HAZARDOUS MATERIAL SIGNALS

Based on the National Fire Protection Association's Code No. 704M and Federal Standard 313, these signals provide for the identification of hazardous chemical containers as well as dedicated hazardous material storage areas. For placement on storage tanks, processing tanks and vessels, feed hoppers, pipelines and other potentially hazardous equipment. They should also be used to identify potentially hazardous areas for the benefit of both employees and outside emergency response personnel.

Made of pressure sensitive B-946 premium outdoor grade vinyl, or B-997 reflective sheeting, the upper three corners of the signal rate health, fire and reactivity hazards on a scale of 0 to 4. Lower corner gives specific hazard information. Use Gothic style Quik-Align® numbers and letters (below) to mark the corners of the signal. Also available is a B-120 Fiber-Shield® fiberglass diamond for mechanically mounting to walls, fences, etc. Comes with four pre-drilled mounting holes for fast and easy installation.

<table>
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<th>Material</th>
<th>Size</th>
<th>Standard Package</th>
<th>Recommended Quik-Align® Size For Numbers &amp; Symbols</th>
<th>Catalog Number</th>
<th>Price 1-9</th>
<th>Price 10+</th>
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For Hazardous Information Placards describing the NFPA hazardous identification coding system see page 168.

Note: Panels are supplied blank. Use Quik-Align® Letters to complete your signal.

QUIK-ALIGN® DIECUT LETTERING

Identify NFPA Hazardous Material Signals with pressure sensitive Quik-Align® Diecut Numbers and Letters. Tough B-933 outdoor grade vinyl characters are black Gothic style, except for radiation trefoil which is magenta, and come 10 identical characters per package. Use for both number ratings (0 through 4) and specific hazard information (*W for “use no water” and * symbol).

TO ORDER:
Substitute the desired character, number or letter, in place of asterisk. For example: 5010-1. To order the “use no water” and “radiation” symbols and “OXY”, “ACID”, “COR” and “ALK” simply order by the 5-digit catalog number.

All prices in U.S. dollars
Chapter 30 - OPEN FIRES, PROHIBITED; EXCEPTIONS

001 No person shall cause or allow any open fires.

002 Exceptions:

002.01 Fires set solely for recreational purposes or for outdoor cooking of food for human consumption on other than commercial premises and no nuisance or hazard is created.

002.02 Fires set for the purpose of training public and industrial fire fighting personnel.

002.03 Fires set in the operation of smokeless flare stacks for the combustion of waste gases, provided they meet the requirements of Chapter 20, Particulate Emissions; Limitations and Standards.

002.04 Fires set in an agricultural operation where no nuisance or traffic hazard is created. For the purpose of this regulation, "fires set in an agricultural operation" shall mean:

002.04a The burning of any trees or vegetation indigenous to the property of the owner or person in lawful possession of the land; and

002.04b The burning of any agriculturally related material that is potentially hazardous and where disposal by burning is recommended by the manufacturer. Such materials must have been used on the owner's property or person in legal possession of the said property.

002.05 Unless prohibited by local ordinances, fires set to destroy household refuse on residential premises containing ten or less dwelling units, by individuals residing on the premises and no nuisance or traffic hazard is created.

002.06 For the purpose of plant and wildlife and parks management, provided such burning is conducted by the Nebraska Game Commission, the United States Forest Service, or the University of Nebraska.

002.07 Unless prohibited by local ordinances or regulations, fires set with the written permission of the Director:

002.07a For the purpose of the destruction of dangerous materials, diseased vegetation or abatement of a fire hazard.

002.07b For the purpose of destruction of trees, brush and other vegetation removed from road and utility right-of-ways.

002.07c For the purpose of the destruction of trees, brush, vegetation and untreated lumber generated as a result of land clearing, and construction activities.

002.07d For the purpose of the destruction of straw used as a winter insulating cover on agricultural products.

002.07e For the purpose of destroying untreated wood and trees at community land disposal sites, in which case such burning must be distinctly separate from the disposal area for non-burnables.

002.07f For the purpose of destruction of materials after cleanup from a natural disaster.

002.08 Permits for open fires as specified in this regulation will be granted only if there is no other practical means of disposal. Any burning of materials not specified in the burning permit will result in immediate withdrawal of the permit.


Legal Citation: Title 129, Ch. 30, Nebraska Department of Environmental Quality
GUIDANCE DOCUMENT FOR LANDOWNERS AND FARM/RANCH OPERATORS

NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

The purpose of this document is to assist landowners and farm/ranch operators in managing their solid waste. The information is based on commonly asked questions. If you need further clarification please call the Integrated Waste Management Section of the Nebraska Department of Environmental Quality (NDEQ) at (402) 471-4210.

OPEN DUMPS

Dumping solid waste on private property is prohibited. To avoid future expensive clean up costs, NDEQ suggests surveying any existing dump for potentially dangerous waste (including but not limited to spent lead-acid batteries, paint cans, pesticide containers, oil storage containers, antifreeze containers, etc.), pull these materials out of the dump and dispose of them at a permitted landfill. After eliminating undesirable materials, NDEQ recommends that the open dump be covered with at least two feet of soil, sloping it so that water drains away from the site, and establish perennial grasses on the fill site.

BUILDING DEMOLITION WASTES

There are exceptions to the rules concerning dumping solid waste on private property. The allowed exceptions are:

1. The use of waste concrete, block, brick, concrete rubble or similar materials for purposes of erosion control, landscaping or other land improvements.

2. The use of tires or ferrous (iron) objects for bank or blowout stabilization. Land disposal of tires not used for the above beneficial purpose, is prohibited. Any placement of tires or other fill materials for streambank stabilization may require a permit from the Corps of Engineers. The Kearney Regional Office of the Corps of Engineers is (308) 234-1403. The Omaha Regional Office covers the Missouri River Basin and the phone number is (402) 896-0723.
3. The disposal or use of trees and brush or the ashes resulting from burning trees and brush. A ban on open burning exists, so prior to setting a fire to destroy trees and brush, a permit from the local fire department must be obtained. Ash resulting from the illegal burning of tires or other solid wastes with trees and brush must be picked up and disposed of at a permitted landfill.

4. The disposal of a farm building (barns, sheds) on the property where it originated, provided all hazardous materials are removed and the property is zoned for agriculture. Disposal of building demolition waste that did not originate on the farm/ranch property is prohibited.

**BURN BARRELS**

NDEQ does not regulate the use of burn barrels for household waste. Local city or county officials may regulate their use however and should be contacted concerning the use of burn barrels in your area. Ash resulting from burning household waste must be disposed of at a permitted landfill.

**JUNK AND SCRAP AGRICULTURAL EQUIPMENT**

"Junk" includes but is not limited to: old scrap, copper, brass, iron, steel, wire, glass, rope, rags, batteries, paper trash, rubber, debris, demolition waste, abandoned mobile homes, dismantled or wrecked, untaxed, unlicensed or unlicensed vehicles or parts thereof, and other old or scrap ferrous or nonferrous material. No property owner or person in lawful possession of property shall allow the accumulation of junk on property, that is not purely agricultural in character to the extent that such accumulation is a potential hazard to health.

**TIRES**

Land disposal of waste tires is prohibited. However, the use of waste tires for agricultural purposes is acceptable. Agricultural purposes include, bank or blowout stabilization, ballast to maintain cover or structures on agricultural sites (silage pit covers), livestock feeders and other uses approved by NDEQ. Storing greater than 100 tires for more than 18 months prior to using them for agricultural purposes would be considered a collection site, and therefore, would require a permit from NDEQ. For further details on permitting requirements for tire storage sites, call NDEQ at (402) 471-4210.
WASTE OIL, OIL FILTERS, BATTERIES, ANTIFREEZE,
AND PESTICIDE CONTAINERS

1. Land disposal of waste oil is prohibited. Waste oil should be recycled or reused. Local petroleum dealers should be able to put you in contact with recyclers or help you dispose of your waste oil. Never mix waste oil with other liquid or solid wastes.

2. Oil filters should be drained so that they contain no free liquids. This means oil filters should be crushed or punctured and drained, and/or dismantled and drained. Oil filters should be kept separate from other waste and disposed of at permitted landfills or recycled where possible.

3. Vehicle batteries should be recycled. Land filling or land disposal of vehicle batteries is prohibited. Local dealers often collect used batteries or should be able to put you in contact with recyclers.

4. Antifreeze should be recycled or reused. Never mix used antifreeze with used oil. Contact your local petroleum dealer for more information on disposal or recycling.

5. Pesticide containers are considered nonhazardous solid waste if they are triple rinsed or power washed. Many areas of the state are developing pesticide container collection sites for recycling. Please check with local recyclers or the extension service, or watch for information in newspapers or magazines for the location of these sites.

6. The Nebraska Recycling Directory which lists recycling centers and information resources in the state is available from the NDEQ. To request your copy or for more information on recycling call (402) 471-4210.

LIVESTOCK WASTE

Composting livestock wastes (bedding or manure) generated at your own livestock operation is exempt from regulation as long as the operation is in compliance with Title 130 - Rules and Regulations Pertaining to Livestock Waste Control. Land application of livestock waste generated by your own livestock operation is an allowable practice.
DEAD ANIMALS

The disposal methods for dead livestock have not changed recently. Bury dead animals at least 500 feet from a house, dwelling or barn and 4 feet below the surface of the ground or call a licensed rendering facility. For more information, contact the Nebraska Department of Agriculture at (402) 471-2351.

STATEWIDE LANDFILL BANS

The following items are banned from landfills or land disposal statewide beginning on the specified dates. Contact your landfill or hauler for details.

- **September 1, 1994**
  - Yard Wastes (April 1 to November 30)
  - Waste oil
  - Lead Acid Batteries (car batteries)

- **September 1, 1995**
  - Household appliances
  - Whole Waste Tires

- **September 1, 1996**
  - Unregulated hazardous waste (except household quantities)

- **September 1, 1998**
  - Waste tires in any form
**CLASS “A” FIRE:**

Class "A" fires are those involving only wood, paper, cloth, trash, etc. Suitable extinguishers use water or multi-purpose dry chemical as their control agents.

**CLASS "B" FIRE:**

Class "B" fires are those involving flammable or combustible liquids such as gasoline, solvents, ether, etc. Suitable extinguishers are those containing carbon dioxide (CO₂), Halon, ordinary dry chemical or multi-purpose dry chemicals.

**CLASS "C" FIRE:**

Class "C" fires are those fires of any nature which also involve "hot" electrical conductors. Such fires usually involve electrical wiring, motorized equipment, or electronic devices. Carbon dioxide (CO₂), Halon, ordinary or multi-purpose dry chemical extinguishers are suitable.

**CLASS "D" FIRE:**

Class "D" fires are those involving burning metals such as magnesium, titanium, zinc, sodium or potassium and certain water reactive chemicals. These fires must be smothered using special agents selected for the type of material burning.

**Fire Prevention:** Avoid working alone in a laboratory area; no smoking in the laboratory. Become acquainted with locations of nearest fire exit, fire extinguisher, alarm, telephone, safety shower, and fire blankets. Become familiar with the types of extinguishers and other procedures.
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NFPA 490

Code for the

Storage of Ammonium Nitrate

1993 Edition

This edition of NFPA 490, *Code for the Storage of Ammonium Nitrate*, was prepared by the Technical Committee on Hazardous Chemicals and acted on by the National Fire Protection Association, Inc. at its Fall Meeting held November 16-18, 1992, in Dallas, TX. It was issued by the Standards Council on January 15, 1993, with an effective date of February 12, 1993, and supersedes all previous editions.

The 1993 edition of this document has been approved by the American National Standards Institute.

Changes other than editorial are indicated by a vertical rule in the margin of the pages on which they appear. These lines are included as an aid to the user in identifying changes from the previous edition.

**Origin and Development of NFPA 490**

NFPA 490 was developed by the Technical Committee on Storage, Handling, and Transportation of Hazardous Chemicals and was tentatively adopted by the Association in 1963. It was further amended and again tentatively adopted in 1964. After further revision, it was officially adopted in 1965. Amendments to NFPA 490 were adopted in 1967, 1969, and 1970. A complete revision was adopted in 1975 and several minor amendments were adopted in 1980 and 1985.

The 1993 edition of NFPA 490 incorporates amendments to the document to enhance its enforceability by revising nonmandatory language provisions and conformance with the NFPA Manual of Style.
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authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization concerned with product evaluations which is in a position to determine compliance with appropriate standards for the current production of listed items.

**Authority Having Jurisdiction.** The "authority having jurisdiction" is the organization, office or individual responsible for "approving" equipment, an installation or a procedure.

**NOTE:** The phrase "authority having jurisdiction" is used in NFPA documents in a broad manner since jurisdictions and "approval" agencies vary as do their responsibilities. Where public safety is primary, the "authority having jurisdiction" may be a federal, state, local or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department, health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the "authority having jurisdiction." In many circumstances the property owner or his designated agent assumes the role of the "authority having jurisdiction"; at government installations, the commanding officer or departmental official may be the "authority having jurisdiction."

**Labeled.** Equipment or materials to which has been attached a label, symbol or other identifying mark of an organization acceptable to the "authority having jurisdiction" and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

**Listed.** Equipment or materials included in a list published by an organization acceptable to the "authority having jurisdiction" and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

**NOTE:** The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The "authority having jurisdiction" should utilize the system employed by the listing organization to identify a listed product.

**Shall.** Indicates a mandatory requirement.

**Should.** Indicates a recommendation or that which is advised but not required.

### Chapter 2 General Provisions

#### 2-1 Application. This code shall apply to all persons, firms, corporations, co-partnerships, and associations storing, having, or keeping ammonium nitrate and to the owner or lessee of any building, premises, or structure in which ammonium nitrate is stored in quantities of 1,000 lb (454 kg) or more.

#### 2-2 Restricted Locations.

**2-2.1** A permit shall be required from the authority having jurisdiction for the storage of 1,000 lb (454 kg) or more of ammonium nitrate.

**2-2.2** Not more than 60 tons (54.4 metric tons) of ammonium nitrate shall be stored unless the location and storage facility have been approved.

**2-2.3** Storage locations shall be subject to approval by the authority having jurisdiction with respect to nearness of residential occupancies, places of public assembly, schools, hospitals, railroads, and public highways. Limitations on storable quantities shall be considered with regard to proximity of these exposures and congested commercial or industrial districts.

**2-2.4** Approval of large quantity storage shall be subject to due consideration of the fire and explosion hazards, including exposure to toxic vapors from burning or decomposing ammonium nitrate.

#### 2-3 Structures.

**2-3.1** Storage buildings shall not have basements unless the basements are on at least one side. Storage buildings shall not be over one story in height, unless approved for such use.

**2-3.2** Storage buildings shall have adequate ventilation or be of a construction that will be self-ventilating in the event of fire.

**2-3.3** The wall on the exposed side of a storage building within 50 ft (15.2 m) of a combustible building, forest, piles of combustible materials, and similar exposure hazards shall be of Type I construction, as described in NFPA 220, Standard on Types of Building Construction. In lieu of the Type I wall, other equivalent means of exposure protection such as a free standing wall shall be permitted to be used. The roof coverings shall be Class C or better. (See NFPA 203, Guideline on Roof Coverings and Roof Deck Constructions.)

**2-3.4** All flooring in storage and handling areas shall be of noncombustible material or protected against impregnation by ammonium nitrate and shall be without open drains, traps, tunnels, pits, or pockets into which any molten ammonium nitrate could flow and be confined in the event of fire.

**2-3.5** The continued use of an existing storage building or structure not in strict conformity with this code shall be approved by the authority having jurisdiction in cases where such continued use will not constitute a hazard to life or adjoining property.

**2-3.6** Buildings and structures shall be dry and free from water seepage through the roof, walls, and floors.
5-1.3 Flammable liquids such as gasoline, kerosene, solvents, and light fuel oils shall not be stored on the premises except where such storage conforms to NFPA 30, Flammable and Combustible Liquids Code, and where walls and sills or curbs are provided in accordance with 5-1.1 or 5-1.2.

5-1.4 LP-Gas shall not be stored on the premises except where such storage conforms to NFPA 58, Standard for the Storage and Handling of Liquefied Petroleum Gases.

5-2 Prohibited Articles.

5-2.1 Sulfur and finely divided metals shall not be stored in the same building with ammonium nitrate except where such storage conforms to NFPA 495, Explosive Materials Code.

5-2.2 Explosives and blasting agents shall not be stored in the same building with ammonium nitrate except on the premises of makers, distributors, and user-compounders of explosives or blasting agents.

5-2.2.1 Where explosives or blasting agents are stored in separate buildings, other than on the premises of makers, distributors, and user-compounders of explosives or blasting agents, they shall be separated from the ammonium nitrate by the distances or barricades specified in the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents, found in NFPA 495, Explosive Materials Code.

5-2.2.2 Storage or operations on the premises of makers, distributors, and user-compounders of explosives or blasting agents shall be in conformity with NFPA 495, Explosive Materials Code.

6-4 Signs. All points of entry to commercial warehouses in which ammonium nitrate is stored shall be properly identified with durable signs meeting the following specifications:

(a) Signs shall have background and letters in contrasting colors.

(b) Signs shall be worded “AMMONIUM NITRATE,” with letters at least 2 in. (5 cm) high.

6-5 Vehicles and Lift Trucks.

6-5.1 Internal combustion motor vehicles, lift trucks, and cargo conveyors shall not be permitted to remain unattended in a building where ammonium nitrate is stored unless parked in an area that will prevent the spreading of a fire in the event of a vehicle fire.

6-5.2* Fork trucks, tractors, platform lift trucks, and other specialized industrial trucks used within the warehouse shall be maintained so that fuels or hydraulic fluids do not contaminate the ammonium nitrate.

6-6* Handling Equipment. Hollow spaces shall be avoided in nitrate handling equipment where nitrate could collect and be confined under sufficiently high pressure to become a source of explosion in the event of fire.

6-7 Lightning. In areas where lightning storms are prevalent, lightning protection shall be provided. (See NFPA 780, Lightning Protection Code.)

6-8 Control of Access. Provisions shall be made to prevent unauthorized personnel from entering the ammonium nitrate storage area.

Chapter 7 Fire Protection

7-1 Automatic Sprinklers.

7-1.1 Unless the storage of a greater quantity is approved by the authority having jurisdiction, not more than 2,500 tons (2,268 metric tons) of bagged ammonium nitrate shall be stored in a building or structure not equipped with an automatic sprinkler system.

7-1.2 When determining whether greater quantities shall be permitted without sprinkler protection, the authority having jurisdiction shall take into consideration exposure of the storage building to built-up areas and possible presence of contaminants in the storage building.

7-1.3 Sprinkler protection shall be permitted to be required for the storage of less than 2,500 tons (2,268 metric tons) of ammonium nitrate where location of the building or the presence of other stored materials can present a special hazard.

7-1.4 Sprinkler systems shall be of approved type and installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

7-2 Extinguishing Devices.

7-2.1 Suitable fire control devices such as small hose or portable extinguishers shall be provided throughout the warehouse and in the loading and unloading areas. (See NFPA 10, Standard for Portable Fire Extinguishers, and NFPA 14, Standard for the Installation of Standpipe and Hose Systems.)
C-1 Title. This ordinance shall be known as “an ordinance regulating the storage, having, and keeping of ammonium nitrate in the City of __________________,” and shall be permitted to be referred to as “The Ammonium Nitrate Storage Ordinance.”

NOTE: The title should conform with local law and practice.

C-2 Definitions.

C-2.1 Chief. The Chief of the Fire Department or his or her authorized representative is hereby designated as “the authority having jurisdiction” wherever that expression appears in the ordinance.

C-2.2 Jurisdiction. “Jurisdiction” wherever used in this ordinance shall mean the City of ____________________.

C-2.3 Permit. The term “ Permit,” wherever used in this ordinance, shall mean the written authority of the ____________________ issued pursuant to this ordinance to store, have, or keep pure, fertilizer, or other grades of ammonium nitrate and mixtures containing 60 percent or more by weight of ammonium nitrate and that are classified as oxidizing materials (usually by the Department of Transportation) by the authority having jurisdiction.

C-3 Application. This ordinance shall apply to all persons, firms, corporations, co-partnerships, governmental agencies except federal, and associations storing, having, or keeping ammonium nitrate and to the owner or lessee of any building or premises in or on which ammonium nitrate is stored or kept.

C-4 Permitted Locations.

C-4.1 The storage of ammonium nitrate in quantities of 1,000 lb (454 kg) or more is prohibited within the following limits:

NOTE: These limits are to be specified according to local zoning ordinances. They should include all residential, mercantile, and other congested districts.

C-4.2 No permit shall be issued until approval has been given for the proposed storage location with respect to nearness to places of public assembly, schools, hospitals and churches, and adequacy of water supply for fire control.

C-5 Retroactivity. The chief may issue a permit for the continued use of an existing warehouse, storage facility, handling equipment, building, and structure for the storage of ammonium nitrate that is not in strict compliance with the terms of this ordinance in cases in which continued use will not constitute a distinct hazard to life or adjoining property. In cases where such permit is denied, the chief shall notify the applicant and specify the reasons for denial in writing.

C-6 Permits.

C-6.1 A permit issued pursuant to this ordinance shall be obtained from the chief to store, have, or keep, in quantities of 1,000 lb (454 kg) or more, pure, fertilizer, and other grades of ammonium nitrate, and mixtures containing 60 percent or more by weight of ammonium nitrate and that are classified as oxidizing materials (usually by the Department of Transportation) by the authority having jurisdiction.

C-6.2 Permits shall not be transferable.

C-6.3 Each permit granted by the chief shall be valid for such period as may be specified but not to exceed one year, shall be a revocable license, and shall expire when revoked.

C-7 Inspection and Approval.

C-7.1 Application for a permit to use or operate facilities for the storage, having, or keeping of ammonium nitrate as herein required shall be made in writing to the chief. The chief shall then cause to be made an inspection of the premises and equipment proposed to be used. If they are found to be in compliance with this ordinance, a statement to that effect shall be noted on the application and the application signed by the person making the inspection. The chief shall thereupon issue a permit as applied for.

C-7.2 The chief may at any reasonable time inspect premises, buildings, installations, or equipment for the storage and handling of ammonium nitrate. If a violation of this ordinance is found to exist, the chief shall file with the owner, occupant, or operator a notice citing the violation and ordering its correction. If such order is not complied with, the chief may suspend the permit issued for such facility.

C-7.3 In the event that an inspection reveals a violation of this ordinance serious enough in the chief’s opinion to constitute a clear and present danger to the public safety, the chief shall take whatever measures are necessary to correct, abate, or remove the hazard or condition.

C-8 Modification. The chief shall have the power to grant exemption from application of the ordinance upon request in writing to do so when such request shows that the enforcement of the ordinance will cause unnecessary hardship to the petitioner, provided that said request shall not be granted where the requested use will constitute a distinct hazard to life or adjoining property. The particulars of such exemptions when granted shall be entered upon the permit issued. A copy thereof shall be retained by the chief.

C-9 Appeals.

C-9.1 An owner, lessee, agent, operator, or occupant aggrieved by any order issued pursuant to this ordinance may file an appeal to the City Council within ten days from the service of such an order, and the City Council shall fix a time and place not less than five days nor more than ten days thereafter when and where such appeal may be heard by it. Such appeal shall stay the execution of such order until it has been heard and reviewed, vacated, or confirmed. Nothing in this section shall be construed as preventing the chief from taking any action indicated by Section B-7-3 of this ordinance.

NOTE: This section should conform to local law and practice with respect to terminology and designation of agency to hear appeals.

C-9.2 The City Council shall at such hearing affirm, modify, revoke, or vacate such order. Unless revoked or vacated, such order shall then be complied with.
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