CHAPTER 91

PUBLIC WATER SUPPLY WELLHEAD PROTECTION

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91.01 DEFINITIONS.

1. "Aquifer" means a rock formation, group of rock formations or part of a rock formation that contains enough saturated permeable material to yield significant quantities of water.

2. "Alluvium" means sand, clay, etc., gradually deposited by moving water.

3. "Contamination" means the presence of any harmful or deleterious substances in the water supply.

4. "Groundwater" means subsurface water in the saturated zone from which wells, springs and groundwater runoff are supplied.

5. "Hazardous substances" means those materials specified in Section 91.02 of this chapter.

6. "Labeled quantities" means the maximum quantity of chemical as recommended on the label, for specific applications.

7. "Permitted pumping capacity" means the amount of water authorized to be pumped from a well during a one-year period.

8. "Person" means any natural person, individual, public or private corporation, firm, association, joint venture, partnership, municipality, governmental agency, political subdivision, public officer, or any other entity whatsoever or any combination of such, jointly or severally.

9. "Petroleum product" means fuels (gasoline, diesel fuel, kerosene and mixtures of those products), lubricating oils, motor oils, hydraulic fluids and other similar products.

10. "Pollution" means the presence of any substance (organic, inorganic, radiological or biological) or condition (temperature, pH turbidity) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

11. "Potable water" means water that is satisfactory for drinking, culinary and domestic purposes, meeting current drinking water standards.

12. "Primary containment" means the first level of product-tight containment, i.e., the inside portion of that container which comes into immediate contact on its inner surface with the hazardous material being contained.

13. "Public utility" means any utility (gas, water, sewer, electrical, telephone, cable television, etc.) whether publicly owned or privately owned.

14. Secondary containment" means the level of product-tight containment external to and separate from the primary containment. Secondary containment consists of leakproof trays under containers, floor curbing or other containment systems and shall be of adequate size and design to handle all spills, leaks, overflows and precipitation until appropriate action can be taken. The specific design and selection of materials shall be sufficient to preclude any substance loss. Containment systems shall be sheltered so that the intrusion of precipitation is effectively prevented.

15. "Shallow well" means a well located and constructed in such a manner that there is not a continuous five-foot layer of low permeability soil or rock between the aquifer from which the water supply is drawn and a point 25 feet below the normal ground surface.

16. "Toxic substance" means any substance that has the capacity to produce personal injury or illness to humans through ingestion, inhalation or absorption into the body.

17. "Water pollution" means the introduction in any surface or underground water of any organic or inorganic deleterious substance in such quantities, proportions and accumulations that are injurious to human, plant, animal, fish and other aquatic life or property or that unreasonably interfere with the comfortable enjoyment of life or property or the conduct of business.

18. "Well" means a pit or hole sunk into the earth to reach a resource supply such as water.

19. "Well field" means a tract of land that contains a number of wells for supplying water.

20. "Wellhead protection zones" means zones delineated by fixed boundaries around wellheads, within which toxic substances will be regulated to protect the quality of the underground resource.

91.02 SUBSTANCES REGULATED. The materials regulated by this chapter are the substances listed by the Iowa Labor Commissioner pursuant to Chapter 89B of the *Code of Iowa* (*Hazardous Chemicals Risks - Right to Know*).

91.03 MAPS OF ZONES OF INFLUENCE.

1. Maps. Zones of protection maps and any amendments thereto are incorporated by reference and made a part of this chapter. These maps are on file at City Hall. The location of all wells in the City supplying potable water to the City Water System are shown on the official Wellhead Protection Map with Primary Zone, Secondary Zone and Zone of Sensitivity indicated.

2. Map Maintenance. The zones of protection maps may be updated on an annual basis. The reasons for such an update may include, but are not limited to, the following:

A. Changes in the technical knowledge concerning the aquifer;

B. Changes in permitted pumping capacity of City wells;

C. Additions of wells;

D. Designation of new well fields.

3. Wellhead Protection Zones. The zones of protection indicated on the zones of protection maps are as follows:

A. Primary Protection Zone — an area extending 200 feet radially from any well supplying potable water to the City Water System.

B. Secondary Protection Zone — an area extending to the boundaries identified on the official zones of protection map surrounding any well supplying potable water to the City Water System.

C. Zone of Sensitivity — an area extending to the boundaries identified on the official zones of protection map surrounding any well supplying potable water to the City Water System.

91.04 RESTRICTIONS WITHIN THE PRIMARY PROTECTION ZONE.

1. Permitted Uses. The following uses are permitted uses within the Primary Protection Zone. Uses not listed are to be considered prohibited.

A. Parks, provided there is no on-site waste disposal or fuel storage tank facilities associated with this use, and the Iowa Department of Natural Resources *Separation Distances from Wells* for sources of contamination is complied with.

B. Playgrounds.

C. Wildlife areas; open spaces.

D. Lawns and gardens.

E. Highways, streets, roadways and walkways.

2. Additional Restrictions. No person shall discharge or cause or permit the discharge of a hazardous substance (including herbicide and pesticide application) to the soils, groundwater or surface water within the Primary Protection Zone. Any person knowing or having evidence of a discharge shall report such information to the Well Field Protection Officer.

91.05 RESTRICTIONS WITHIN THE SECONDARY PROTECTION ZONE.

1. Permitted Uses. The following uses are permitted in the Secondary Protection Zone. Uses not listed are to be considered prohibited.

A. All uses listed as permitted in the Primary Protection Zone.

B. Livestock grazing and field cropping activities.

2. Additional Restrictions. No person shall discharge or cause or permit the discharge of a hazardous substance, in excess of labeled quantities, to the soils, groundwater or surface water within the Secondary Protection Zone. Any person knowing or having evidence of a discharge shall report such information to the Well Field Protection Officer.

91.06 RESTRICTIONS WITHIN THE ZONE OF SENSITIVITY.

1. Permitted Uses. The following uses are permitted in the Zone of Sensitivity. Uses not listed are to be considered prohibited.

A. All uses listed as permitted in the Primary Protection Zone.

B. All uses listed as permitted in the Secondary Protection Zone.

C. All uses, handling and storage, when in compliance with and allowed by Federal, State and local laws and regulations.

2. Additional Restrictions. No person shall discharge or cause or permit the discharge of a hazardous substance, in excess of labeled quantities, to the soils, groundwater or surface water within the Zone of Sensitivity. Any person knowing or having evidence of a discharge shall report such information to the Well Field Protection Officer.

91.07 EXCEPTIONS. The following activities or uses are exempt from the provisions of this chapter:

1. The transportation of any hazardous substance through the well field protection zones, provided the transporting vehicle is in transit.

2. The use of any hazardous substance solely as fuel in a vehicle fuel tank or as lubricant in a vehicle.

3. Fire, police, emergency medical services, emergency management facilities or public utility transmission facilities.

4. The storage and use of hazardous substances as a fuel or lubricant to provide auxiliary power for emergency use to the well field, provided an enclosed secondary containment system is provided for the hazardous substance.

5. The use of water treatment chemicals connected with the operation of the well.

91.08 DETERMINATION OF LOCATIONS WITHIN ZONES. In determining the location of properties within the zones depicted on the zones of protection maps, the following rules shall apply:

1. Properties located wholly within one zone reflected on the applicable zone of protection map shall be governed by the restrictions applicable to that zone.

2. For properties having parts lying within more than one zone as reflected on the applicable zones of protection map, each part shall be governed by the restrictions applicable to the zone in which it is located.

91.09 ENFORCEMENT AND PENALTIES.

1. The Water Superintendent is designated as the Well Field Protection Officer unless another person is specifically designated by the Council to supervise the implementation and enforcement of this chapter.

2. No building permit shall be issued which is a violation of the Iowa Department of Natural Resources *Separation Distance from Wells*, a violation of this chapter or a source of contamination for a City well.

3. No new underground tanks will be allowed for auxiliary fuel storage in the Primary or Secondary Zones.

4. Any person who fails to comply with the provisions of this chapter shall be subject to provisions and penalties provided for a violation of this Code of Ordinances.

91.10 INSPECTIONS.

1. The Well Field Protection Officer or inspector shall have the power and authority to enter and inspect all buildings, structures and land within all wellhead protection zones for the purpose of making an inspection. Failure of a person having common authority over a property to permit an inspection shall be sufficient grounds and probable cause for a court of competent jurisdiction to issue a search warrant to the Protection Officer to inspect such premises.

2. The Well Field Protection Officer or inspector may inspect each City well annually and shall maintain an inventory, if applicable, of all hazardous substances which exist within the Primary Zone. One format that may be used is Iowa DNR form, OMB No. 2050-0072.

91.11 INJUNCTIVE RELIEF. If any person who engages in nonresidential activities stores, handles, uses and/or produces toxic substances within the wellhead protection zones, as indicated on the zones of protection maps, continues to operate in violation of the provisions of this chapter, then the City may file an action for injunctive relief in the court of jurisdiction.

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