



# City of Chicago



O2011-26

Office of the City Clerk

## City Council Document Tracking Sheet

<b>Meeting Date:</b>	1/13/2011
<b>Status:</b>	Introduced
<b>Sponsor(s):</b>	Mayor
<b>Type:</b>	Ordinance
<b>Title:</b>	Amendment of Chapter 11, Section 4 of Municipal Code regarding construction and demolition debris recycling
<b>Committee(s) Assignment:</b>	Committee on Energy, Environmental Protection and Public Utilities



OFFICE OF THE MAYOR  
CITY OF CHICAGO

RICHARD M. DALEY  
MAYOR

January 13, 2011

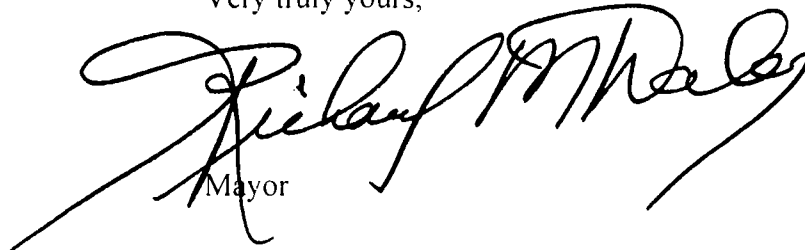
TO THE HONORABLE, THE CITY COUNCIL  
OF THE CITY OF CHICAGO

Ladies and Gentlemen:

At the request of the Commissioner of the Environment, I transmit herewith an ordinance amending the Municipal Code regarding construction and demolition debris recycling.

Your favorable consideration of this ordinance will be appreciated.

Very truly yours,



Mayor

## ORDINANCE

### **BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICAGO:**

**SECTION 1.** Section 11-4-030 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-030 Operating a facility without a permit or authorization – Violation – Penalty.**  
*(Omitted text is not affected by this ordinance)*

(c) In addition to the penalties provided in this section, in addition to the grounds for permit revocation provided elsewhere in this chapter, and in addition to any special permit condition imposed during the issuance of a permit or authorization, the commissioner may revoke, suspend or specially condition, a permit or written authorization, at any time if the permitted person or entity, any owner or officer of the permitted entity, or any person having control of the permitted entity or any of its operations, has:

(1) violated any provisions of this chapter relevant to the permit or authorization or any regulation promulgated thereunder;

(2) violated any term or condition of the permit or authorization;

(3) violated the Chicago Zoning Ordinance relevant to the permit or authorization or any regulation promulgated thereunder; or

(4) knowingly submitted a materially false or inaccurate statement in the permit or authorization application or any other document submitted to the commissioner in support of such application.

(d) The commissioner shall send notice of any permit revocation or suspension to the permittee in accordance with the applicable provisions of subsection (d) of Section 11-4-025 of this Code, and provide any such permittee an opportunity to demand a hearing in accordance with the procedures set forth in subsection (c) of Section 11-4-025 of this Code.

(de) In addition to the penalties provided in this section, the commissioner may issue an emergency or non-emergency cessation or abatement order in accordance with the provisions of Section 11-4-025 of this Code.

**SECTION 2.** Section 11-4-120 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting, in correct alphabetical order, the language underscored, as follows:

**11-4-120 Definitions.**

Except as otherwise defined for purposes of a specific subsection, section, article or chapter in this Title 11, whenever the following words and phrases are used in this Title 11, they shall have the meanings ascribed to them in this section:

*(Omitted text is not affected by this ordinance)*

“Construction and demolition debris” means materials resulting from the construction, remodeling, repair and demolition of utilities, structures, buildings, and roads, including but not limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed asphalt pavement; glass; plastics; electrical wiring; and piping or metals incidental to any of those materials blocks, broken-concrete, plaster, wire-and-wood-lath, timbers-and-wood-building products-and-other-similar-non-putrescible-materials.

*(Omitted text is not affected by this ordinance)*

“Landscape waste” means grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as the a result of the care of lawns, shrubbery, vines and trees, and includes any discarded fruits, vegetables and other vegetative material or crop residue generated in the care of a garden. The term “landscape waste” does not include soil other than incidental soil (e.g soil attached to sod or attached to other materials accumulated as a result of the care of lawns, shrubbery, vines, trees or a garden).

*(Omitted text is not affected by this ordinance)*

“Modified transfer station” means a transfer station that accepts only (1) landscape waste, as defined in this Section 11-4-120; and/or (2) construction and demolition debris, as defined in this Section 11-4-120.

*(Omitted text is not affected by this ordinance)*

~~“Recyclable material” means any aluminum or scrap, bimetal or tin cans, glass and paper products, rubber, textiles, wood, landscape waste, or plastic products such as polyethylene terphlate, high-density polyethylene, low-density polyethylene, polystyrene or polypropylene and any other material designated by the commissioner by rule or regulation:~~

*(Omitted text is not affected by this ordinance)*

“Recycling facility” means any building, portion of a building or area in which Type A, Type B, Type C or Type D recyclable material, as defined in Section 11-4-2510, is collected,

stored, or processed for the purpose of marketing the material for use as raw material in the manufacturing process of new, reused or reconstituted products.

*(Omitted text is not affected by this ordinance)*

**SECTION 3.** Section 11-4-250 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-250 Waste handling facilities – Permit required.**

It shall be unlawful for any person to install or to construct or to operate any liquid waste handling facility, resource recovery facility, incinerator, sanitary landfill, transfer station or any facility that disposes, handles or treats any waste in the City of Chicago without having obtained a written permit from the commissioner. No changes, additions, expansions or extensions to any such facility shall be made without having obtained a written permit from the commissioner. For purposes of this section, an expansion or extension shall refer to an increase in the horizontal and/or vertical permitted limits of a facility or an increase in the handling or treating capacity of a facility; provided, however, the definition of expansion with respect to sanitary landfills shall be as set forth in Section 11-4-120.

Any operation at any such facility which exceeds or does not comply with the plans and specifications of the facility reviewed and approved by the commissioner pursuant to the permit application, or which violates any of the conditions imposed by the permit, or which violates any provisions of this chapter or rules or regulations promulgated hereunder shall be a violation of this section and will constitute grounds for revocation of the permit.

*(Omitted text is not affected by this ordinance)*

**SECTION 4.** Section 11-4-370 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-370 Proof of responsibility.**

(a) ~~Proof of responsibility will be required in the following enumerated instances, in the forms specified:~~

~~1. If the proposed plans and specifications submitted pursuant to Section 11-4-270 are not sufficiently complete in the judgment of the commissioner to show that the~~

equipment or device for which such plans and specifications were submitted can consistently comply with and can be operated within the provision of this chapter, either because the design or process is unconventional or untried, or because the person has elected to omit confidential details or because there are insufficient data on which to estimate the pollution potential, the commissioner is authorized to require as a condition precedent to the issuance of an installation permit or certificate of operation, proof of financial responsibility and of ability to make any changes that may be required after construction to insure compliance with the provision of this chapter. Such proof, in the discretion of the commissioner, may be a written statement to such effect, signed by the owner or a responsible officer of a financially sound organization, or a written guarantee of performance signed by a responsible supplier or contractor or other responsible person. The responsibility of any such person or soundness of any such organization shall be a matter within the judgment of the commissioner, subject to the right of appeal. Pursuant to this subsection (a)(1), the commissioner may require any such person as owner, operator, contractor or other person to file with the commissioner security for the benefit of the City of Chicago in a sum not to exceed \$100,000.00. The purpose of the security is to assure compliance with the requirements of such installation permit or certificate of operation, the provisions of this Code and the rules and regulations promulgated hereunder, and to secure payment of the city's expenses in correcting any dangerous condition or defect existing in the equipment or process or in responding to any emergency created as a result of the equipment, process or operation.

(a) 2. Pursuant to this subsection (a)(2), prior Prior to the issuance of a permit for incinerators, liquid waste handling facilities, resource recovery facilities, sanitary landfills, or transfer stations or Class V recycling facilities, the applicant shall post security.

*(Omitted text is not affected by this ordinance)*

Security pursuant to this subsection (a)(2) shall be provided in the following amounts, unless the commissioner, upon review of the applicant's operations, determines that a higher amount is necessary:

Transfer station. . . . .	100,000.00
Incinerator. . . . .	250,000.00
Liquid waste handling facility. . . . .	250,000.00
Resource recovery facility. . . . .	250,000.00
Sanitary landfill. . . . .	500,000.00
<u>Class V recycling facility. . . . .</u>	<u>25,000.00</u>

(b) The commissioner shall specify the form, or forms, or combination of forms of security required by this section, and the commissioner shall also specify the amount or amounts of any such security, except where any such amount is explicitly fixed by this section. The

commissioner may increase the amount of the required security based on a review of the facility's operations during the time the permit is issued or renewed. Any such specification by the commissioner as to form or amount shall be subject to the approval of the city comptroller and the corporation counsel.

*(Omitted text is not affected by this ordinance)*

**SECTION 5.** Section 11-4-1525 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-1525 Permit – Conditions of issuance.**

The commissioner shall not grant a new permit or renew an existing permit for any incinerator, liquid waste handling facility, resource recovery facility, sanitary landfill, or transfer station; or any facility that disposes, handles or treats any waste in the City of Chicago, unless each of the following conditions has been met:

*(Omitted text is not affected by this ordinance)*

**SECTION 6.** Section 11-4-1527 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-1527 Permit fees.**

(a) The annual permit fees to operate a sanitary landfill, resource recovery facility, solid waste incinerator, liquid waste handling facility, transfer station; or waste handling facility shall be as follows:

*(Omitted text is not affected by this ordinance)*

~~The City of Chicago shall be exempt from payment of such fees.~~

*(Omitted text is not affected by this ordinance)*

**Transfer station or waste handling facility fees:**

New or existing facility . . . . . \$10,000.00

Modified transfer station fee:

New or existing facility . . . . .                      \$2,500.00

(b) The City of Chicago shall be exempt from the payment of any fee required under this section.

**SECTION 7.** Section 11-4-1905 is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-1905** Construction or demolition site waste recycling.

(1) For purposes of this section, the term(s):

*(Omitted text is not affected by this ordinance)*

(b) “Construction and demolition debris” has the meaning ascribed to the term in Section 11-4-120 of this Code, ~~but does not include materials that are contaminated by lead, asbestos, or other hazardous materials in such a way as to render recycling illegal or impossible.~~

*(Omitted text is not affected by this ordinance)*

(2) Any project subject to this section shall be required to recycle or reuse construction or demolition debris produced on site as part of construction or demolition activities by meeting the following requirements:

*(Omitted text is not affected by this ordinance)*

(b) The contractor on a project that is issued a permit with an application date on or after January 1, 2007, shall cause to be recycled or reused at least 50 percent, as measured by weight, of the total amount of construction and demolition debris, ~~as measured by weight, produced on site that does not contain lead, asbestos or other hazardous materials in such a way as to render recycling of such material illegal or impossible.~~

*(Omitted text is not affected by this ordinance)*

(4) *Certification Of Compliance And Enforcement.*

(a) Within 30 days of completion of a project meeting the requirements of



subsection (3) of this section, the contractor shall submit documentation as described herein to report compliance with this section and regulations promulgated thereunder. Documentation ~~The documentation required under this subsection (4)(a)~~ shall be in a form prescribed by the commissioner of the environment and consist of notarized affidavits from the contractor and the waste-hauler or recycler for the project certifying the extent to which the project complies with subsection (2).

*(Omitted text is not affected by this ordinance)*

~~(c) A contractor who fails to submit the required documentation as provided herein shall be subject to the full amount of the fines specified in subsection (6) as if no amount of construction and demolition debris was recycled or reused, and may be subject to suspension or revocation of the contractor's general contractor's license by the mayor or the commissioner of business affairs and consumer protection pursuant to Chapter 4-4 of this Code. The contractor may file a written request with the Department of Environment for a hearing to determine the applicability of this section and/or the amount of fine due, which hearing shall be conducted by the Department of Administrative Hearings. Reserved.~~

*(Omitted text is not affected by this ordinance).*

(6) In addition to any other penalty provided by law, ~~C~~contractors who fail to meet the recycling percentages identified in subsection (2) shall be subject to the following fines:

*(Omitted text is not affected by this ordinance)*

(7) Violation – Penalty. Except as otherwise provided in this section, and in addition to any other penalty provided by law, any person who violates any requirement of this section shall be subject to a fine of not less than \$300.00 nor more than \$1,000.00 for each offense. Each day that a violation continues shall constitute a separate and distinct offense to which a separate fine shall apply.

**SECTION 8.** Section 11-4-1910 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting, in correct alphabetical order, the language underscored, as follows:

**11-4-1910 Definitions.**

As used in this article, unless the context clearly indicates otherwise:

*(Omitted text is not affected by this ordinance)*

~~“Construction or demolition debris” shall mean solid waste consisting of incidental construction/demolition debris and reprocessable construction/demolition material generated from construction or demolition activities~~ has the meaning ascribed to the term in Section 11-4-120.

“Contractor” has the meaning ascribed to the term in Section 11-4-1905(1)(a).

“Governmental entity” means any unit of federal, state or local government.

*(Omitted text is not affected by this ordinance)*

“Owner or operator” has the meaning ascribed to the term in Section 11-4-120.

*(Omitted text is not affected by this ordinance)*

“Reprocessed” or “reprocessing” or “reprocessing activity” means crushed or broken into smaller constituent parts by a reprocessing device.

*(Omitted text is not affected by this ordinance)*

**SECTION 9.** Section 11-4-1930 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

11-4-1930 **R**eprocessable construction/demolition material permit.

(A) *Permit Required.* No Except as otherwise provided in Section 11-4-1935, no reprocessable construction/demolition material shall be sent to, received by, stored at or reprocessed at any location except at a facility properly zoned and for which a permit for a reprocessable construction/demolition material facility has been issued pursuant to this chapter. This section shall not be interpreted as a ban on the disposal of reprocessable construction/demolition material in a properly zoned and permitted sanitary landfill or the receipt and transfer of such material at a properly zoned and permitted waste transfer facility.

*(Omitted text is not affected by this ordinance)*

**SECTION 10.** Section 11-4-1935 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-1935 Construction site reprocessing authorization.**

(a) (1) Written authorization required. Reprocessable Except as otherwise provided in subsection (a)(2) of this section, reprocessable construction/demolition materials; which are generated from construction, demolition; or renovation may be reprocessed, as defined in Section 11-4-1910, and stored on a temporary basis at on the site at which the construction, demolition or renovation occurred if all of the following requirements are met: and then used solely on-site for construction activities only if the reprocessing activity has been authorized in writing by the commissioner. No reprocessing activity may begin until reviewed and approved in writing by the commissioner.

(i) before any reprocessing occurs on the demolition site, such reprocessing is reviewed, authorized and approved in writing by the commissioner; and

(ii) the owner of the property on which the reprocessing or temporary storage occurs or the owner's authorized agent consents in writing to such reprocessing and temporary storage; and

(iii) the construction/demolition material to be reprocessed does not contain lead, asbestos or any other hazardous material of the type that renders recycling of such material illegal or impossible; and

(iv) prior to reprocessing such construction/demolition material, the contractor (A) verifies that each load of material to be reprocessed does not contain lead, asbestos or any other hazardous material of the type that renders recycling of such material illegal or impossible; and (B) creates and maintains a written record documenting the results of such verification; and (C) provides a copy of the written record required under this paragraph (iv) to the owner or operator of the property on which the reprocessing occurs. The written record required under this paragraph (iv) shall be kept on file by the owner or operator and contractor for a period of three years and, upon request by any authorized city official, shall be made available without undue delay for inspection by such authorized city official; and

(v) all reprocessing of such construction/demolition material occurs on the site at which the demolition occurred; and

(vi) the reprocessed construction/demolition material is used solely on the site at which the demolition occurred for construction activities occurring on such site; and

(vii) the contractor is in compliance with the setback requirements for equipment and materials set forth in subsection (a)(3) of this section.

(2) Governmental entities – Requirements. A governmental entity, as defined in Section 11-4-1910, shall not be subject to the requirement set forth in paragraph (vi) of

subsection (a)(1) of this section, and such governmental entity may transfer for reuse off the site at which the demolition occurred any reprocessable construction/demolition material generated from such demolition if all of the following requirements are met:

(i) the governmental entity complies with the requirements set forth in paragraphs (i), (iii), (iv), (v) and (vii) of subsection (a)(1); and

(ii) the site on which the demolition occurred and the off-site location where such materials will be transferred for reuse are both public improvement projects undertaken by the same or different governmental entity; and

(iii) prior to transferring the reprocessed construction/demolition material from the demolition site to the off-site location where such material will be reused, the government entity registers the demolition project on the Chicago Soil and Rubble Exchange website or complies with any other alternative registration process approved by the department in duly promulgated rules or regulations; and

(iv) the governmental entity maintains on the Chicago Soil and Rubble Exchange website or any other alternative registration process approved by the department in duly promulgated rules or regulations current and accurate records identifying the date and location of all anticipated and actual transfers of such reprocessed construction/demolition material.

(3) *Setback requirements.* No reprocessing device or stockpile of reprocessable construction/demolition material or of reprocessed construction/demolition material shall be located in the following places:

(i) within 200 feet of any school, childcare facility, hospital, residential building or mixed occupancy building with a residential use;

(ii) within 100 feet of any building other than a school, childcare facility, hospital, residential building or mixed occupancy building with a residential use;

(iii) within 100 feet of any public way or park.

Provided, however, that if (A) compliance with the requirements of this subsection (a)(3) is physically impossible or hazardous due to the configuration, location or unique characteristics of the site where reprocessing or temporary storage of construction/demolition material is authorized under this section; and (B) the contractor can show either that (1) the issuance of a certificate of exemption under this subsection will not create a public nuisance or adversely impact the surrounding area or surrounding users, or (2) such public nuisance or adverse impact can be eliminated or substantially reduced through the adoption of an abatement or mitigation

plan, the contractor may apply to the commissioner for a written certificate of exemption from compliance with the requirements of this subsection (a)(3). Prior to granting any exemption under this subsection (a)(3), the commissioner or the commissioner's designee may conduct a site visit of the subject premises to determine the validity of the claim of impossibility or hazard and to determine whether the issuance of a certificate of exemption under this subsection will create a public nuisance or adversely impact the surrounding area or surrounding users. Upon a showing of physical impossibility or hazard and a finding that the issuance of a certificate of exemption either will not create a public nuisance or adversely impact the surrounding area or surrounding users or that such public nuisance or adverse impact can be eliminated or substantially reduced through the adoption of an abatement or mitigation plan, as determined by the commissioner, the commissioner shall issue to the contractor a certificate of exemption for such premises. Such certificate of exemption shall specify the scope and conditions of any exemption so granted, and may include provisions for nuisance abatement or other reasonable measures to eliminate or substantially reduce any adverse impact on the surrounding area or surrounding users. Such certificate shall be valid for the period of time identified on the face of such certificate or until such time that the certificate is revoked for cause by the commissioner following notice and a hearing before the commissioner, whichever comes first. A copy of such certificate shall be posted by the contractor in a conspicuous place on the premises covered by such certificate and, upon request by any authorized city official, shall be made available by the contractor for inspection by such city official.

(4) *Duration of authorization.* The written authorization issued under subsection (a)(1) of this section shall be valid for a period of three months, as measured from the date on which such authorization is issued. Provided however, that upon application to the commissioner, such authorization may be extended for an additional period(s) of time, each of which additional period shall not exceed three month, so long as construction/demolition material requiring reprocessing and reprocessing equipment remain on the site. Any reprocessable or reprocessed construction/demolition material that is not used on or removed from the site within three months of the date on which the temporary authorization is issued or extended under this section shall be subject to the Construction Site Cleanliness Rules and Regulations for the Maintenance of Construction Site Stockpiles and Prevention of the Off-Site Dispersion of Dust and Debris from Construction Sites promulgated by the department under Section 13-32-125.

(5) *Enforcement.* It shall be unlawful for any person to violate any of the requirements set forth in this subsection (a). In addition to any other penalty provided by law, any person who violates any of the requirements of this subsection (a) shall be subject to the penalty set forth in subsection (d) of this section. In addition, any authorization issued under this subsection (a) shall be subject to suspension or revocation for cause by the commissioner following notice in accordance with the applicable provisions of subsection (d) of Section 11-4-025 and an opportunity to demand a hearing in accordance with the procedures set forth in subsection (c) of Section 11-4-025.

*(Omitted text is not affected by this ordinance)*

**SECTION 11.** Section 11-4-2050 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-2050 Enforcement.**

*(Omitted text is not affected by this ordinance)*

C. Fines. Except as otherwise provided in this article, Penalties imposed for violations of any provisions of this article shall be as provided in Section 11-4-030 of this Code. In addition to any other penalties imposed in this article penalty provided by law, the city shall be entitled to recover a penalty or cost as provided in Section 11-4-025 of this Code.

**SECTION 12.** Section 11-4-2150 of the Municipal Code of the City of Chicago is hereby amended by inserting the language underscored, as follows:

**11-4-2150 Environmental standards related to the demolition, renovation, asbestos abatement and maintenance, sandblasting, chemical washing, and grinding of buildings, facilities or other structures.**

*(Omitted text is not affected by this ordinance)*

(b) *Definitions.* For purposes of this section, the following terms shall have the following meanings:

*(Omitted text is not affected by this ordinance)*

*Demolition fill material* means any combination of uncontaminated brick, broken concrete, stone, mortar, sand, gravel or dirt so long as it: (i) contains no pieces of material, exceeding 12 inches in its largest dimension; (ii) contains no organic material or rebar, pipes, posts, splinters, lumber, glass or sheet metal; and (iii) except as otherwise provided in subsection (a)(2) of Section 11-4-1935, is used as fill on the same site where the demolition generating the material occurred, in a foundation below the existing grade of the site, with sufficient room remaining to accommodate the required final cover.

*(Omitted text is not affected by this ordinance)*

**SECTION 13.** Section 11-4-2170 of the Municipal Code of the City of Chicago is hereby amended by inserting the language underscored, as follows:

**11-4-2170 Demolitions and renovations: permit and notification requirements; performance standards for asbestos abatement; control and disposal of dust and debris.**  
*(Omitted text is not affected by this ordinance)*

(d) *Disposal of debris from demolitions and renovations.* Debris from demolitions or renovations, excluding demolition fill material as defined in Section 11-4-2150 which is used exclusively to fill below grade into the existing foundation or excavation area of a building left open by the demolition of said building, constitutes waste as that term is defined in Section 11-4-120 and, except as otherwise provided in Section 11-4-1935, shall only be properly disposed of or recycled at a facility duly licensed to accept such material.

*(Omitted text is not affected by this ordinance)*

**SECTION 14.** Section 11-4-2510 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-2510 Definitions.**

*(Omitted text is not affected by this ordinance)*

*Landscape waste* means grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as a result of the care of lawns, shrubbery, vines and trees, and includes any discarded fruits, vegetables and other vegetative material or crop residue generated in the care of a garden. The term “landscape waste” does not include soil other than incidental soil (e.g soil attached to sod or attached to other materials accumulated as a result of the care of lawns, shrubbery, vines, trees or a garden).

*(Omitted text is not affected by this ordinance)*

*Processing* means manual, mechanical or automated separation of recyclable material from other materials; separation of recyclable materials from each other; clearing cleaning, bundling, compacting, cutting or packing of recyclable material. Processing shall not include melting, rening, smelting, vulcanizing or purification by application of heat or chemical process.

*Recyclable material* means ~~any aluminum or ferrous or nonferrous scrap metal, bimetal or tin cans, glass and paper products, rubber, textiles, landscape waste or plastic products such as polyethylene terephthate, high density polyethylene, low density polyethylene, polystyrene or~~

~~polypropylene, and any other material designated by the commissioner by rule or regulation. For Class III permits only, “recyclable material” shall also include organic waste or livestock waste. For Class IV permits only, “recyclable material” shall also include used vehicles or used vehicle parts that are: (1) collected, bought, sold, bartered or exchanged either at wholesale or retail; and (2) dismantled for resale or processed for use as raw material.~~ shall be categorized as Type A, Type B, Type C or Type D recyclable material and shall have the meaning ascribed to each such type, as follows:

“Type A recyclable material(s)” means any aluminum or ferrous or non-ferrous scrap metal; bi-metal or tin cans; glass products; paper products; rubber; textiles; plastic products, such as polyethelene terephthalate, high density polyethylene, low density polyethylene, polystyrene or polypropolene; and any other material designated as Type A recyclable material by the commissioner in duly promulgated rules and regulations.

“Type B recyclable material(s)” means organic waste, and any other material designated as Type B recyclable material by the commissioner in duly promulgated rules and regulations.

“Type C recyclable material(s)” means used motor vehicles or motor vehicle parts, and any other material designated as Type C recyclable material by the commissioner in duly promulgated rules and regulations.

“Type D recyclable material(s)” means construction and demolition debris that does not contain lead, asbestos or any other hazardous material in such a way as to render recycling of such material illegal or impossible and that has been rendered reusable and is reused, or that would otherwise be disposed of or discarded but is collected or separated and returned to the economic mainstream in the form of raw materials or product, and any other material designated as Type D recyclable material by the commissioner in duly promulgated rules and regulations.

*(Omitted text is not affected by this ordinance)*

**SECTION 15.** Section 11-4-2520 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-2520 Permit – Required.**

No person shall engage in the business of operating a recycling facility in the City of Chicago without having first obtained a written recycling facility permit from the commissioner.

*(Omitted text is not affected by this ordinance)*



~~Prior to the issuance of any initial recycling facility permit, a letter of approval from the zoning administrator indicating that the recycling facility is approved, or approved with conditions, for operation within the zoning district shall be included in the application for a permit. No initial recycling facility permit shall be issued for any class of recycling facility set forth in Section 11-4-2540 unless the activity for which a permit under this section is required is a permitted or special use within the zoning district where such facility will be authorized to operate.~~

**SECTION 16.** Section 11-4-2530 is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-2530 Permit – Application.**

Application for a permit for a recycling facility shall be made to the commissioner on forms provided by him the commissioner for such purpose. Applicants shall provide the following information at a minimum:

*(Omitted text is not affected by this ordinance)*

- (I) Any other information requested by the commissioner.

It is a condition of the permit that all information in the permit application be kept current. Any change in required information shall be reported to the commissioner, on a form provided by the department, no later than ten business days after such change has occurred.

**SECTION 17.** Section 11-4-2540 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-4-2540 Permit – Classification.**

Permits for recycling facilities shall be divided into ~~four~~ five classes, as follows:

Class I facilities are recycling facilities which contain receptacles for the collection of Type A and Type B recyclable materials only. ~~Only manual~~ Manual separation only of Type A and Type B recyclable materials shall be permitted at a Class I facility.

Class II facilities are recycling facilities which for the collection of Type A and Type B recyclable materials only. Class II facilities may perform any activity permitted in a Class I

facility and which may also perform processing.

Class III facilities are recycling facilities for the collection of Type A and Type B recyclable materials only, which Class III facilities may perform any activity permitted in a Class II facility and which may also engage in composting.

Class IV facilities are divided into Class IVA facilities and Class IVB facilities. Class IVA facilities are recycling facilities which for the collection of Type A and Type C recyclable materials only. Class IVA facilities may perform any activity permitted in a Class II facility engage in processing, such as cleaning, bundling, compacting or packing of recyclable materials, and may also dismantle, engage in the manual, either manually or with the use of small power tools, dismantling of used vehicles and used vehicle parts for resale. Class IVB facilities are recycling facilities for the collection of Type A and Type C recyclable materials only. Class IVB facilities may perform any activity permitted in a Class IVA facility and may also engage in the shredding, crushing or other large-scale processing of vehicles.

Class V facilities are recycling facilities for the collection of Type D recyclable materials only. Manual sorting and temporary storage only of Type D recyclable material shall be permitted at a Class V facility.

(b) Under no circumstances shall any recycling facility permitted or required to be permitted under this section engage in the recovery of materials for fuel in combustion or energy production processes.

**SECTION 18.** Section 11-4-2550 of the Municipal Code of the City of Chicago is hereby amended by inserting the language underscored, as follows:

**11-4-2550 Permit – Fees.**

The term of a recycling facility permit shall be for three years. The three year fee shall be:

*(Omitted text is not affected by this ordinance)*

Class V . . . . . 4,500.00

**SECTION 19.** Chapter 11-4 of the Municipal Code of the City of Chicago is hereby amended by inserting a new Section 11-4-2565, as follows:

**11-4-2565 Class V recycling facilities – Permitting, operational and recordkeeping requirements.**

(a) *Application.* In addition to the information required under Section 11-4-2530, the application for a permit for a Class V facility shall include the following information:

- (1) the name, address and telephone number of both the facility owner and operator;
- (2) a description of the tagging and recordkeeping procedures the facility will employ to (i) demonstrate compliance with the requirements of subsection (b) of this section; and (ii) identify the source and transporter of any material accepted by the facility; and
- (3) any other information that the commissioner may require.

(b) *Duties.* An owner or operator of a facility accepting exclusively construction and demolition debris for transfer, storage or treatment shall have the following duties:

- (1) to limit the percentage of incoming non-recyclable construction and demolition debris to 25% or less of the total incoming construction and demolition debris, as calculated per load by volume, so that 75% or more of the construction and demolition debris accepted per load by volume consists of recyclable construction and demolition debris;
- (2) within 48 hours of receipt of construction and demolition debris at the facility, to sort such debris in order to separate the recyclable construction and demolition debris from the non-recyclable construction and demolition debris to be disposed of or discarded;
- (3) within 24 hours of the separation of debris required under item (2) of this subsection (b), to transport off site for disposal, in accordance with all applicable federal, State and local requirements, all non-recyclable construction and demolition debris;
- (4) within 45 days of its receipt at the facility, to transport all putrescible recyclable construction and demolition debris or combustible recyclable construction and demolition debris to a properly permitted recycling or disposal facility;
- (5) within 3 months of its receipt at the facility, to transport all non-putrescible recyclable construction and demolition debris for recycling or disposal;
- (6) to employ tagging and recordkeeping procedures to (i) demonstrate compliance with the requirements of this subsection (b); and (ii) identify the source and transporter of material accepted by the facility;
- (7) to control odor, noise, combustion of materials, disease vectors, dust and litter;

(8) to control, manage and dispose of any storm water runoff and leachate generated at the facility in accordance with applicable federal, State and local requirements; and

(9) to control access to the facility.

(c) *Recordkeeping – Required.* An owner or operator of a facility accepting exclusively construction and demolition debris for transfer, storage or treatment shall keep and maintain on file for a period of three years written records containing the following information:

(1) the total tonnage or cubic yards of all non-recyclable construction and demolition debris accepted at the facility per load, as calculated on a daily basis;

(2) the name and location of each disposal site used for the disposal of any non-recyclable construction and demolition debris accepted at the facility;

(3) the percentage of non-recyclable material transported to each disposal site required to be identified under paragraph (2) of this subsection (c);

(4) the total tonnage or cubic yards of all recyclable material accepted at the facility per load, as calculated on a daily basis;

(5) the name and location of the individual, facility or business to which such recyclable material is transported;

(6) the percentage of recyclable material transported to each individual, facility or business required to be identified under paragraph (5) of this subsection (c); and

(7) any other information that the commissioner may require.

(d) *Permit revocation.* In addition to any other penalty provided by law, the commissioner may revoke the permit of the owner and/or operator of a Class V facility (1) for any violation of this section or article; or (2) if such owner/and or operator is found to be engaging in open dumping or fly dumping or otherwise disposing of construction/demolition material or debris in violation of this chapter or any other provision of the Municipal Code of Chicago.

**SECTION 20.** Section 11-5-020 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**11-5-020 Definitions.**

*(Omitted text is not affected by this ordinance)*

(t) “Recyclable material” means any one of the materials material listed in Section 11-5-021(d), 11-5-022(d) or 11-5-023(d) of this ordinance chapter or as defined in Section ~~11-4-120~~ of the Municipal Code any Type A recyclable material as set forth in Section 11-4-2510.

*(Omitted text is not affected by this ordinance)*

**SECTION 21.** Section 4-36-110 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**4-36-110 Unlawful acts.**

It shall be unlawful for any licensee or for any person requiring a license under this chapter to engage in any of the following conduct:

*(Omitted text is not affected by this ordinance)*

(O) To fail to comply with any requirement applicable to the contractor on a project as set forth in Article XIV of Chapter 11-4 of this Code.

The prohibitions set forth in subsections (A) through (N) (O) of this section shall apply to the licensee and to all controlling persons.

**SECTION 22.** Section 17-5-0207 of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**17-5-0207 Use Table and Standards.**

USE GROUP	District			Use Standard	Parking Standard
	M1	M2	M3		
Use Category					
Specific Use Type					
P= permitted by-right S = special use approval required PD = planned development approval required - = Not allowed					
<i>(omitted text is unaffected by this ordinance)</i>					
<b>INDUSTRIAL</b>					

EE. Mining/Excavation		-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
FF. Recycling Facilities						
1.	Class I	P	P	P		§ 17-10-0207-U
2.	Class II	S	P	P		§ 17-10-0207-U
3.	Class III	-	S	P	§ 17-9-0117	§ 17-10-0207-U
4.	Class IVA	-	S	S	§ 17-9-0117	§ 17-10-0207-U
5.	Class IVB	-	-	S	§ 17-9-0117	§ 17-10-0207-U
6.	Class V	-	-	S	§ 17-9-0117	§ 17-9-0117-U
<i>(omitted text is not affected by this ordinance)</i>						
HH. Waste-Related Use						
1.	Hazardous Materials Disposal or Storage	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
2.	incinerators	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
3.	Incinerators, Municipal	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
4.	Liquid Waste Handling Facilities	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
5.	Reprocessable Construction/Demolition Material Facility	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
6.	Resource Recovery Facilities	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
7.	Sanitary Landfills	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
8.	Transfer Stations	-	-	S	§ 17-9-0117-5	§ 17-10-0207-U
9.	<u>Modified Transfer Stations</u>	-	-	S	§ 17-9-0117	§ 17-10-0207-U
<i>(omitted text is not affected by this ordinance)</i>						

*(Omitted text is not affected by this ordinance)*

**SECTION 23.** Section 17-6-0403-F of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**17-6-0403-F Use Table and Standards.**

USE GROUP	PMD (Planned Manufacturing District)															Use Standard					
	No. 1		No. 2		No. 3	No. 4		No. 5	No. 6	No. 7		No. 8	No. 9	No. 10	No. 11		No. 12	No. 13	No. 14	No. 15	
Specific Use Type	A	B	A	B		A	B			A	B				A	B					A
P = permitted by right S = special use approval req'd PD = planned development approval req'd - = not allowed																					
<i>(omitted text is not affected by this ordinance)</i>																					
<b>INDUSTRIAL</b>																					
<i>(omitted text is not affected by this ordinance)</i>																					

GG. Mining/Excavation		S	-	S	-	S	-	S	-	-	-	-	-	-	-	-	-	-	-	-	§ 17-9-0117-5
HH. Recycling Facilities																					
1.	Class I	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2.	Class II	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3.	Class III	P	S	P	S	P	P	S	S	S	S	-	S	S	-	S	-	P	P	P	-
																					§ 17-9-0117
4.	Class IVA	S	S	S	S	S	S	S	S	S	S	-	S	S	S	S	-	S	-	S	-
																					§ 17-9-0117
5.	Class IVB	S	-	S	-	S	-	S	-	S	-	-	S	S	S	S	-	S	-	S	-
																					§ 17-10-0207- H § 17-9-0117
6.	Class V	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>-</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>
																					§ 17-10-0207- H § 17-9-0117
<i>(omitted text is not affected by this ordinance)</i>																					
JJ. Waste Related Uses																					
1.	Hazardous Materials Disposal or Storage	S	-	S	-	S	-	S	-	P	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
2.	Incinerators	S	-	S	-	S	-	S	-	-	-	-	-	S	-	-	-	S	S	S	-
																					§ 17-9-0117-5
3.	Incinerators, Municipal	S	-	S	-	S	-	S	-	-	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
4.	Liquid Waste Handling Facilities	S	-	S	-	S	-	S	-	S	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
5.	Reprocess-able Construction / Demolition Material Facility	S	-	S	-	S	-	S	-	S	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
6.	Resource Recovery Facilities	S	-	S	-	S	-	S	-	S	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
7.	Sanitary Landfills	S	-	S	-	S	-	S	-	S	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
8.	Transfer Stations	S	-	S	-	S	-	S	-	S	-	-	S	S	-	S	-	S	S	S	-
																					§ 17-9-0117-5
9.	Modified Transfer Stations	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>-</u>	<u>S</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>-</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>-</u>
																					§ 17-9-0117

*(Omitted text is not affected by this ordinance)*

**SECTION 24.** Section 17-9-0117 of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**17-9-0117 Waste-related Uses, Recycling Facilities and Mining/Excavation Uses.** Buildings, storage areas and work areas on the site of all *waste-related uses, Class III and, Class IVB, and Class V Recycling Facilities* and *mining/excavation* uses must be located at least 150 feet from all R zoning district boundaries, provided that landfills, hazardous waste disposal/storage, and windrow composting facilities must be located at least 660 feet from R zoning district boundaries.

**SECTION 25.** Section 17-17-0105-A of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby repealed in its entirety.

**SECTION 26.** Section 17-17-0105-D of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

**17-17-0105-D Recycling Facilities.** Any building, portion of building or area in which *Type A, Type B, Type C or Type D recyclable material* is collected, stored, or processed for the purpose of marketing the material for use as raw material in the manufacturing process of new, reused or reconstituted products. Under no circumstances shall any recycling facility engage in the recovery of materials for fuel in combustion or energy production processes.

1. Recycling Facility, Class I. ~~A recycling facility where recyclable materials are temporarily stored or collected, or processed by manual separation. A recycling facility which contains receptacles for the collection of Type A and Type B recyclable materials only. Manual separation only of Type A and Type B recyclable materials shall be permitted at a Class I facility.~~ (Note: consumer-oriented collection boxes for newspapers, cans and glass items are considered an *accessory use* and may be allowed in any zoning district.)

2. Recycling Facility, Class II. ~~A recycling facility which, in addition to any activity permitted in a Class I Recycling Facility, engages in processing of recyclable materials for the collection of Type A and Type B recyclable materials only. Class II facilities may perform any activity permitted in a Class I facility and may also perform processing,~~ such as cleaning, bundling, compacting, cutting or packing of recyclable materials.

3. Recycling Facility, Class III. ~~A recycling facility which, in addition to any activity~~



~~permitted in a Class II Recycling Facility, performs composting for the collection of Type A and Type B recyclable materials only. Class III facilities may perform any activity permitted in a Class II facility and may also engage in composting.~~

4. ~~Recycling Facilities, Class IVA and Class IVB. Class IVA facilities are recycling facilities which may perform any activity permitted in a Class II facility and may engage in the manual, or with the use of small power tools, dismantling of used vehicles and used vehicle parts for resale for the collection of Type A and Type C recyclable materials only. Class IVA facilities may engage in processing, such as cleaning, bundling, compacting or packing of recyclable materials, and may also dismantle, either manually or with the use of small power tools, used vehicles and used vehicle parts for resale. Class IVB facilities may perform any activity permitted in a Class II facility are facilities for the collection of Type A and Type C recyclable materials only. Class IVB facilities may perform any activity permitted in a Class IVA facility and may also engage in the shredding, crushing or other large-scale processing of vehicles.~~

5. Recycling Facilities, Class V. A recycling facility for the collection of Type D recyclable materials only. Manual sorting and temporary storage only of Type D recyclable material shall be permitted at a Class V facility.

*(Omitted text is not affected by this ordinance)*

**SECTION 27.** Section 17-17-0105-F of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by inserting the language underscored, as follows:

**17-17-0105-F Waste-Related Uses.**

1. Hazardous Waste Treatment or Storage. As defined in Chapter 11-4 of the Municipal Code (Environmental Protection and Control)
2. Incinerators. As defined in Chapter 11-4 of the Municipal Code (Environmental Protection and Control)
3. Incinerators, Municipal. As defined in Chapter 11-4 of the Municipal Code (Environmental Protection and Control)
4. ~~As defined in Chapter 11-4 of the Municipal Code (Environmental Protection and Control)~~ Liquid Waste Handling Facility. A facility that treats or disposes of liquid waste, liquid special waste, or liquid hazardous waste.
5. Reprocessable Construction / Demolition Material Facility. A site used for purposes of receiving, storing, reprocessing and transport of *reprocessible*

*construction/demolition material*. Such facility may not include any operation used for hot mixed asphalt *processing*.

6. **Resource Recovery Facilities.** A facility that uses non-hazardous solid waste as fuel in a process specifically designed for the purpose of waste disposal or volume reduction and which produces thermal energy or electricity as a by-product.

7. **Sanitary Landfills.** A facility originally licensed under Chapter 11-4 of the Municipal Code and operating as amended before January 1, 1985 and the Illinois Environmental Protection Act for the disposal of waste on land without creating nuisances or hazards to the public health.

8. **Transfer Stations.** A facility for the transfer and packing of solid waste from smaller collecting vehicles to larger transport vehicles.

9. **Modified Transfer Station.** A transfer station that accepts only landscape waste and/or construction and demolition debris.

**SECTION 28.** Article 17-17-0200 (General Terms) of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by inserting, in correct numerical order, a new Section 17-17-0240.3, as follows:

**17-17-0240.3 Construction and Demolition Debris.** Materials resulting from the construction, remodeling, repair and demolition of utilities, structures, buildings, and roads, including but not limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed asphalt pavement; glass; plastics; electrical wiring; and piping or metals incidental to any of those materials.

**SECTION 29.** Article 17-17-0200 (General Terms) of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by inserting, in correct numerical order, a new Section 17-17-0278.7, as follows:

**17-17-0278.7 Landscape Waste.** Grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as a result of the care of lawns, shrubbery, vines and trees, and includes any discarded fruits, vegetables and other vegetative material or crop residue generated in the care of a garden. The term "landscape waste" does not include soil other than incidental soil (e.g soil attached to sod or attached to other materials accumulated as a result of the care of

lawns, shrubbery, vines, trees or a garden).

**SECTION 30.** Section 17-17-02143 of the Municipal Code of the City of Chicago is hereby amended by deleting the language stricken through and by inserting the language underscored, as follows:

~~17-17-02143 Recyclable Materials. Any aluminum or scrap, bi-metal or tin cans, glass and paper products, rubber, textiles, landscape waste or plastic products such as polyethylene terephthalate, high-density polyethylene, low-density polyethylene, polystyrene and polypropylene, and any other material designated by the commissioner by rule or by regulation. For Class III permits only, “recyclable material” shall also include organic waste or livestock waste. Recyclable material shall be categorized as Type A, Type B, Type C or Type D recyclable material and shall have the meaning ascribed to each such type, as follows:~~

1. *Type A recyclable material.* Any aluminum or ferrous or non-ferrous scrap metal; bi-metal or tin cans; glass products; paper products; rubber; textiles; plastic products, such as polyethelene terephthalate, high density polyethylene, low density polyethylene, polystyrene or polypropolene; and any other material designated as Type A recyclable material by the commissioner of the environment in duly promulgated rules and regulations.

2. *Type B recyclable material.* Organic waste and any other material designated as Type B recyclable material by the commissioner of the environment in duly promulgated rules and regulations.

3. *Type C recyclable material.* Used motor vehicles or motor vehicle parts, and any other material designated as Type C recyclable material by the commissioner of the environment in duly promulgated rules and regulations.

4. *Type D recyclable material.* Construction and demolition debris that does not contain lead, asbestos or any other hazardous material in such a way as to render recycling of such material illegal or impossible and that has been rendered reusable and is reused, or that would otherwise be disposed of or discarded but is collected or separated and returned to the economic mainstream in the form of raw materials or product; and any other material designated as Type D recyclable material by the commissioner of the environment in duly promulgated rules and regulations.

**SECTION 31.** Section 17-17-02144 of the Chicago Zoning Ordinance, Title 17 of the Municipal Code of Chicago, is hereby amended by inserting the language underscored, as

follows:

**17-17-02144 Recycling.** The collection, temporary storage, and minimal *processing* of *recyclable materials* for the purpose of marketing that material for use as a raw material in a manufacturing process or reuse as consumer products. For the purpose of interpreting this definition only, the term “processing” means manual, mechanical or automated separation of *recyclable materials* from other materials; separation of *recyclable materials* from each other; cleaning, bundling, compacting, cutting or packing of *recyclable material(s)*. “Processing” in this context does not include melting, rendering, smelting, vulcanizing or purification by application of heat or chemical process.

**SECTION 32.** This ordinance shall take full force and effect upon its passage and publication.