

Kalamazoo County Sanitary Code

KALAMAZOO COUNTY SANITARY CODE

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ARTICLE I: PURPOSE, GENERAL PROVISIONS & DEFINITIONS

CHAPTER 1: PURPOSE

The Kalamazoo County Sanitary Code, herein referred to as the Code, is a codification of the existing rules, regulations and policies, which govern the conditions that affect the environmental health of Kalamazoo County residents and protect the health, safety and welfare of the public.

CHAPTER 2: GENERAL PROVISIONS

SECTION 2.01: AUTHORITY

The Kalamazoo County Board of Commissioners hereby adopts the revised Onsite Sewage Treatment and revised Clean Up of Methamphetamine Laboratories Regulations contained in this Code pursuant to the provisions of Part 127 and Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12701-333.12771 and Sections 333.2441-333.2442 of the Michigan Compiled Laws; and the “Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970”, Act 127 of the Public Acts of 1970, as amended, being Sections 324.11701-324.11719 of the Michigan Compiled Laws.

The Kalamazoo County Board of Commissioners hereby adopts the Sewage Disposal, Water Supply and Housing Regulations, contained in this Code pursuant to the provisions of Part 127 and Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12701-333.12771 and Sections 333.2441-333.2442 of the Michigan Compiled Laws; and the “Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970”, Act 127 of the Public Acts of 1970, as amended, being Sections 324.11701-324.11719 of the Michigan Compiled Laws.

The Kalamazoo County Board of Commissioners hereby adopts the Food Protection Enforcement Policy contained in this Code pursuant to the provisions of the Michigan Food Law of 2000, Act 92 of the Public Acts of 2000.

The Kalamazoo County Board of Commissioners hereby adopts the Noncommunity Water Supply Regulations contained in this Code pursuant to the provisions of Act 399 of the Public Acts of 1976, as amended, being Sections 325.1001-325.1023 of the Michigan Compiled Laws; and pursuant to the provisions of the Administrative Procedures Act, Act 306 of the Public Acts of 1969, as amended, being Sections 24.201-24.313 of the Michigan Compiled Laws.

The Kalamazoo County Board of Commissioners hereby adopts the Public Swimming Pool Water Quality Testing Regulations contained in this Code pursuant to the provisions in Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.2441-333.2442 of the Michigan Compiled Laws; and Part 125 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12501-333.12563 of the Michigan Compiled Laws.

SECTION 2.02: JURISDICTION

The Department shall administer and enforce this Code throughout all of Kalamazoo County except for those areas within the territorial boundaries of a governmental unit that has lawfully adopted and enforces regulations equal to or more stringent than those contained in this Code.

SECTION 2.03: RIGHT OF ENTRY AND INSPECTION

The Department may inspect or investigate any dwelling, property, issue, thing, premise, person, record, vehicle, incident or event, in order to administer and enforce this Code.

No person shall refuse to allow the Department, or the Department's designated representative, after proper identification, to inspect any premise at reasonable hours of the day, nor shall any person unlawfully hinder, oppose or resist the Department, or the Department's authorized representative, in the discharge of the Department's duty and the protection of the public health. Sections 2241-2247 of Act 368 of the Public Acts of 1978, as amended, being sections 333.2441-333.2447 of the Michigan Compiled laws, apply to an inspection or investigation made by the Department or his/her authorized representative.

SECTION 2.04: INTERFERENCE WITH NOTICES

No person shall remove, mutilate or conceal any notice or placard posted by the Department except by written permission of the Department.

SECTION 2.05: ABATEMENT OF PUBLIC HEALTH NUISANCES

Nothing stated in this Code shall limit the power of the Department's legal authority to order the immediate and complete abatement of a public health nuisance that is harmful to the environment or menace to the public's health, safety or welfare.

SECTION 2.06: FEE SCHEDULE

The Kalamazoo County Board of Commissioners shall establish the fees charged for services and registration/permit applications identified in this Code by adopting a written Fee Schedule at a regular or special meeting of the Board of Commissioners. The Kalamazoo County Board of Commissioners may revise the Fee Schedule by adopting a written amendment to the Fee Schedule at a special or regular meeting of the Board of Commissioners.

SECTION 2.07: VALIDITY AND SEVERABILITY

The County of Kalamazoo declares that the requirements and the various parts, sections, and clauses of this Code are valid. If a court of competent jurisdiction determines that any part, sentence, paragraph, section or clause is unconstitutional or invalid, the remaining parts, portions and provisions of this Code shall remain in full force and effect.

SECTION 2.08: OTHER LAWS AND REGULATIONS

This Code supplements the rules and regulations duly enacted by the Michigan Department of Agriculture, Michigan Department of Environmental Quality and the Michigan Department of Community Health; the laws of the State of Michigan relating to public health; and federal laws relating to public health. This Code supersedes inconsistent or conflicting local regulations or ordinances.

SECTION 2.09: EFFECTIVE DATE

This Code shall take effect 45 days after the Kalamazoo County Board of Commissioners adopts the Code at a regular or special meeting of the Board of Commissioners unless the Board of Commissioners specifically provides for the Code to take effect on a date more than 45 days after the Board of Commissioners adopts the Code.

SECTION 2.10: REPEAL OF OTHER REGULATIONS

Subject to the provisions of Section 2.11 of this Code, all other Codes, Ordinances and Regulations and parts of Codes, Ordinances and Regulations, which conflict with the provisions of this Code are repealed.

SECTION 2.11: PRE-EXISTING VIOLATIONS

Any act, situation or condition of premises or things which, when created or first allowed to exist, violated any provision of the existing Kalamazoo County Sanitary Code, shall continue to be a violation of this Code if a similar section or provision is a part of this Code. Any action, issuance of permit, or maintenance of a condition that was mandatory, under the provisions of the Chapters now repealed, shall continue to be required if the same or similar provision is contained in this Code.

SECTION 2.12: INJUNCTIVE PROCEEDING

Notwithstanding the existence or pursuit of any other remedy, the Department, without posting bond, may maintain an action in a court of competent jurisdiction for the entry of an injunction or other process against any person to restrain, prevent, or correct violations of this regulation.

CHAPTER 3: DEFINITIONS

SECTION 3.01: ALTERNATIVE ONSITE TREATMENT SYSTEM

“Alternative Onsite Treatment System” means any onsite sewage treatment system other than the following: a holding tank, septic tank with soil absorption tile trenches or drainbeds, stoneless chamber or tubing, non-engineered mound system, dry wells or other system as approved by the Department.

SECTION 3.02: ALTERNATOR VALVE

“Alternator Valve” means a watertight device that switches effluent flow from one soil absorption system to another, separate, soil absorption system and allows alternate periods of loading and resting.

SECTION 3.03: APPEAL

“Appeal” means a request for a hearing to review facts and/or actions in connection with the public enforcement of this Code.

SECTION 3.04: APPROVED

“Approved” means the Department, based on duly promulgated public health rules, regulations and technical data, has determined that a mechanical device, system or piece of equipment is acceptable for its intended use at the time of inspection.

SECTION 3.05: AUTOMATIC SIPHON

“Automatic Siphon” means a mechanical device which will automatically cause the retention of a liquid entering a receptacle until the liquid reaches a predetermined high water level, after which, the receptacle automatically releases the liquid until the liquid reaches a second predetermined level, at which time the liquid’s flow from the receptacle ceases until the liquid again reaches the predetermined high water level.

SECTION 3.06: AVAILABLE PUBLIC SANITARY SEWER SYSTEM

“Available Public Sanitary Sewer System” means a public, or municipal sanitary sewer system located in a right-of-way, easement, highway, street or public way which crosses, adjoins or abuts upon a property and which is located within 200 feet, at the nearest point of a dwelling in which sanitary sewage originates.

SECTION 3.07: BASEMENT

“Basement” means the portion of a building that is located partly underground and at least half of its clear floor-to-ceiling height is below the average grade of the adjoining ground surface.

SECTION 3.08: BEDROOM

“Bedroom” means a room designed primarily for sleeping or a room expected to routinely provide sleeping accommodations for occupants. A bedroom may or may not contain a closet.

SECTION 3.09: BLACKWATER

“Blackwater” means all solids and liquids emanating from a toilet, urinal, or bidet.

SECTION 3.10: CELLAR

“Cellar” means the portion of a building that is located partly or wholly underground and more than half of its clear floor-to-ceiling height is below the average grade of the adjoining ground.

SECTION 3.11: CONTINUING EDUCATION

“Continuing Education” means a form of ongoing learning and/or informational exchanges to promote professional development on a specific topic as approved by the Department.

SECTION 3.12: CONTINUING EDUCATION UNIT (CEU)

“Continuing Education Unit (CEU)” means a measurement of 1 CEU is equivalent to 1 hour of education unless otherwise approved by the Department.

SECTION 3.13: CHRONIC OR REPEATED VIOLATION

“Chronic” or “Repeated Violation” as used in Article VI of this Code, means the reoccurrence of a specific violation that the Department observed and documented during a routine inspection, and which the owner of the premises had corrected before the violation’s reoccurrence.

SECTION 3.14: CONTINUOUS VIOLATION

“Continuous Violation” as used in Article VI of this Code, means a specific violation that the Department observed and documented and which the owner of the premise has not corrected within an allowed or agreed upon time period.

SECTION 3.15: CRITICAL ITEM VIOLATION

“Critical Item Violation” means a violation of the food code which the Michigan Department of Agriculture has determined is more likely than other violations to contribute to food contamination, illness to humans, or environmental health hazard, as per Section 1105 (g) of Act 92 of the Public Acts of 2000, Michigan’s Food Law of 2000.

SECTION 3.16: CUT AND FILL OR FILL SOIL ABSORPTION SYSTEM

“Cut and Fill” or “Fill Soil Absorption System” means a type of soil absorption system where soils or materials may be removed to a specific depth and replaced with approved fill material prior to installing the soil absorption system.

SECTION 3.17: DAYLIGHT WINDOW

“Daylight Window” means a window that is installed at grade outside and above the basement floor level of the residence inside.

SECTION 3.18: DEPARTMENT OR HEALTH OFFICER

“Department” or “Health Officer” means the director or acting director of the Kalamazoo County Health and Community Services Department and his or her authorized representative.

SECTION 3.19: DETENTION BASIN

“Detention Basin” means a reservoir, which temporarily contains storm water runoff and releases it gradually into a watercourse or storm water facility.

SECTION 3.20: DEVIATION

“Deviation” means written or verbal approval to alter from the onsite sewage treatment system permitting criteria contained in Article II of this code.

SECTION 3.21: DOSING TANK OR PUMP CHAMBER

“Dosing Tank” or “Pump Chamber” means a watertight manufactured container which retains the overflow to or effluent from a septic tank until discharged to a selected point by a pump or automatic siphon.

SECTION 3.22: DRAINFIELD

“Drainfield” or “Drainbed” or “Tile Field” or “Tile Bed” means a soil absorption system consisting of a distribution system of perforated sewer pipe that lies over a minimum of a 6 inch layer of stone into which sewage effluent flows.

SECTION 3.23: DRY WELL OR BLOCK TRENCH

“Dry Well” or “Block Trench” means an underground enclosure connected to the outlet of a septic tank and constructed of concrete blocks, bricks, pre-cast material or similar material, loosely laid with open joints and surrounded with stone to allow the surrounding soil to directly absorb the septic tank effluent.

SECTION 3.24: DWELLING OR DWELLING UNIT

“Dwelling” or “Dwelling Unit” means any house, building, structure, tent, watercraft, shelter, trailer, vehicle or portion thereof used, in whole or in part, as a home, residence, or living and sleeping place for 1 or more human beings.

SECTION 3.25: EFFLUENT

“Effluent” means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, soil absorption system, or other treatment system or system component.

SECTION 3.26: EFFLUENT FILTER

“Effluent Filter” means a device designed for installation at the outlet pipe of a septic tank or dosing chamber that serves to filter out solids and limit the amount of suspended solids that may otherwise reach the soil absorption system.

SECTION 3.27: EXTERMINATION

“Extermination” means the control and elimination of insects, rodents, or other pests by eliminating their harborage places; by removing, or making inaccessible, materials that may serve as their food; by poisoning, spraying, fumigating or trapping; or by any other recognized and legal elimination method approved by the Department.

SECTION 3.28: FAILURE

“Failure” means a condition existing within an onsite sewage treatment system which prohibits the system from functioning in a sanitary manner which may include, but is not limited to, the discharge of effluent onto the ground surface, into surface water, into groundwater or backing up into the dwelling or premise.

SECTION 3.29: FILL SAND

“Fill Sand” means the type of material to be used when creating a mounded or cut and fill or fill soil absorption system. Fill sand shall meet 2NS requirements or be otherwise approved by the Department.

SECTION 3.30: FILTER FABRIC

“Filter Fabric” means textile of relatively small mesh or pore size material used to allow water to pass through while keeping sediment out.

SECTION 3.31: GARBAGE

“Garbage” means all animal, fruit, or vegetable waste matter connected with the preparation, use, cooking, or storing of food. Garbage also means any can, container or wrapper waste connected with the preparation, use, cooking, or storing of food. Garbage also means any kitchen and table wastes of every kind, except dishwasher or waste water; and all other refuse or waste matter of any nature or kind, mixed, handled or included therewith.

SECTION 3.32: GARBAGE CONTAINER

“Garbage Container” means a reasonably weather tight and watertight container used to temporarily store garbage and which prevents access by vermin including insects, birds, dogs and cats.

SECTION 3.33: GRAY WATER

“Gray Water” means all domestic water except blackwater. Gray water includes, but is not limited to, waste water from laundry, bathing, cooking, cleaning, sink waste and dish washing activities.

SECTION 3.34: HABITABLE BUILDING

“Habitable Building” means any building, or other dwelling, suitable for human residency, occupation or use.

SECTION 3.35: HABITABLE ROOM

“Habitable Room” means a room or enclosed floor space suitable for human living, sleeping, cooking, or eating purposes. A habitable room does not include bathrooms, water closet compartments, laundries, pantries, foyers, or communicating corridors, closets and storage spaces.

SECTION 3.36: HEALTH DEPARTMENT

“Health Department” means the Kalamazoo County Health and Community Services Department.

SECTION 3.37: HEALTH AND COMMUNITY SERVICES DEPARTMENT

“Health and Community Services Department” means the Kalamazoo County Health and Community Services Department also formerly known as the Kalamazoo County Human Services Department.

SECTION 3.38: HIGH GROUNDWATER

“High Groundwater” means the elevation that water is found at, in the soil material when performing a site evaluation. High groundwater may be determined by the presence of redoximorphic features, otherwise known as mottling.

SECTION 3.39: HOLDING TANK

“Holding Tank” means a watertight manufactured container without a discharge outlet; equipped with an alarm device; and used solely for temporarily holding waste water.

SECTION 3.40a: IMMINENT HAZARD OR SUBSTANTIAL HAZARD

“Imminent Hazard” or “Substantial Hazard” as used in Article VI of this Code, means a condition that constitutes an immediate threat to public health including, but not limited to, a food establishment’s loss of power; a food establishment’s loss of its water supply; the backup of sewage wastes into the building; severe structural damage to the food service establishment building; an ongoing food borne illness caused by the conditions in the food establishment; a severe vermin infestation that threatens the integrity of the establishment’s food supply; or any other condition which, in the Department’s opinion, constitutes an immediate threat to the public’s health. See also, Michigan Administrative Code Rule 325.101(1)(f).

SECTION 3.40b: IMMINENT DANGER

“Imminent Danger” as used in Article V of this Code, means a condition or practice which could reasonably be expected to cause death, disease, or serious physical harm to a person immediately or before the danger can be eliminated through enforcement procedures otherwise provided.

SECTION 3.41: INFESTATION

“Infestation” means the presence, within or around a dwelling, of any insects, rodents or other pests.

SECTION 3.42: MOTTLING

“Mottling” means a condition found in soil profiles that consist of irregular spots of varying color number and/or size. Mottling indicates water is seasonally present or has been historically present at the elevation where the features are found. Mottling can also be an indication of poor aeration and impeded drainage.

SECTION 3.43: MOUND SYSTEM

“Mound System” means a soil absorption system, generally a drainfield, constructed at a prescribed location and elevation above the surrounding ground surface in a prepared area of acceptable fill material. When designing a soil absorption system of this type, the side slope area is included as part of the onsite sewage treatment system.

SECTION 3.44: MULTIPLE DWELLING

“Multiple Dwelling” means any building or structure, which contains 2 or more dwelling units.

SECTION 3.45: NUISANCE

“Nuisance” means any annoying, obnoxious or unpleasant condition, which results from a violation of any provision of this Code.

SECTION 3.46: ONSITE SEWAGE TREATMENT SYSTEM OR SEWAGE DISPOSAL SYSTEM

“Onsite Sewage Treatment System” or “Sewage Disposal System” means the methods and devices including septic tanks, holding tanks, pump chambers, piping, pumps, vents, distribution systems and soil absorption systems used to treat and/or dispose of sewage emanating from a dwelling or premise.

SECTION 3.47: OPERATION AND MAINTENANCE

“Operation and Maintenance” means a process to insure an onsite sewage treatment system is maintained and functional in the manner it was intended so that it remains protective of the environment and human health, safety and welfare.

SECTION 3.48: OPERATOR

“Operator” means any person who owns or has charge, care or control of a building, or part thereof, in which dwelling units are rented.

“Operator” as used in Article IIIa of this code means any person who owns or has charge, care or control of a public swimming pool.

SECTION 3.49: OWNER AND OCCUPANT

“Owner” means the owner of title or record of any property, premise or business. “Occupant” means any person(s) occupying or in possession of any property or premise.

“Owner” as used in Article IIIa of this Code, means the owner of title or record of any property, premises or business that contains a public swimming pool. “Occupant” means any person(s) occupying or in possession of any property or premise that contains a public swimming pool.

SECTION 3.50: PERCOLATION RATE

“Percolation Rate” means the rate, usually expressed in inches per hour, at which water moves downward through a soil material.

SECTION 3.51: PERMEABILITY

“Permeability” means the characteristic that enables soil to transmit water or air, measured as the number of inches per hour that water moves through the soil. Terms describing permeability are very slow, slow, moderately slow, moderate, moderately rapid, rapid and very rapid.

SECTION 3.52: PERSON

“Person” means an individual, firm, partnership, cooperative, party, public or private corporation, personal representative, society, association, receiver, trustee, assignee, or other legal entity.

SECTION 3.53: PLUMBING

“Plumbing” means the pipes, fixtures or other apparatus in a dwelling which transport water, gas or sewage.

SECTION 3.54: PREMISE

“Premise” means any tract or parcel of land where persons may reside, are employed or congregate and includes any other dwellings, structures, buildings or accessory structures located on the tract or parcel.

SECTION 3.55: PRIVY OR OUTHOUSE

“Privy” or “Outhouse” means a building or other dwelling not connected to a public sewer system or a properly installed and operating onsite sewage treatment system, and is used for the temporary or permanent reception, disposition, or storage of human excrement. A self-contained portable, temporary restroom facility is not a privy or an outhouse.

SECTION 3.56: PUBLIC SWIMMING POOL

“Public Swimming Pool” means an artificial body of water used collectively by a number of individuals primarily for the purpose of swimming, wading, recreation, or instruction and includes equipment, dressing, locker, shower and toilet rooms. Public swimming pools include those which are for parks, schools, motels, camps, resorts, apartments, clubs, hotels, mobile home parks,

subdivisions, and the like. A pool or portable pool located on the same premises with a 1-, 2-, 3- or 4-family dwelling and for the benefit of the occupants and their guests, a natural bathing area such as a stream, lake, river, or man-made lake, an exhibitor's swimming pool built as a model at the site of the seller and in which swimming by the public is not permitted, or a pool serving not more than 4 motel units is not a public swimming pool.

SECTION 3.57: PUMP AND HAUL

“Pump and Haul” means a method of sewage disposal for sewage generated at a dwelling or premise, which utilizes onsite storage in a holding tank. The stored sewage is pumped as necessary by an approved tanker vehicle and transported to an approved offsite-receiving facility for final disposal.

SECTION 3.58: REDOXIMORPHIC FEATURES

“Redoximorphic Features” means a type of mottling that is associated with periodic moisture in a soil.

SECTION 3.59: REPLACEMENT ONSITE SEWAGE TREATMENT SYSTEM

“Replacement Onsite Sewage Treatment System” means new construction, expansion or modification of an onsite sewage treatment system at a property that previously contained an onsite sewage treatment system.

SECTION 3.60: RESERVE AREA

“Reserve Area” means a designated location to install a replacement onsite sewage treatment system on a piece of property.

SECTION 3.61: RETENTION BASIN

“Retention Basin” means a storm water management basin that captures storm water runoff and does not discharge directly to a surface water body. The water is "discharged" by infiltration or evaporation.

SECTION 3.62: RUBBISH

“Rubbish” means waste materials, except garbage. Rubbish includes, but is not limited to, paper, rags, cartons, boxes, wood excelsior, rubber, leather, tree branches, yard trimmings, tin cans, metals, mineral matter, glass crockery, plastics and the residue from the burning of wood, coal, coke, and other combustible material.

SECTION 3.63 SANITARY TEE OR TEE

“Sanitary Tee” or “Tee” means a “T” shaped fitting that allows sewage to flow into the horizontal outlet pipe by entering through the lower end of a vertical pipe.

SECTION 3.64: SEPTIC TANK

“Septic Tank” means a watertight manufactured container used to receive and store sewage emanating from a dwelling or premise, which biologically treats the organic matter and discharges the resulting clarified liquids.

SECTION 3.65: SEWAGE

“Sewage” means a combination of all domestic and/or organic waste from any dwelling or premise where persons reside, are employed or congregate. Sewage includes, but is not limited to, gray and blackwaters. Sewage does not include discharge water from water softeners; backwash from swimming pool or spa filters; or run-off from roof, footing or storm drains.

SECTION 3.66: SEWER OR SEWER PIPE

“Sewer” or “Sewer Pipe” means a watertight conduit for carrying sewage.

SECTION 3.67: SOIL ABSORPTION SYSTEM

“Soil Absorption System” means that part of an onsite sewage treatment system that distributes septic tank effluent through an arrangement of tile trenches, drainbeds, dry wells or other approved method by the Department and which allows the surrounding soil to absorb and treat the effluent.

SECTION 3.68: SOIL EVALUATION

“Soil Evaluation” means a process to determine and evaluate soil properties. Soil evaluations are used to estimate percolation rates and to identify absorption capabilities of the soil.

SECTION 3.69: STONE

“Stone” means natural, washed and graded stone, aggregate, crushed stone or crushed rock used as filter material in a soil absorption system approved by the Department.

SECTION 3.70: STONELESS CHAMBER OR STONELESS TUBING

“Stoneless Chamber” or “Stoneless Tubing” means a soil absorption system of chambers or tubing that is installed directly in an excavation of open soil and does not use stone. Stoneless soil absorption systems consist of 2 feet or 3 feet wide chambers or 12 inch diameter tubing covered with filter fabric laid in trenches that are generally 2 feet to 3 feet in width.

SECTION 3.71: SUPPLIED

“Supplied” means paid for, furnished, or provided by or under the control of, the owner or operator.

SECTION 3.72: TILE TRENCH

“Tile Trench” means a soil absorption system consisting of individual distribution systems of perforated sewer pipe that lies over a minimum of 6 inches to a maximum of 24 inches of stone. Tile trenches are generally 2 feet to 3 feet in width.

SECTION 3.73: UL

“UL” means Underwriter Laboratory.

SECTION 3.74: UNACCEPTABLE WATER QUALITY

“Unacceptable Water Quality” means public swimming pool water, which contains a heterotrophic plate count of more than 200 bacteria per milliliter and/or any detectable presence of coliform bacteria or pathogenic organisms.

SECTION 3.75: UNSANITARY CONDITIONS

“Unsanitary Conditions” as used in Article VI of this Code means conditions which constitute a violation(s) of Act 92 of the Public Acts of 2000 at the time of an inspection but do not constitute critical item violations but which are violations.

SECTION 3.76: VARIATION

“Variation” means an approved modification(s) of required conditions of this Code.

SECTION 3.77: WATER SUPPLY WELL

“Water Supply Well” means a well used to provide potable water for drinking or domestic purposes.

SECTION 3.78: WELL

“Well” means an opening in the surface of the earth for the purpose of removing fresh water, or a test well, irrigation well, recharge well, waste disposal well or a well used temporarily for dewatering purposes during construction.

CHAPTER 4: RULES OF CONSTRUCTION

The following rules of construction and guidelines apply to the administration, enforcement and interpretation of the provisions of this Code.

SECTION 4.01: INTERPRETATION

- a. When consistent with the context in which they appear in the text of this Code:
 - i. Words used in the present tense include the future; and,
 - ii. Words in the singular number include the plural number; and,
 - iii. Words in the plural number include the singular number.

- b. The word “shall” is always mandatory, and not merely directory.
- c. “He” shall also mean “she” or “it” and “she” shall also mean “he” or “it”.
- d. Words importing the singular number may be extended to embrace the plural number, and words importing the plural number may be applied and limited to the singular number.
- e. Words and terms not defined in this Code shall be interpreted in accordance with their commonly understood meaning.
- f. If any provision of this Code is susceptible to more than one meaning, it shall be construed or interpreted so as to provide the greatest protection to the health, safety and welfare of the public.
- g. The regulations in this Code, and any future amendments of those regulations, are intended to be consistent with applicable Federal and State laws and shall be construed, when necessary, to achieve that consistency. If any provision of this code is susceptible to more than one meaning, it shall be construed or interpreted so as to be consistent with Federal and State laws.

SECTION 4.02: HEADINGS

The Headings of the Articles, Chapters and Sections of this Code are provided for reference purposes only. If any discrepancy or disagreement exists between a Heading and the text of an Article, Chapter or Section, the text shall control.

SECTION 4.03: MEANING OF CERTAIN WORDS

Whenever the words “dwelling”, “dwelling unit”, or “premises” appear in this Code, they shall be construed as though they were followed by the words “or any part thereof.”

ARTICLE II: ONSITE SEWAGE TREATMENT REGULATIONS

CHAPTER 5: PURPOSE AND APPLICABILITY

SECTION 5.01: SINGLE FAMILY DWELLINGS, DUPLEXES AND OUTBUILDINGS

This Article of the Code pertains to: 1) the installation of onsite sewage treatment systems for single family dwellings, duplexes and outbuildings in areas where public, municipal or community sanitary sewer facilities are unavailable; 2) establishing the minimum criteria pertaining to onsite sewage treatment system design, permit issuance and installation approval of onsite sewage treatment systems and; 3) the operation and maintenance of such onsite sewage treatment systems.

SECTION 5.02: PUBLIC AND SEMI-PUBLIC ONSITE SEWAGE TREATMENT SYSTEMS

Onsite sewage treatment systems for dwellings other than single family homes, duplexes or outbuildings serviced with sanitary facilities shall comply with the design, construction and use specifications contained in the “Michigan Criteria for Subsurface Sewage Disposal” which the Michigan Department of Public Health’s Bureau of Environmental and Occupational Health promulgated in June, 1989.

SECTION 5.03: CONSTRUCTION AND MAINTENANCE OF PRIVIES AND SIMILAR TOILET DEVICES

- a. A person shall construct and maintain all privies and other toilets in accordance with Act 368 of the Public Acts of 1978, as amended.
- b. No person shall maintain, construct or move a privy onto any premise where a public sanitary sewer is available, or if state or local ordinances prohibit the use of a privy on the premise.
- c. Location of privies in relation to other dwellings and property lines: a privy shall serve only 1 dwelling; it shall be located at least 100 feet from all dwellings other than the dwelling it serves; and it shall be at least 10 feet from any property line.

SECTION 5.04: PUMPING OF SEPTAGE

A person engaged in the business of pumping sewage and/or effluent shall obtain the appropriate license. The licensing and handling of domestic Septage is regulated under the 2004 Public Act 381, which amended Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The Michigan Department of Environmental Quality (MDEQ), Water Bureau administers the Septage program.

CHAPTER 6: ONSITE SEWAGE TREATMENT SYSTEM PERMITTING CRITERIA

SECTION 6.01: CONNECTIONS REQUIRED

All toilets, urinals, lavatories, sinks, bathtubs, showers, laundry washing facilities and any other premise plumbing fixture from which sewage emanates, must be connected to an approved onsite sewage treatment system, or to a public sanitary sewer.

SECTION 6.02: PERMITS

An owner or owner's designated representative shall obtain a permit from the Department before constructing or replacing any onsite sewage treatment system or part thereof as required.

SECTION 6.03: APPLICATION FOR PERMIT

- a. An application for a permit to construct or replace an onsite sewage treatment system shall be completed in full and signed by the owner or the owner's designated representative.
- b. The submittal must include the required fee as specified in the current Fee Schedule as approved by the Kalamazoo County Board of Commissioners.
- c. The Department shall review the application and conduct a site evaluation before issuing a permit. The Department may also require the property owner or the property owners' designated representative to submit substantiating data including, but not limited to: engineering drawings, soil analysis, soil borings, percolation tests, groundwater and flow elevations, existing or proposed well locations and detailed plans for the proposed onsite sewage treatment system.
- d. A permit shall not be required for servicing or replacing with like kind mechanical or electrical parts to an approved existing onsite sewage treatment system, for pumping of the septic or holding tank contents, the installation of an approved outlet filter device or alternator valve where the soil absorption area is not disturbed, replacement of a broken lid or addition of a riser to any tank. The applicant should contact the Department to determine if other servicing requires a permit.

SECTION 6.04: PRIORITY OVER BUILDING PERMITS

No municipality, township or other agency shall issue a building permit for a building with plumbing, or allow commencement of construction on land where public sewers are unavailable unless the Department has issued a permit to construct an onsite sewage treatment system on that land.

SECTION 6.05: TERM OF PERMITS, RENEWAL

A permit to construct or replace an onsite sewage treatment system is valid for a 1-year period beginning on the date of issuance. No construction shall continue after the permit expires. Upon written request, the Department may extend the permit, at no additional charge, for an additional 6 months.

SECTION 6.06: VOID PERMITS

The Department shall declare a permit to construct or replace an onsite sewage treatment system void and terminated if:

- a. The applicant did not provide accurate information on the permit application; or,
- b. If major filling, excavating, paving or flooding has disturbed the area designated for the soil

absorption system; or,

- c. Public sanitary sewer becomes available after the issuance of the permit, or a renewal of the permit; or,
- d. A water supply well, or other feature that may impact the onsite sewage treatment system, encroaches on any required isolation distance; or,
- e. The property owner, or the property owner's designated representative changes or increases the scope of the authorized project without first securing the Department's approval of the change or increase in scope; or,
- f. The conditions on the permit are not followed.

SECTION 6.07: TRANSFER OF PERMITS

If a property owner transfers title of the property to another person prior to the expiration of a permit to construct or replace an onsite sewage treatment system on the property, the Department may transfer the permit to the new owner of the property if the new owner submits a written request to the Department for the transfer. The new owner must also agree, in writing, not to change the scope of the project without the Department's approval. If the Department authorizes the transfer of a permit, the act of transferring the permit does not change the permit's expiration date.

SECTION 6.08: DENIAL OF PERMITS

- a. The Department may deny an application for a permit to construct or replace an onsite sewage treatment system if the Department determines that one or more of the following conditions exist:
 - i. Where a public sewer is available to the property, as defined by Act 368, P.A. of 1978 as amended and this Code; or,
 - ii. Where the proposed location of a septic tank would render the septic tank inaccessible for cleaning or inspection purposes; or,
 - iii. Where the property to be served by the onsite sewage treatment system is too small to allow for proper isolation distances between the onsite sewage treatment system which includes the replacement area and any existing or proposed water wells, or surface waters; or,
 - iv. Where the property lacks sufficient drainage area and/or replacement area; or,
 - v. Where the property's high groundwater and/or mottling is 24 inches or less of the natural ground surface elevation for installation of an onsite sewage treatment system on new construction sites; or,

- vi. Where the property's stabilized percolation rate exceeds 60 minutes per inch; or,
 - vii. Where the Department determines that the property's soil classification and/or physical conditions are unsatisfactory for the treatment of sewage effluent; or,
 - viii. Where conditions exist upon the property, or may occur upon the property, which may endanger the public health or the environment; or,
 - ix. Where the proposed site is subject to flooding and/or is included within the 100-year flood plain.
- b. If the Department denies an application for a permit to construct or replace an onsite sewage treatment system, the Department shall provide the applicant with a written explanation of the reasons why the Department denied the application. The denial shall include options for filing an appeal and/or processes for appealing professional disagreements on soil classification, high groundwater, and mottling or redoximorphic features in the soil.

SECTION 6.09: BUILDING SITE ACCEPTANCE CRITERIA

The Department shall consider the following information to determine whether a property provides a suitable location for the construction of an onsite sewage treatment system:

- a. Soil Survey: The United States Department of Agriculture, Soil Conservation Service, soil classification and interpretations for the property, including any use limitations pertaining to the soil classification.
- b. Soil Evaluation: The Department may conduct soil borings or require excavations within the area proposed for the onsite sewage treatment system to determine if the property's high groundwater and/or mottling and soil formations comply with this Code. Additionally, in order to inspect and evaluate the property's soil conditions and type, the Department may direct the property owner or the owner's designated representative to conduct soil borings or excavations.
- c. High Groundwater - soil classification for new onsite sewage treatment system installations on new construction sites shall meet the following requirements:
 - i. The property's high groundwater or mottling shall be greater than 24 inches below the natural ground surface; and,
 - ii. The soil classification shall be acceptable and dry within 20 feet of the ground surface and a cut and fill or fill soil absorption system can be designed; and,
 - iii. 4 feet of vertical isolation to high groundwater or mottling will be maintained.

- d. High Groundwater - soil classification for replacement onsite sewage treatment system installations shall meet the following requirements:
 - i. The property's high groundwater or mottling is below the ground surface; and,
 - ii. The soil classification is acceptable or a cut and fill or fill soil absorption system can be designed; and,
 - iii. 4 feet of vertical isolation to high groundwater or mottling will be maintained.
- e. Filled Ground: The Department must approve, in writing, the use of filled ground or "made land" as the site for an onsite sewage treatment system. The Department may require mechanical compaction of the filled ground as a condition of approval of the use of filled ground or "made land" as the site for an onsite sewage treatment system. In no event shall the Department allow filled ground or "made land" to be located over unstable soil, peat, muck or organic material.
- f. Replacement Area for New Construction Sites: A portion of the property shall be set aside or put on reserve for the installation of a future replacement onsite sewage treatment system. The replacement area shall meet all building site acceptance criteria as contained in section 6.09 of this code.
- g. Slopes: If the property's slopes exceed 12%, the Department shall not issue a permit to construct or replace an onsite sewage treatment system until the property owner or the property owner's designated representative reduces the slopes in the location proposed for the absorption system to an acceptable level through the use of "land balancing" and maintains an adequate area for final grading to deter surface water from ponding. The Department may choose to issue a permit with land balancing requirements as a condition of the permit.

SECTION 6.10: INSPECTION AND VERIFICATION REQUIRED

- a. After completing the installation of all septic tanks, dosing tanks, sewer pipes, and soil absorption system, and before covering any portion of the onsite sewage treatment system or placing any portion of the onsite sewage treatment system into operation, the permit holder or the permit holder's designated representative shall request that the Department inspect the onsite sewage treatment system.
- b. If the Department approves the onsite sewage treatment system, the permit holder or the permit holder's designated representative shall cover the onsite sewage treatment system within 72 hours of the approval unless the Department requires the permit holder or the permit holder's designated representative to cover the onsite sewage treatment system sooner. If the Department finds the onsite sewage treatment system has not been properly covered within 72 hours or the time specified by the Department, the onsite sewage treatment system approval may be withheld or withdrawn.
- c. The Department may waive the requirements for a final inspection if the permit holder or the permit holder's designated representative provides the Department with proper verification that the permit holder or the permit holder's designated representative installed the onsite

sewage treatment system in accordance with the conditions of the permit. Proper verification may include an affidavit from a registered onsite sewage treatment system installer that he or she installed the onsite sewage treatment system in accordance with the conditions of the permit.

SECTION 6.11: PREMISE OCCUPANCY

- a. No person shall occupy, offer for occupancy, or allow the occupancy of any premise, which does not have an adequate onsite sewage treatment system, which treats all forms of sewage and/or effluent in a sanitary manner.
- b. All onsite sewage treatment systems permitted after the effective date of this Code shall be in accordance with the provisions of this Code.
- c. No owner or occupant of a premise shall cause or allow the discharge or deposit of sewage and/or effluent upon the surface of the ground, or into any lake, river, county drain, retention or detention basin, storm sewer or stream, or any other body of water.
- d. The Department may declare any premise constructed or maintained in violation of any provision of Article II of this Code as unfit for human habitation; order the vacating of the premise and post placard on the dwellings exterior walls which declare the premise unfit for human habitation.

SECTION 6.12: CONDEMNATION OF EXISTING INSTALLATIONS

The Department may condemn any premise where sewage or effluent emanates when:

- a. Sewage or effluent is exposed to, or drains onto, the surface of the ground; or,
- b. Sewage or effluent drains into any lake, river, county drain, retention or detention basin, storm sewer or stream, or any other body of water; or,
- c. Sewage or effluent seepage may endanger a public or private water supply; or,
- d. An improperly constructed, located or maintained onsite sewage treatment system creates an imminent danger or a public or private nuisance.

SECTION 6.13: CONNECTION TO PUBLICLY OPERATED SANITARY SEWER SYSTEM

Pursuant to Act 368 of the Public Acts of 1978, as amended, a local city, village or township can require an existing premise to connect to available public sanitary sewers. Availability is declared as a matter of legislative determination by the governing local city, village, or township. Available public sanitary sewer system means a public sanitary sewer system located in a right of way, easement, highway, street, or public way which crosses, adjoins, or abuts upon the property and passing not more than 200 feet at the nearest point from a dwelling in which sanitary sewage originates. Additionally, the Department shall require a premise to connect to available public sewer if the premise's onsite sewage treatment system creates a public health problem. Public health problems shall include, but not be limited to, the discharge of sewage and/or effluent onto the surface of the ground and/or sewage backing up into a premise. If a premise's onsite sewage

treatment system creates a public health problem, the Department may issue a written order directing the owner of the premise to pump the sewage and/or effluent immediately and/or to immediately connect to the public sewer, but in any case the premise's owner must connect to the public sanitary sewer within 18 months of the issuance of the Department's order to connect to the public sanitary sewer. After the premise connects to the public sanitary sewer, the Department may require the premise's owner to pump out the septic tank and dry well/block trench and then fill the empty septic tank and dry well/block trench with sand or other suitable materials. Pumping and filling of discontinued onsite sewage treatment system components serves the public interest by preventing ground collapse.

SECTION 6.14: DEVIATIONS

The Department may permit, upon receipt of a written request, a deviation from the application of the requirements of Article II, of this Code when the physical size or shape of a premise renders the application of the permit requirements impractical and/or the application of the Code would cause undue hardship. Only the Director of the Environmental Health Bureau shall consider and approve/deny deviations based upon undue hardship. The Department is also authorized to issue a deviation at time of final onsite sewage treatment system inspection without a written request if deemed necessary.

The Department shall thoroughly consider the physical limitations of the property; the protection of the public health, the environment; and the prevention of any nuisance, before approving the construction of an individual onsite sewage treatment system.

The Department may approve other methods of sewage treatment than the minimum requirements established in this Code upon submission and approval by the Appeal Board. The Department shall keep a written record of applications for deviations; the granting or denial of the application; and any conditions imposed upon the construction or use of an individual onsite sewage treatment system.

CHAPTER 7: REQUIREMENTS FOR THE CONSTRUCTION AND MAINTENANCE OF INDIVIDUAL ONSITE SEWAGE TREATMENT SYSTEMS

SECTION 7.01: SEWER PIPE

- a. Material: All sewer pipes used in the construction and operation of an individual onsite sewage treatment system shall meet the requirements of the Michigan Plumbing Code or other nationally recognized uniform plumbing code.
- b. Sewer lines shall meet the following:
 - i. All sewer lines located under any drive, parking area or utility right of way (i.e. overhead lines) must be double cased with schedule 40 PVC, SDR 35 PVC or similar materials as approved by the Department.
 - ii. Any buried gravity sewer pipe shall be located at least 10 feet from any well, spring, or potable water line.
 - iii. Any buried pressure sewer pipe shall be located at least 50 feet from any well, spring, or potable water line.

- iv. Inlet and outlet sewer lines to the septic tank shall be constructed of cast-iron soil pipe with sealed joints, schedule 40 PVC, SDR 35 PVC or similar materials as approved by the Department.
 - v. When entering and exiting an approved alternator valve, the sewer line exiting an alternator valve shall be a minimum of 2 feet in length; this pipe can then be connected to an approved crush pipe or a header pipe.
- c. **Size:** Blackwater sewer pipes more than 4 feet from the outside wall of any premise shall be 4 inch sewer pipe with proper clean-outs.
- d. **Grade:** The sewer pipe from the dwelling to a septic tank shall be at a grade of at least one eighth inch per foot but not more than one half inch per foot unless the Department approves of a different grade, in writing. If a major change in grade is necessary from the elevation that the sewer line exits the dwelling and enters the septic tank, the grade of one eighth inch per foot but not more than one half inch per foot shall be installed a minimum of 10 linear feet prior to the septic tank.

SECTION 7.02: SEPTIC TANKS

- a. **Location:**
- i. A septic tank shall be located in an area that allows access to the septic tank for cleaning or inspection purposes.
 - ii. No dwelling shall be placed over a septic tank if the dwelling makes the septic tank inaccessible for cleaning and inspection purposes.
 - iii. The septic tank shall be placed in a level position, on a firm base, and properly backfilled.
- b. **Access Holes:**
- i. Septic tanks with more than a 500-gallon capacity shall contain 2 openings, 1 located at the tank's outlet and 1 located at the tank's inlet.
 - ii. Septic tanks with a 500-gallon capacity, or less, shall contain at least 1 opening.
 - iii. When a new or replacement onsite sewage treatment system permit is issued, it shall be required to install a riser on a minimum of 1 opening of the existing and/or new septic tank. The construction of the openings and riser for all installations shall meet the following minimum requirements:
 - (1) The opening to the tank shall be a minimum of 12 inches; and,
 - (2) The riser and cover shall be of watertight construction; and,

- (3) The cover shall have acceptable protection with a padlock, a twist lock or other cover requiring a special tool for removal, a weight of 60 pounds or a similar tamper resistant, childproof type device approved by the Department; and,
- (4) The cover shall be within 3 inches of the finished grade.

c. Inlets and Outlets:

- i. All septic tank sewer pipe connections shall be watertight and sturdy.
- ii. The bottom of the septic tank's inlet line shall be at least 2 inches above the operating water level of the septic tank.
- iii. The septic tank's inlet pipe must permit gas above the liquid level to pass through the inlet pipe and out the vent pipe, which serves the sewer pipe and leads to the septic tank.
- iv. The septic tank's outlet shall permit the withdrawal of liquid from the middle third of the depth of liquid in the septic tank and prevent the escape of floating or settled solids with use of an approved sanitary tee or baffle, constructed of schedule 40 PVC, SDR 35 PVC or similar materials as approved by the Department.
- v. The septic tank's outlet must have a minimum scum clearance of 8 inches.

d. Construction material:

- i. A septic tank shall be constructed of sound and durable materials, which do not excessively corrode or decay, and which are structurally capable of supporting the stress to which they will be subjected.
- ii. A septic tank shall be watertight and the materials used to construct the septic tank shall prevent water from surrounding soils from flowing into the septic tank. Acceptable materials include reinforced concrete, cement blocks, or similar materials approved by the Department.

e. Number and Capacities: Septic tanks installed for premises (other than single and two family dwellings) after the effective date of this Code shall have a liquid capacity equal to, or greater than, the average volume of sewage flowing into it during any 24 hour period; or 1000 gallons, whichever is larger.

f. A septic tank installed in single and two family dwelling after the effective date of this Code shall have the following minimum capacity unless the Department determines that public health concerns require a greater minimum capacity.

SEPTIC TANK SIZES FOR SINGLE AND TWO FAMILY DWELLINGS

Total Number Of Bedrooms	Minimum Septic Tank Capacity (Without Garbage Grinder) (Gallons)	Minimum Septic Tank Capacity (With Garbage Grinder) (Gallons)
0-3	1000	1500 *
4	1500 *	2000 *
5 or more	2000* for 5 bedrooms, plus an additional 250 for each bedroom over 5	2500* for 5 bedrooms, plus an additional 250 for each bedroom over 5

* Dwellings with more than 3 bedrooms and/or dwellings with a garbage disposal must use multiple or compartmental septic tanks. In compartmental septic tanks, the first compartment must equal 2/3rds of the total capacity of the septic tank. Compartmental septic tanks must use a sanitary tee for all connections. Multiple septic tanks must use a series of sanitary tee connections between septic tanks in order to allow the drawing of liquid from the middle 1/3rd of the septic tank.

- g. Existing Septic Tanks: When a replacement onsite sewage treatment system permit is issued, the existing septic tank shall be brought into compliance as set forth in this Code.

SECTION 7.03: DOSING TANK, ALTERNATOR VALVE AND PUMPS

- a. Onsite sewage treatment systems utilizing septic tanks with liquid capacities in excess of 2000 gallons or soil conditions requiring 1200 square feet or more of soil absorption system for a drained or tile trench shall include the following:
 - i. Dosing tanks and/or pumping chambers equipped with a riser, which complies with the provisions of Section 7.02.b. of this Code.
 - ii. An effluent filter following manufactures installation requirements shall be installed prior to the pump.
- b. Alternator Valve: The Department may require the installation of an alternator valve. If the Department requires the installation of an alternator valve, the following criteria shall be met:
 - i. The construction and design must be watertight, schedule 40 PVC or similar materials as approved by the Department. Paddle valves shall be prohibited.
 - ii. A riser to grade shall be installed over the alternator valve to allow future access.
 - iii. If an alternator valve will be installed and the onsite sewage treatment system includes a pump, the pressure line from the pump shall be connected to a minimum of 10 feet of 4 inch schedule 40 PVC or SDR 35 PVC piping that will be installed prior to the valve unless pressure rated gate valves are utilized. This 10 foot section of pipe shall be installed from the pump chamber pressure line to the alternator valve so that gravity feed in and out of the alternator valve can be attained.

- c. Effluent Pumps: If the Department requires the installation of a pump, then following criteria shall be met:
 - i. Effluent pump shafts and the pump's fasteners shall be constructed of corrosion proof material such as stainless steel or PVC. An effluent pump shall have a minimum pumping capability that permits the discharge of 25% of the onsite sewage treatment system's estimated daily flow in 20 minutes.
 - ii. The pump shall be UL approved.
 - iii. The effluent pump's discharge line shall have an acceptable union that allows for the easy removal of the pump from the dosing chamber.
 - iv. All effluent pump connections shall be watertight.
 - v. All effluent pump electrical connections shall be enclosed in conduit and meet applicable electrical Codes.
 - vi. A check valve shall be installed on the discharge line unless otherwise permitted by the Department.

SECTION 7.04: SOIL ABSORPTION SYSTEMS

- a. Location: A soil absorption system shall not be constructed under any drive, parking area, paved surface, building, or in an area subject to surface water collection.
- b. The tile trench shall be the preferred soil absorption system design over drainbeds. Drainbeds may be used in lieu of tile trenches based upon topographical and space constraints on a property. Drainbeds shall be designed to achieve maximum length and shall not be designed to exceed 30 feet in width.
- c. Distribution System: The soil absorption system shall be constructed of perforated sewer and drainpipe or other materials certified as complying with the Michigan Department of Environmental Quality's Standards. Soil absorption system stone shall be covered with filter fabric prior to the placement of final soil cover.

SECTION 7.05: FILL SAND

To ensure both the performance and longevity of an onsite sewage treatment system, fill sand that will be approved for the soil absorption system must meet the following criteria:

- a. Michigan Department of Transportation (MDOT) 2NS gradation or equivalent and approved by the Department.
- b. Placement of fill sand shall be done in manner that will eliminate or minimize soil compaction within the prescribed soil absorption area.
- c. When in the opinion of the Department the fill sand does not meet 2NS requirements or equivalent, a test may be required by the Department at the cost of the contractor who installed the onsite sewage treatment system.

SECTION 7.06: STONE REQUIREMENTS

Stone used in a soil absorption system shall meet MDOT 6A requirements or equivalent and be approved by the Department. When in the opinion of the Department the stone installed does not meet 6A requirements, a sieve analysis may be required by the Department at the cost of the contractor who installed the onsite sewage treatment system. Float stone and limestone shall be prohibited.

SECTION 7.07: MINIMUM REQUIRED ISOLATION DISTANCES IN FEET

(Note: Specific Land Division, Subdivision and/or Site Condominium isolation requirements may be more stringent.)

From:	To: Septic Tank (Horizontal Feet)	To: Soil Absorption System (Horizontal Feet)
Well	50	50
Property Line	5	5
Basement Wall/Crawl Space Below Grade	10	15
Walkout/Crawl Space Above Grade/Slab	5	5
Water Line	10	10
Dry Well	5	5
Bank/Drop Off	10	20
Lake/Stream	50	50
High Groundwater or Mottling	--	4 (Vertical)
In ground Swimming Pools	10	15
Septic Tank	--	5
Closed Storm Drain	10	10
Open Storm Drain or Storm Drywell	25	25
Retention Basin/Detention Basin/County Drain	50	50
Alternator Valve	3	3

SECTION 7.08a: TILE TRENCH CONSTRUCTION SPECIFICATIONS

(Note: Permit conditions may be more stringent)

Item:	Minimum:	Maximum:
Number of Tile Trenches	2	--
Pipe Size (Non-pressurized)	4 Inches	--
Pipe Size (Pressurized)	1.5 Inches	--
Length of Tile Trench	--	100 Feet
Width of Tile Trench	18 Inches	36 Inches
Space Between Tile Trenches (Stone to Stone)	4 Feet	--
Amount of Soil Cover Over Filter Fabric	6 Inches	24 Inches
Slope of Pipe	Level	2 Inches per 100 Feet
Stone Under Pipe Tile Trench	6 Inches	24 Inches
Stone Over Pipe and Level Across Tile Trench	2 Inches	--

SECTION 7.08b: SIZING CRITERIA FOR TILE TRENCHES

Type of Soil	Estimated Percolation Rate (Minutes Per Inch)	Size of Tile Trench (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	0-10	200
Sandy Loam	10-30	250
Loam	30-45	300
Sandy or Silty Clay Loam	45-60	350
Clay and Silt	>60	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- c. All tile trench soil absorption systems must be at least 600 square feet in size.
- d. Loam, Sandy Clay Loam, Silty Clay Loam, soils may be required to be removed from the soil absorption system area as a permit requirement. See Section 7.12.

SECTION 7.09a: DRAINBED CONSTRUCTION SPECIFICATIONS

(Note: Permit conditions may be more stringent)

Item:	Minimum:	Maximum:
Distance Between Lines	--	36 Inches
Distance Between Lines and earth wall	--	18 Inches
Pipe Size (Non-pressurized)	4 Inches	--
Pipe Size (Pressurized)	1.5 Inches	--
Slope of Pipe	Level	2 Inches per 100 Feet
Stone Under Pipe in Bed	6 Inches	6 Inches
Stone Over Pipe and Level Across Bed	2 Inches	--
Space Between Drainbeds (Stone to Stone)	4 Feet	--
Amount of Soil Cover Over Filter Fabric	6 Inches	24 Inches

SECTION 7.09b: SIZING CRITERIA FOR DRAINBEDS

Type of Soil	Estimated Percolation Rate (Minutes Per Inch)	Size of Drainbed (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	0-10	250
Sandy Loam	10-30	300
Loam	30-45	350
Sandy or Silty Clay Loam	45-60	400
Clay and Silt	>60	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- c. All drainbed soil absorption systems must be at least 800 square feet in size.
- d. Removal of Loam, Sandy Clay Loam and Silty Clay Loam soils may be required from the soil absorption system area as a permit requirement. See Section 7.12.

SECTION 7.10: STONELESS CHAMBERS OR STONELESS TUBING

The installation of stoneless chambers or stoneless tubing soil absorption systems may be considered by the Department based upon site limitations such as access to the property with large equipment, soil conditions, slopes or other site factors. The Department will also consider requests for stoneless chambers or tubing from a property owner. Prior to installing a stoneless chamber soil absorption system, a Kalamazoo County registered sewage contractor must first obtain a certification from the manufacturer to install the specific stoneless product. Certification is not required to install a stoneless tubing soil absorption system. The contractor or product manufacturer must supply the certification information to the Department.

SECTION 7.11a: STONELESS CHAMBER OR STONELESS TUBING CONSTRUCTION SPECIFICATIONS

(Note: Permit conditions may be more stringent)

Item:	Minimum:	Maximum:
Number of Stoneless Trenches	2	--
Length of Stoneless Trenches	--	100 Feet
Space Between Stoneless Trenches	4 Feet	--
Amount of Soil Cover	18 Inches	24 Inches
Slope of Chamber or Tubing	Level	2 Inches per 100 Feet
Risers	Two - 4 Inch risers to grade (1 at each end on each stoneless trench)	--

SECTION 7.11b: SIZING CRITERIA FOR STONELESS CHAMBERS OR STONELESS TUBING

Type of Soil	Estimated Percolation Rate (Minutes Per Inch)	Size of Stoneless Chamber or Tubing (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	0-10	250
Sandy Loam	10-30	300
Loam	--	Unacceptable
Sandy or Silty Clay Loam	--	Unacceptable
Clay and Silt	--	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- c. The sizing allowance for stoneless soil absorption systems will be specifically as follows:
 - i. 3 square feet of soil absorption system area per linear foot of a 3 foot wide chamber; or,
 - ii. 2 square feet of soil absorption system area per linear foot of a 2 foot wide chamber; or,
 - iii. 2 square feet of soil absorption system area per linear foot of a 10 inch or 12 inch diameter tubing.

SECTION 7.12: CRITERIA FOR CUT AND FILL OR FILL SOIL ABSORPTION SYSTEMS

- a. A cut and fill or fill soil absorption system may be required when:
 - i. Unacceptable soils (clay, silt, mottled clay, mottled silt, marl) are within 20 feet of the ground surface with permeable dry soils found below the impermeable soils; and/or,
 - ii. High groundwater or mottled conditions are within 8 feet of the ground surface; and/or,
 - iii. Removal of heavier permeable soils (loam, sandy clay loam, silty clay loam) is deemed necessary by the Department.
- b. When a cut and fill or fill soil absorption system design is necessary the following criteria must be met:
 - i. Removal of the impermeable soils to the permeable soils will be required and approved fill sand shall be placed from the permeable soil as needed to allow soil absorption system installation.
 - ii. A minimum of 4 feet of isolation must be provided between the bottom of the soil absorption system and the high groundwater or mottling by way of naturally permeable soils or approved fill sand material.
 - iii. The sizing of the soil absorption system area for these types of site conditions will be based upon the application rate for the permeable soils within 6 feet of the bottom of the soil absorption system however, the minimum size for a soil absorption system will be no less than 900 square feet for a drainbed or tile trench soil absorption system or 600 square feet for a drywell soil disposal system.

SECTION 7.13: BACKFILLING OF SOIL ABSORPTION SYSTEMS

Soil absorption systems other than drywells shall be backfilled after installation and approval with a sandy loam soil texture or material otherwise approved by the Department. Backfilling with loam or heavier soil textures shall be prohibited.

SECTION 7.14: DRY WELL PERMITTING AND CONSTRUCTION SPECIFICATIONS

- a. **New Construction Dry Wells:** The use of dry wells for onsite sewage treatment system installations for new construction sites will not be allowed.
- b. **Replacement Dry Wells:** The use of dry wells for a replacement onsite sewage treatment system installation shall be acceptable for consideration through a deviation request, (see Section 6.14) if there is insufficient area on a property or other atypical site constraints with an existing dwelling to install a tile trench or drainbed soil absorption system. It shall be the responsibility of the owner or owner's designated representative of the property to request in writing the consideration for a deviation.

- c. After receipt of a deviation request, prior to issuing a deviation permitting the installation of dry wells the Department shall consider factors such as, but not limited to, the following:
 - i. Whether an impermeable barrier exists between the installation area and any aquifer; and,
 - ii. The background water quality; and,
 - iii. Any other factors relating to the protection of groundwater, such as soil texture, residential density and down gradient water use.

- d. Construction Materials:
 - i. Materials utilized for the construction of a dry well shall be durable and shall possess sufficient structural strength to prevent collapse or cave in of the excavation. Acceptable materials include cement blocks, pre-cast concrete, or similar materials if approved by the Department.
 - ii. Materials must allow free passage of sewage effluent to the surrounding infiltrative surfaces while preventing stone or soil from entering into the lined cavity.
 - iii. Stone used in the installation of a drywell sewage disposal system shall meet the requirements as stated in Section 7.06 and contained on the permit.

- e. Inspection Port and Cover:
 - i. Inspection port or cover shall be located on the top surface of a dry well in order to facilitate inspection.
 - ii. Inspection port or cover shall be made out of material with strength and durability equivalent to that of reinforced concrete and shall be a minimum diameter of 12 inches.

- f. Construction Limitations: 8 feet is the maximum permissible distance between the ground surface and the bottom of a drywell unless the Department issues a deviation.

g. Dry Well Sizes:

Type of Soil	Estimated Percolation Rate (Minutes Per Inch)	Size Including Bottom and Side Wall Area (Square Feet Per Bedroom)
Sand & Gravel, Loamy Sand	0-10	140
Sandy Loam	10-30	175
Loam	30-45	210
Sandy or Silty Clay Loam	--	Unacceptable
Clay and Silt	--	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

h. All dry wells must have at least 420 square feet of soil absorption system area.

i. Pumped onsite sewage treatment systems must have an even number of dry wells if an alternator valve is required.

SECTION 7.15: PROTECTION OF INFILTRATION SURFACES

a. The Department may stop the installation of a soil absorption system when the soils in the installation area are in a wet or saturated condition. The Department may also require allowable specific installation times based upon weather conditions on the permit.

b. As a condition of issuing a permit for the installation of an individual onsite sewage treatment system, the Department shall require the permit holder and installer to exercise precautions when excavating, moving machinery or walking in the soil absorption area, so as to minimize the smearing or compaction or sealing of infiltrative surfaces.

SECTION 7.16: OPERATION AND MAINTENANCE

The owner of a premise, which utilizes an onsite sewage treatment system, shall maintain the onsite sewage treatment system in a satisfactory operating condition at all times. The Department may require additional conditions on a construction permit or require deed restrictions pertaining to required operation and maintenance work that may be necessary by the owner of the property for an existing or newly permitted onsite sewage treatment system. It shall be the owner's responsibility to inform future owners that operation and maintenance requirements exist.

CHAPTER 8: ONSITE SEWAGE TREATMENT SYSTEM INSTALLER REGISTRATION REQUIREMENTS

SECTION 8.01: REQUIRED REGISTRATION AND CONTINUING EDUCATION

a. Any person engaging in the business of installing onsite sewage treatment systems, or any parts thereof, within Kalamazoo County, must first secure a certificate of registration from the Department.

- b. A certificate of registration shall be valid from January 1 until December 31 of the current year.
- c. After December 31, 2007, before the Department issues a person his/her initial certificate of registration, the business owner must achieve a minimum score of 70% on a written examination. The written examination is based on the contents of Article II of this Code. An applicant can retake the test as many times as necessary to achieve the minimum score.
- d. After completion of the examination with a passing score and the initial paid registration for a 1 year period, proof of completion of a minimum of 8 continuing education units (CEU's) related to sewage treatment must be submitted to the Department and approved prior to the Department issuing a renewing certificate of registration. A minimum of 4 CEU's shall be obtained by the business owner and 4 shall be obtained by 1 or more of the owner's employees.
 - i. 4 CEU's shall be available by attendance at the Department sponsored annual educational half-day seminar.
 - ii. CEU's are also available by attendance at any sewage related State education training session. It shall be the responsibility of the applicant to submit proof of CEU's to the Department when applying to renew their onsite sewage treatment system installer's registration.
 - iii. Failure to obtain and submit the required 8 CEU's after initial registration will result in an onsite sewage treatment system installer's registration NOT being re-issued until such time the 8 CEU's are obtained, submitted and approved by the Department.
- e. A homeowner may install an onsite sewage treatment for their own primary residence and is exempt from the testing and registration requirements.

SECTION 8.02: SUSPENSION OF REGISTRATION

- a. The Department may suspend the certificate of registration of any installer who engages in practices that violate the provisions of Article II of this Code.
- b. An installer who receives a notice of intended suspension shall have the right to an Informal Hearing, conducted in accordance with Article VII of this Code, to review the validity of the suspension. The installer must submit a written request for an Informal Hearing to the Department within 30 days of the date the Department mailed the notice of suspension.
- c. If the Department determines an installer's certificate of registration must be suspended, the Department shall provide the installer with a written notice of the suspension; the reason(s) for the suspension; the length of the suspension; and how the installer can request an Informal Hearing to have their registration reinstated.

CHAPTER 9: APPEALS

- a. A permit holder, applicant or designated representative directly affected by the Department's implementation, interpretation and/or enforcement of this Code may file an appeal with the Appeals Board.
- b. An Appeals Board shall exist to provide interpretations and/or exceptions of the provisions of the regulations contained in Article II of this Code. The Appeals Board shall consist of 3 members who shall be recommended by the Kalamazoo County Health & Community Services Department to the Kalamazoo County Board of Commissioners for appointment to the Appeals Board. The 3 members shall consist of: 1) an onsite sewage treatment installer registered in accordance with these regulations; 2) an active builder and member of the Home Builders Association of Greater Kalamazoo; and 3) a resident of Kalamazoo County. The term of office of a Board member shall be 3 years. The Board of Appeals shall hear any appeal presented in accordance with the rules of procedure established by the Board of Appeals. The Board of Appeals shall furnish the applicant with a written report of its findings and decisions.
- c. Appeals shall be submitted in writing and must be accompanied by the appropriate fee. Appeals shall be addressed to the Kalamazoo County Health & Community Services Department, Environmental Health Director. Within 60 days of the appeal being submitted, the Board of Appeals shall hold a hearing. The Board of Appeals may grant individual deviations from the requirements of this Article of the Code for onsite sewage treatment systems for single family residences and duplexes, when the Board of Appeals has adequately determined that all of the following conditions exist: 1) no substantial health hazard or nuisance is likely to occur; 2) compliance with the regulations requirements would result in unnecessary or unreasonable hardship; 3) no state statute or other applicable laws would be violated under such deviation; and, 4) the proposed deviation would provide essentially equivalent protection of the public interest.
- d. In reaching its decision, the Board of Appeals may utilize the hearing procedures set forth for Informal Hearings or Formal Hearings in Article VII of this Code and the Board of Appeals shall act as the Hearing Officer.

CHAPTER 10-12: RESERVED FOR FUTURE USE

ARTICLE III: WATER SUPPLY REGULATIONS

CHAPTER 13: PURPOSE

This Article of the Code seeks to assure that all private, Type II and Type III Non-Community Water Supply Systems provide a safe and adequate water supply to the systems' users.

CHAPTER 14: GENERAL PROVISIONS

SECTION 14.01: FACILITIES REQUIRED

Every building used for human habitation must have an approved water supply system. The Health Officer shall have the duty and responsibility of approving, upon application, a buildings' water supply system.

SECTION 14.02: WELL CONSTRUCTION

The construction of water wells and the installation of water well pumps shall comply with the requirements set forth in the Groundwater Quality Control Rules, Part 127 of Act 368 of the Public Acts of 1978, as amended, being MCL 333.12701-333.12771; Act 399 of the Public Acts of 1976, as amended, being MCL 325.101 et. seq; and/or Part 201 of Act 451 of the public Acts of 1994, as amended, being MCL 324.20101-324.20142.

SECTION 14.03: PERMIT FOR WATER SUPPLY SYSTEMS

From and after the effective date of this Code, no person shall construct any new water supply system within the County of Kalamazoo unless the owner of the water supply system, or his/her/its representative, obtains a water supply system construction permit from the Health Officer.

SECTION 14.04: PRIORITY OVER BUILDING PERMITS

No municipality, township or other agency shall issue a building permit or otherwise allow commencement of construction on any land which requires the installation of a water supply system unless the Health Officer has issued a water supply system construction permit for that land.

SECTION 14.05: APPLICATION, PERMIT AND FEES

The Health Officer shall prepare and provide, to all applicants, a standard water supply system construction permit application. Any person who wants to construct a water supply system must submit a signed and completed application, along with the fee contained in the Schedule of Fees, to the Health Officer.

SECTION 14.06: DENIAL OF PERMITS

After reviewing an application for a water supply system construction permit, the Health Officer may deny the application or issue a restricted construction permit if the Health Officer determines that one or more of the following conditions exist:

- a. The applicant provided incomplete, inaccurate or false information; or,
- b. The proposed water supply system or water supply well will not comply with Part 127 of Act 368 of the Public Acts of 1978, as amended, or Act 399 of the Public Acts of 1976, as amended; or,
- c. Where the proposed location of the proposed water supply system or water supply well is in an area where the Michigan Department of Environmental Quality has issued an advisory against the use of water supply wells in the area or if the location is within a service area defined by the Michigan Department of Environmental Quality pursuant to R299.5409 as amended unless special well construction techniques or screening of a well at a depth not affected by contamination would allow the well to be isolated from the contamination which resulted in the issuance of an advisory to the establishment of a service area by the Michigan Department of Environmental Quality; or,
- d. Where a water supply system or water supply well is proposed to be served by groundwater which the Human Services Department has knowledge is contaminated or likely to be contaminated by hazardous substance in excess of the residential drinking water criteria unless special well construction techniques or screening of a well at a depth not affected by contamination would allow the well to be isolated from the contamination. Hazardous substance and residential drinking water criteria have the same meaning as when those terms are used in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended, being MCL 324.20101 et seq. When the Human Services Department has made such a determination, the Human Services Department shall make available to the public, upon request, a map of the area affected by this determination.

SECTION 14.07: VOID PERMITS

The Health Officer may declare a previously issued water supply construction permit to be null and void for any of the following reasons:

- a. False, inaccurate, or incomplete information was supplied by the permit applicant, permit holder, or their representative; or,
- b. A change in the plans of the permit holder affects the water supply design, location or use; or,
- c. Current facts, data, or conditions which affect the previously issued permit in a manner that now prevents compliance with this Code or may endanger public health, or degrade groundwater quality; or,
- d. Isolation distances required by this Code cannot be satisfied.

SECTION 14.08: TERMINATION OF PERMITS; RENEWAL

A permit issued pursuant to the requirements of the preceding sections shall be valid for one year from the date of issuance. No construction shall continue after the permit expires. Upon written request, the Health Officer may extend the permit, at no additional charge, for an additional six (6)

months.

SECTION 14.09: TRANSFER OF PERMITS

If a property owner transfers title of the property to another person prior to the expiration of a water supply system or water well construction permit, the Health Officer may transfer the permit to the new owner of the property if the new owner submits a written request to the Health Officer for the transfer. The new owner must also agree, in writing, not to change the scope of the project without the Health Officer's approval. Both the original permit holder and the new owner of the land must sign the request to transfer the permit. If the Health Officer authorizes the transfer of a permit, the act of transferring the permit does not change the permit's expiration date.

SECTION 14.10: INSPECTION AND APPROVAL

The Health Officer shall inspect all new water supply system installations to determine if the construction complies with the provisions of this Code.

SECTION 14.11: NOTICE TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

The Human Services Department shall provide the Michigan Department of Environmental Quality with written notice of any modification to, or revocation of, the provisions of Article III of this Code. No modification or revocation shall take effect until thirty (30) days after the Michigan Department of Environmental Quality receives the notice of the modification or revocation.

CHAPTER 15: VARIATIONS AND APPEALS

SECTION 15.01: VARIATIONS

- a. The Health Officer may grant a variation in the tests, standards, or general requirements contained in Article III of this Code if the Health Officer receives a written application for a variation and the Health Officer determines:
 - i. The strict application of these rules/regulations will result in unnecessary or unreasonable hardship; and,
 - ii. The Health Officer can place conditions upon the variation which will adequately protect the public's health, safety and welfare; and,
 - iii. That the action/inaction of the applicant, or any of the applicant's predecessors in interest, did not cause the need for the variation (e.g. that condition necessitating the variation is not a self-created hardship).
- b. If the Health Officer issues a variance, the Health Officer shall record the variation in writing and include a description of the actual variation; the section of the Code from which the variation was granted; the reasons for granting the variation; and any time limit imposed upon the variation.
- c. Under no circumstances may the Health Officer grant a variation which may jeopardize the

public health, safety, or welfare, or which violates any local, state or federal law.

SECTION 15.02: APPEALS

A person may appeal the Health Officer's denial/suspension of a permit or the denial of an application for a variation under this Article of the Code pursuant to the provisions contained in Article VII of this Code. A person may also appeal from the decision contained in a Declaratory Ruling from the Health Officer. Appeals from Declaratory Rulings shall also be conducted in accordance with the provisions of Article VII of this Code.

ARTICLE IIIa: PUBLIC SWIMMING POOL WATER QUALITY TESTING

CHAPTER 16a: WEEKLY TESTING; QUARTERLY TESTING; UNACCEPTABLE WATER QUALITY

SECTION 16.01a: WEEKLY TESTING

All persons, firms, companies or corporations who own, operate or maintain a public swimming pool shall collect water samples from the public swimming pool on a weekly basis unless the public swimming pool qualifies for quarterly testing pursuant to Section 15.03a of this Code. The samples shall be analyzed for total coliform bacteria levels and heterotrophic plate counts at the Human Services Department Laboratory or at a Laboratory certified to analyze drinking water by the Michigan Department of Environmental Quality or the United States Environmental Protection Agency.

SECTION 16.02a: REPORTING SAMPLE RESULTS

If the public swimming pool operator and/or owner has the water samples tested at a laboratory other than the Human Services Department Laboratory, the operator and/or owner shall provide the Health Officer with the results of the water analysis within two business days of the completion of the analysis.

SECTION 16.03a: QUARTERLY TESTING

Any person, firm, company or corporation which owns, operates or maintains a public swimming pool may apply to the Health Officer for authorization to collect water samples on a quarterly (once every three months) basis. The Health Officer shall permit the person, firm, company or corporation to collect samples on a quarterly basis if the person, firm, company or corporation meets all of the following conditions:

- a. The person, firm, company or corporation responsible for operating and maintaining the public swimming pool must maintain a current, valid, Certified Pool Operators Certificate issued by the National Swimming Pool Foundation; another nationally recognized governing body; or attend an annual training session sponsored by the Human Services Department.
- b. The water samples from the public swimming pool for the four weeks immediately preceding the application were negative for total coliform bacteria and each sample contained a standard plate count of less than 200.
- c. The public swimming pool is in compliance with all other laws, regulations and rules applicable to the operation of a public swimming pool.
- d. The person, firm, company or corporation responsible for operating and maintaining the public swimming pool must submit a Monthly Pool/Spa Reports to the Health Officer. The Monthly Pool/Spa Reports must be submitted within ten (10) days after the end of the month to which the reports pertain. Monthly Pool/Spa Reports forms can be obtained from the health Officer.

- e. If the owner or operator of a public swimming pool, which has been authorized to collect water samples on a quarterly basis, fails to comply with the conditions set forth in this Section, then the owner or operator shall collect weekly water samples in accordance with Section 15.01a of this Regulation.

ARTICLE IIIb: WATER SUPPLY REGULATIONS - RESTRICTED ZONES

CHAPTER 17b: PURPOSE

The County of Kalamazoo has determined that the use of certain groundwater wells, and the water supplies from such wells, for human consumption or other purposes may constitute a public health risk and endanger the safety of the residents of the County. These identified public health risks affect premises that are located on or in the vicinity of sites that are the source, or location, of Contaminated Groundwater, or where there is a known threat from Contaminated Groundwater. The County has determined it is in the best interests of the public health, safety and welfare to prohibit certain uses of groundwater from wells at properties located in the vicinity of such contaminated sites.

CHAPTER 18b: DEFINITIONS

As used in Article IIIa:

SECTION 18b.01: Affected Premises means a parcel of property, which is located within a Restricted Zone.

SECTION 18b.02: Applicant means a person who applies for the establishment of a Restricted Zone.

SECTION 18b.03: Contaminated Groundwater means groundwater that contains concentrations of materials in excess of the residential drinking water criteria established by the MDEQ in operational memoranda or rules promulgated pursuant to Part 201, Environmental Remediation (MCL 324.20101 et seq.), or Part 213, Leaking Underground Storage Tanks (MCL 324.21301a et seq.) of the Natural Resources and Environmental Protection Act, 1994 PA 45 1, as amended, MCL 3 24. 1 01 et seq.

SECTION 18b.04: Groundwater means underground water within the zone of saturation.

SECTION 18b.05: MDEQ means the Michigan Department of Environmental Quality, or its successor agency.

SECTION 18b.06: Person means any individual, co-partnership, corporation, association, club, joint venture, estate, trust, governmental unit or agency and/or any other group or combination acting as a unit, and the individuals constituting such group or unit.

SECTION 18b.07: Restricted Zone means an area or areas described in Chapter 19b of this Code.

SECTION 18b.08: USEPA means the United States Environmental Protection Agency, or its successor agency.

SECTION 18b.09: Water Division means the Water Division, or its successor, of the MDEQ.

SECTION 18b.10: Well means an opening in the surface of the earth for the purpose of removing fresh water through non-mechanical or mechanical means for any purpose other than a public

emergency or conducting response actions that are consistent with the Michigan Natural Resources and Environmental Protection Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, or other applicable statute.

CHAPTER 19b: RESTRICTED ZONES

Established Restricted Zones. The following described areas in the County shall be Restricted Zones under this Chapter. They may be referred to by reference to the names provided in the caption preceding their descriptions. A map of each Restricted Zone is located in Appendix A of this Code.

CHAPTER 20b: ADDING NEW RESTRICTED ZONES; PRELIMINARY CONSIDERATION

The County Board of Commissioners may amend this Code to add new Restricted Zones in accordance with the following procedure.

SECTION 20b.01: A Person seeking the establishment of a Restricted Zone shall first file with the County Administrator a request that the County establish a Restricted Zone pursuant to this Code. The Request must include a written Notice that identifies the proposed general boundaries of the Restricted Zone, the reason for establishing the Restricted Zone, a preliminary map of the Restricted Zone, and the proposed time schedule for implementing the Restricted Zone. The Person submitting the request to the County Administrator shall also provide a copy of the Notice to the local unit of government (city, township and/or village) having jurisdiction over the proposed Restricted Zone. When the proposed Restricted Zone is located with/in more than one local unit of government, the Person shall provide copies of the Notice to all of the local units of government.

SECTION 20b.02: The County Administrator shall notify the County Board of Commissioners of the receipt of the Request for the Establishment of a Restricted Zone by the Board of Commissioners' first regularly scheduled meeting after the Administrator receives the Request.

SECTION 20b.03: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Person submitting the Request demonstrates that creation of the Restricted Zone would eliminate the need to impose environmental restrictive covenants on property or would otherwise provide a tangible or quantifiable benefit.

SECTION 20b.04: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Person requesting the establishment of the Restricted Zone guarantees and provides for municipal water service, unless the Board of Commissioners determines that providing municipal water service is technically unreasonable from an engineering perspective, or is otherwise impractical.

SECTION 20b.05: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Applicant guarantees, and provides the County Board of Commissioners with the identification or location of all non-conforming wells on any affected premises, and provides for the proper abandoning and plugging of all nonconforming wells on any Affected Premises without cost to the owners or occupants, other than the person requesting the establishment of the Restricted Zone, of the Affected Premises and in compliance with Chapter 23.a "Water Sources for Human Consumption" of this Code. To meet this guarantee, the Person shall either

provide the County Administrator with written Proof of the provision of such service and the plugging/abandonment of such wells; or establish an escrow account, letter of credit, performance bond, or other acceptable form of financial assurance, in an amount and form acceptable to the County Board of Commissioners, to ensure that the Person making the Request will provide such service and the plugging/abandonment of such wells.

SECTION 20b.06: If, after reviewing the Person's request for consideration of the establishment of a Restricted Zone and considering the standards set forth in Sections 20b.01-20b.05, and after taking into consideration whether the establishment of a Restricted Zone will benefit the health safety and/or welfare of the residents of Kalamazoo County, the County Board of Commissioners is willing to consider the request for the establishment of a Restricted Zone, the Administrator shall provide the Person making the request with a written, preliminary, and non-binding, indication of the County's willingness to consider the Application.

CHAPTER 21b: ADDING NEW RESTRICTED ZONES; FORMAL CONSIDERATION AND APPROVAL

SECTION 21b.01: After receiving the County's preliminary indication of its willingness to consider the establishment of a Restricted Zone, a Person may submit an application for the formal establishment of a Restricted Zone to the County Administrator. The formal application can be in the form of a proposed remedial action plan or other appropriate documentation if appropriate cross-references are made for ease of reference.

SECTION 21b.02: The application for the formal establishment of a Restricted Zone shall include, at a minimum, the following information, together with any escrow deposit as required under this Section.

- i. The name, address, and phone number of the Applicant, as well as each person having an interest as owner, tenant easement holder or mortgagee of record in the real property which is the source or site of the contaminated groundwater, if known.
- ii. The street address and legal description of the real property which is the source or site of the contaminated groundwater, if known, and the nature of the Applicant's relationship to that property and involvement concerning the contaminated groundwater.
- iii. The nature and extent of the groundwater contamination and the substances causing the contamination, both in summary form and in plain English. These disclosures should also include a description in detail and in technical terms, stating the types and concentrations of contaminants', a map or survey showing the contaminants' current location- a statement of the contaminants' likely or anticipated impact on groundwater and the nature of the risks presented by the use of the groundwater, as well as the likely or anticipated path of the contaminants' migration if not remediated or corrected and a detailed statement of any plan to remediate, correct and/or contain the contamination.
- iv. A detailed map and legal description of the proposed Restricted Zone.

- v. The street addresses and general description of the proposed Restricted Zone.
- vi. The names, addresses (mailing and street), and phone numbers (if readily available) of all persons with an interest as owner, tenant, easement holder, or mortgagee of record in any of the Affected Premises.
- vii. The location, current status, and usage characteristics of all existing groundwater wells within the proposed Restricted Zone.
- viii. The MDEQ's or USEPA's (as appropriate) written approval of the proposed Restricted Zone as an alternative to imposing restrictive covenants on property on which no release has occurred; and,
- ix. A copy of the information submitted to the MDEQ or USEPA concerning the proposed Restricted Zone, along with a written statement from an MDEQ or USEPA representative with approval authority stating that the proposed Restricted Zone and use regulations have received MDEQ or USEPA approval as part of the response actions for the groundwater contamination. The MDEQ or USEPA approval may be contingent upon the County's establishment of the proposed Restricted Zone pursuant to this Chapter.
- x. Applicant shall provide a detailed statement or description of any contemplated exemptions from the prohibitions contained in this Code concerning the use of existing and future wells within the Restricted Zone.
- xi. A description and time schedule for any actions the Applicant will take to implement any remediation plan, to mitigate the adverse impact of the implementation of the Restricted Zone (e.g. providing substitute water service), and to properly close and abandon any existing wells subject to the use prohibition within the proposed Restricted Zone.
- xii. Copies of the notices provided to the owners of Affected Property within the Restricted Zone, together with a sworn statement that such notices were provided to all such owners with details of the manner in which such notices were provided. At a minimum, the notice must:
 - a. Identify the sender of the notice including the sender's name, address, contact person and telephone number.
 - b. Identify the owner of the property which is the source of the contamination or who is seeking the creation of the Restricted Zone including the owner's name and property address.
 - c. State what the effects of the Restricted Zone will be, i.e. how use of the groundwater will be restricted.
 - d. Identify the Person who can be contacted at the County, the MDEQ or USEPA, and the Applicant for more information.

- e. A description of the groundwater plume and a brief description of the nature of the contamination, and
- f. Any other information reasonably requested by the County Administrator.

SECTION 21b.03: In addition to the formal application provided for in Section 18b.01-18b.02, the Applicant shall also submit a written statement to the County Administrator in which Applicant agrees to pay all costs incurred by the County in the establishment of the proposed Restricted Zone, including without limitation, reimbursement for staff time, the fees of environmental consultants and legal counsel, the cost of publication, any per them or other amounts paid to public officials for attending any special meetings, etc... This statement shall also consent to the placement of a lien on the Applicant's premises if the amounts due under this Section are not timely paid (i.e. paid within 30 days of the issuance by the County of an invoice). That statement shall be in a form acceptable to the County's legal counsel and shall be in a form so as to be recordable in the records of the Kalamazoo County Register of Deeds.

SECTION 21b.04: Along with the Application, the Applicant shall pay a deposit, or create an escrow account, in an amount equal to the costs the County Administrator estimates the County will incur in establishing the Restricted Zone, including without limitation, reimbursement for staff time, the fees of environmental consultants and legal counsel, the cost of publication, any per them or other amounts paid to public officials for attending any special meetings, etc... The deposit shall not bear interest and the County may use the funds pay for costs as they are incurred. If the Applicant elects to establish an escrow account, the Applicant shall continuously maintain a minimum balance of \$500.00 in that escrow account. If the Applicant fails to maintain the escrow as required by this provision, the County may, but is not required to, discontinue its processing of the request to establish a Restricted Zone and the County is authorized to file a lien against the premises of the Applicant.

SECTION 21b.05: Once the County Administrator or his or her designee determines that the application is complete, the County Administrator shall present the completed Application to the Board of County Commissioners at a regular or special meeting of the Board and request that the Board set a time, date, and place to hold a public hearing on the application.

SECTION 21b.06: After the Board of Commissioners sets the date for the public hearing, the Applicant shall send a written notice of the hearing, by first class mail, to all persons having an interest as owner, tenant, easement holder, or mortgagee of record in any of the Affected Premises. The notice shall include a brief statement regarding the application that fairly informs the recipients of the Restricted Zone's main features and the potential impacts the Restricted Zone may have on the recipients' in general. The Applicant shall mail the Notice at least ten (10) days prior to the hearing. The Applicant shall also publish the Notice in a newspaper of general circulation within the County at least seven (7) days before the hearing. The Applicant shall also mail the Notice to the NMEQ and USEPA representative, as appropriate, who issued the approval of the proposed Restricted Zone and use regulations; and to the MDEQ District Supervisor of the regulatory program with jurisdiction over the contaminated site. For each Notice required under this Section, the Applicant shall file one copy of each Notice, an affidavit of publication for each Notice, an affidavit of publication for each Notice and an affidavit of mailing for each Notice, with the County Administrator prior to the hearing.

SECTION 21b.07: If, after the public hearing, the Board of Commissioners determines that there is a need to establish a new Restricted Zone, the Board of Commissioners shall amend this Code to establish the new Restricted Zone. The County Clerk shall publish a Notice of the amendment to this Code in the same manner required by law for Ordinance amendments.

SECTION 21b.08: The Applicant shall notify all owners and occupants of real property within the newly established Restricted Zone of the need to close and abandon wells located on property located within the Restricted Zone. The Applicant shall also inform the owners and occupants of real property within the newly established Restricted Zone of who will be financially responsible for closing and abandoning the wells.

CHAPTER 22b–23b: RESERVED FOR FUTURE USE

CHAPTER 24b: EFFECT OF RESTRICTED ZONES, WELLS AND GROUNDWATER USE PROHIBITED

Except as provided in Chapter 22b of this Code, no person shall install or utilize, or allow, permit, or provide for the installation or utilization of a well in any Restricted Zone. Except as provided in Section 22b of this Code, no person shall use any groundwater from any well located within a Restricted Zone.

CHAPTER 25b: EXCEPTIONS TO PROHIBITION

A Person may install, utilize, allow, permit, or provide for the installation or utilization of, a well within a Restricted Zone identified in this Code, if one of the following exceptions applies and the individual complies with the requirements set forth in this Section:

SECTION 25b.01: EXISTING WELLS - WATER SERVICE UNAVAILABLE

The owners and/or occupants of property within a Restricted Zone that contained a working well(s) on the date that the County established the Restricted Zone under this Code, may continue to use the well(s) if it is safe and suitable for use and municipal water service is unavailable to the property.

- i. For purposes of this Subsection, a well will be considered safe and suitable for use if the Person wishing to use the well provides the County with a written annual certification, or more frequent certification if required by the County, that the well is safe and suitable. A Person wishing to use the well must secure certification, at his/her own expense, from a MDEQ-approved laboratory, that the well produces water that is within maximum contaminant levels as defined in Part 201. The Person wishing to use the well must arrange for the testing laboratory to promptly submit the results of the test to the MDEQ or the Kalamazoo County Human Services Department for review and determination that the well is safe and suitable for use and that use of the well does not exacerbate the contamination.
- ii. For purposes of Article IIIb, municipal water service is unavailable only if it is technically unreasonable, from an engineering perspective, or otherwise impractical to supply the premises with municipal water. No split or conveyance of property shall be effective to render municipal water unavailable.

SECTION 25b.02: PROOF OF NO INFLUENCE

After the establishment of a Restricted Zone under this Code, the Kalamazoo County Human Services Department shall not issue a well permit for the installation of any water supply well within the Restricted Zone unless all of the following conditions are present:

- i. Municipal water service is unavailable to the property; and,
- ii. The MDEQ determines, in writing, that the contaminated groundwater shall not influence or potentially influence the use of the well; and,
- iii. The MDEQ determines, in writing, that future migration of contaminated groundwater shall not affect the use of the well. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to install the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to install the well with all technical and practical information, in the Applicant's possession, that may reasonably aid the person in providing necessary information to the MDEQ; and,
- iv. The individual wanting to install the water supply well submits copies of the MDEQ's determinations to the County- and,
- v. The County Administrator, upon review of the written determinations of the MDEQ, and in consultation with the County Human Services Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the installation and use of the water supply well; and,
- vi. Any water supply well approved under this Subsection must be installed using well construction techniques (e.g. double casing) that will maintain the integrity of the aquifer to be used as the supply source and prevent migration of contaminants to the aquifer to be used as the supply source. The individual must also provide the -County Administrator with a written description of the proposed well construction techniques for review and approval prior to the installation of the well; and
- vii. After the well is installed, the owner of the property on which the well is located, shall comply with the annually sampling and testing protocol set forth in Section 22a.01 of this Code; and,
- viii. If the sampling and testing protocol indicate that the groundwater contaminants are influencing the water supply well, the owner of the property shall immediately abandon and plug the well.

SECTION 25b.03: GROUNDWATER MONITORING

A well within a Restricted Zone may be used for groundwater monitoring and/or remediation as part of a MDEQ or USEPA approved response activity.

SECTION 25b.04: CONSTRUCTION DE-WATERING

A well within a Restricted Zone may be used for construction de-watering, if the individual(s) installing and using the well complies with the following conditions:

- i. Use of the de-watering well will not expose an uncontaminated aquifer to contaminated groundwater; result in the Possible cross-contamination between saturated zones, or exacerbate the contamination; and,
- ii. The water generated by that activity is properly handled and disposed of in compliance with all applicable laws, rules, regulations, permit and licensing requirements, orders and directives of any governmental entity or agency of competent jurisdiction.

Any exacerbation of the contamination caused by the use of the well under this exception shall be the responsibility of the person operating the dewatering well, as provided in Part 201 of the Natural Resources and Environmental Protection Act, MCL 324.20101 to 324.20142.

SECTION 25b.05: EXISTING, SPECIFIC NON-CONTACT WELLS

For purposes of the Article IIIb of this Code, a “non-contact” water supply system means a water supply system designed and utilized so as to prohibit the use of the water within the system for human ingestion.

After the establishment of a Restricted Zone, an existing water supply well within the Restricted Zone shall not be used for non-contact heating, cooling or processing activities unless all of the following conditions are present:

- i. The MDEQ determines, in writing, that the use of a well for non-contact heating, cooling or processing activities will not cause the future migration of contaminated groundwater; and,
- ii. The Person requesting the continued utilization or installation of the well submits a copy of the MDEQ’s written determination to the County Administrator; and,
- iii. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the County Human Services Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued utilization, or installation, and use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to continue to utilize the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to continue to utilize the well with all technical and practical information, in the Applicant’s possession, that may reasonably aid the person in providing necessary information to the MDEQ.

SECTION 25b.06: NEW, SPECIFIC NON-CONTACT WELLS

After the establishment of a Restricted Zone under this Code, the Kalamazoo County Human Services Department an individual shall not install a new well to be used for noncontact heating, cooling or processing activities within a Restricted Zone unless all of the following conditions are present:

- i. The NMEQ determines, in writing, that the use of a well for noncontact heating, cooling or processing activities will not cause the future migration of contaminated groundwater; and,
- ii. The Person requesting the installation of the well submits a copy of the MDEQ's written determination to the County Administrator; and,
- iii. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the County Human Services Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued utilization, or installation, and use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting the installation of the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting the installation of the well with all technical and practical information, in the Applicant's possession, that may reasonably aid the person in providing necessary information to the MDEQ.

SECTION 25b.07: SPECIFIC NON-CONTACT IRRIGATION WELLS

After the establishment of a Restricted Zone under this Code, no new well shall be installed, within the Restricted Zone, for use as an irrigation well. An individual may continue to utilize an existing well for non-contact irrigation within a Restricted Zone if all of the following conditions are present:

- i. The MDEQ determines, in writing, that the use of a well for non-contact irrigation will not cause the future migration of contaminated groundwater; and,
- ii. The Person requesting the continued utilization or installation of the well submits a copy of the MDEQ's written determination to the County Administrator; and,
- iii. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the County Human Services Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to continue to utilize the well shall be responsible for the costs of providing the MDEQ with the information

the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to continue to utilize the well with all technical and practical information, in the Applicant's possession, that may reasonably aid the person in providing necessary information to the MDEQ.

Any exacerbation of the contamination caused by the use of the well under this exception shall be the responsibility of the person operating the dewatering well, as provided in Part 201 of the Natural Resources and Environmental Protection Act MCL 324.20101 to 324.20142.

SECTION 25b.08: PUBLIC EMERGENCIES

A well may be used within a Restricted Zone in the event of a public emergency.

CHAPTER 26b: WATER SOURCES FOR HUMAN CONSUMPTION

Except as provided in Chapter 22b of this Code, the water supply delivered for human consumption to any property located within a Restricted Zone shall be delivered only from a Municipal water system or by the use of bottled water delivered and purchased in containers under conditions approved by the State of Michigan. For the purposes of this subsection, the term "Human Consumption" means use in food or drink intended for human ingestion, use in food preparation or food service, use in the interior of a dwelling or dwelling unit for household purposes, and use in any building for personal washing.

CHAPTER 27b: NON-CONFORMING WELLS

Any existing well, the use of which is prohibited by Chapter 21a, shall be plugged or abandoned in conformance with all applicable laws, rules, regulations, permit and license requirements, orders and directives of any governmental entity or agency of competent jurisdiction, or, in conformance with the protocol developed consistent with the American Standards for Testing and Materials standard #D5299-92.

CHAPTER 28b: WELLS AFFECTING CONTAMINATED GROUNDWATER

Except as provided in Chapter 22b, no well may be used or installed at any place in the County if the use of the well will have the effect of causing the migration of contaminated groundwater or a contaminated groundwater plume to previously unimpacted groundwater, or adversely impacting any groundwater treatment system, unless the well is part of a MDEQ or USEPA approved groundwater monitoring or remediation system.

CHAPTER 29b: VIOLATIONS

Any violation or suspected violation of the provisions of Article IIIb of this Code shall be addressed under Article VII: Declaratory Rulings and Hearing Procedures and Article VI: Criminal Penalties, of this Code.

Section 2. The County Clerk/Register is hereby directed to publish a summary copy of the Amendment to the Kalamazoo County Sanitary Code in the Kalamazoo Gazette promptly after passage of this Amendment.

Section 3. Upon passage, this Amendment shall become effective November 6, 2003.

Timothy A. Snow
County Clerk/Register

ARTICLE IV: HOUSING REGULATIONS

CHAPTER 16: PURPOSE

This Article of the Code establishes the minimum standards governing the condition and maintenance of dwellings; establishes the minimum standards governing supplied utilities and facilities and other physical things and conditions essential to making dwellings safe, sanitary and fit for human habitation; establishes the minimum standards governing the condition of dwellings offered for rent; fixes certain responsibilities and duties upon owners and occupants of dwellings; authorizes the Health Officer to inspect dwellings; and authorizes the Health Officer to condemn dwellings which are unfit for human habitation.

CHAPTER 17: INSPECTION OF DWELLINGS, DWELLING UNITS AND PREMISES

SECTION 17.01: INSPECTION

In order to safeguard the health and safety of the occupants of dwellings, and of the general public, the Health Officer shall have the authority to inspect and determine the condition of dwellings, dwelling units, and premises located within the County of Kalamazoo. The Health Officer may enter, examine, and survey, at all reasonable times, all dwellings, dwelling units and premises. The owner or occupant of every dwelling, dwelling unit, or the person in charge thereof, shall give the Health Officer free access to such dwelling, dwelling unit and its premises, at all reasonable times, for the purpose of such inspection, examination, and survey. Every occupant of a dwelling or a dwelling unit shall give the owner thereof, or his agent or employee, access to any such dwelling, dwelling unit, or premises, at all reasonable times for the purpose of making repairs or alterations which are necessary to effect compliance with the provisions of this ordinance or with any lawful order issued pursuant to the provisions of this ordinance.

CHAPTER 18: MINIMUM STANDARDS

SECTION 18.01: BASIC EQUIPMENT AND FACILITIES

No person shall occupy, or allow the occupancy of, any dwelling or dwelling unit, for the purpose of living, sleeping, cooking, or eating therein, unless the dwelling or dwelling unit complies with the following requirements:

- a. Every dwelling unit shall have an adequate sewage disposal system and an adequate water supply system, which complies with the design, construction and operation provisions contained in this Code.
- b. Every dwelling unit shall contain a kitchen sink in good working condition and properly connected to an adequate water supply system and an adequate sewage disposal system.
- c. Every dwelling or dwelling unit shall contain at least one flush water closet, a lavatory and a tub or shower, in good working condition, which provide privacy to the user and which are properly connected to an adequate water supply system and an adequate sewage disposal system.

- d. Every dwelling unit shall have adequate garbage and rubbish disposal facilities or garbage storage containers. The Health Officer shall approve of the type and location of the facilities or storage containers.
- e. Every dwelling unit shall have at least two (2) remote means of safe, unobstructed, egress from the dwelling unit to an open space at ground level.

SECTION 18.02: LIGHT, VENTILATION AND HEATING

No person shall occupy, or allow the occupancy of, any dwelling or dwelling unit unless the dwelling or dwelling unit complies with the following requirements:

- a. Every habitable room shall have at least one window or skylight facing directly to the outdoors. The minimum total window area, measured between stops, for every habitable room shall be 10 per cent (10%) of the floor area of the room.
- b. Whenever walls, or other portions of the structure which can obstruct light, are within 3 feet of a room's window and extend to a level above that of the ceiling of the room, the obstructed window shall not be deemed to face directly to the outdoors and shall not be included as contributing to the required minimum window area.
- c. Whenever the only window in a room is a skylight-type window in the top of such room, the total window area of such skylight shall equal at least 15 per cent (15%) of the total floor area of the room.
- d. Every habitable room shall have at least one easily opened window, skylight or similar device, which adequately ventilates the room.
- e. Unless the Health Officer approves of an alternate ventilation device, in writing, every habitable room shall have an openable window area equal to at least 45 per cent (45%) of the minimum window area size or minimum skylight-type window size, as required in paragraphs a and c of this section.
- f. Every habitable room shall contain at least two (2) separate floor or wall type convenience electrical outlets; or one floor or wall electrical outlet and one supplied ceiling light fixture.
- g. Every basement or cellar window used, or intended to be used, for ventilation; and any other basement or cellar opening capable of allowing the entry of rodents; shall be properly screened or modified to prevent the entry of rodents.
- h. All habitable rooms shall have properly installed, maintained and safe heating facilities capable of providing temperatures of at least 70 Degrees Fahrenheit.

CHAPTER 19: GENERAL REQUIREMENTS RELATING TO THE SAFE AND SANITARY MAINTENANCE OF PARTS OF DWELLINGS AND DWELLING UNITS

SECTION 19.01: REQUIREMENTS

- a. No person shall occupy, or allow the occupancy of, a dwelling or dwelling unit unless the dwelling or dwelling unit meets the following requirements:
 - i. Every foundation, floor, wall, ceiling, and roof is reasonably weather tight, watertight, and rodent proof; affords the occupant privacy; and is kept in good repair.
 - ii. Every window, exterior door, and basement hatchway is reasonably weather tight, watertight, and rodent proof; and shall be kept in sound working condition and good repair.
 - iii. Every inside stair, outside stair, porch, and appurtenance thereto, is designed, constructed and maintained so as to support the load that normal use places upon the stair, porch or appurtenance and is kept in good repair.
 - iv. Every plumbing fixture, waste pipe, and water pipe is properly installed and maintained in a good sanitary working condition, free from defects, leaks, and obstructions.
 - v. The floor surface of every water closet compartment and bathroom is reasonably impervious to water and shall be designed and constructed to permit the easy cleaning and maintenance of the floor surface.
 - vi. Every supplied facility, piece of equipment, or utility required under this ordinance, is designed, constructed and installed to function safely and effectively, and is maintained in satisfactory working condition.
- b. No owner, operator or occupant of a dwelling or dwelling unit shall shut off, or discontinue, a service, facility, equipment, or utility necessary for the occupancy of the dwelling or dwelling unit except:
 - i. To permit the completion of necessary repairs or alterations; or,
 - ii. When the Health Officer orders the discontinuance during temporary emergencies; or,
 - iii. When authorized by law.
- c. No owner shall occupy, or allow the occupancy of, any vacant dwelling or dwelling unit unless it is clean, sanitary and fit for human occupancy.

CHAPTER 20: MINIMUM SPACE, USE AND LOCATION REQUIREMENTS

SECTION 20.01: REQUIREMENTS

No owner of a dwelling unit shall occupy, or allow the occupancy of, the dwelling unit unless the dwelling unit complies with the following requirements:

- a. The dwelling unit contains at least 150 square feet of floor space for the first occupant and at least another 100 square feet of floor space for every additional occupant. The dwelling unit's floor space is calculated based upon the total habitable room area in the dwelling unit.
- b. At least one-half of the floor area of every habitable room shall have a minimum ceiling height of 7 feet. If any portion of a room has a ceiling height of less than 4 feet, that portion of the room shall not be used in calculating the total floor area of the room.
- c. No basement shall be used as a dwelling unit unless:
 - i. The floors and walls are insulated against dampness and are impervious to underground and surface runoff water; and,
 - ii. The window and ventilation openings are entirely above grade and comply with the requirements for windows and ventilation openings contained in this Code; and,
 - iii. The basement complies with all other applicable requirements of this Code; and,
 - iv. Each dwelling unit in the basement shall have at least two(2) remote means of safe, unobstructed, egress from the dwelling unit to an open space at ground level; and,
 - v. All furnaces shall be segregated by one-hour fire wall material and combustion air shall be provided for same.
- d. No cellar shall be used as a habitable room or dwelling unit.

CHAPTER 21: RESPONSIBILITY OF OWNERS AND OCCUPANTS

SECTION 21.01: RESPONSIBILITY

- a. Every owner of a dwelling containing two or more dwelling units shall maintain the shared or public areas of the dwelling and premises in a clean and sanitary condition.
- b. Every occupant of a dwelling or dwelling unit shall keep that part of the dwelling, dwelling unit and premises which he/she/it occupies and controls in a clean and sanitary condition.
- c. Every occupant of a dwelling or dwelling unit shall dispose of all rubbish in a clean and sanitary manner.
- d. A person shall not permit or maintain on any premises, or any street or alley adjoining a premises, any of the following:

- i. Any noxious, decayed, or any offensive animal or vegetable matter or filth; or,
 - ii. Any unwholesome or offensive thing, or any foul matter of any description, which emits an offensive odor or which is dangerous to the public health.
- e. Every owner or occupant of a dwelling or dwelling unit shall keep it clean, and free of any accumulation of filth, rubbish, garbage, or any other offensive or insanitary material.
 - f. Every occupant of a dwelling or dwelling unit shall dispose of garbage and organic waste by placing it in a garbage disposal facility or a garbage storage container. The owner of a premise containing more than two dwelling units shall supply suitable and sufficient facilities or containers for all dwelling units located on the premises. In all other cases, the occupant of the dwelling or dwelling unit shall secure suitable and sufficient facilities or containers.
 - g. Occupants of single dwelling units shall exterminate insects, rodents, or other pests therein or on the premises. Occupants of dwelling units in a structure containing more than one dwelling unit shall exterminate insects, rodents, or other pests infesting the Occupant's unit. Notwithstanding the foregoing provisions of this Section, whenever infestation exists in two or more dwelling units in a single structure, or in the shared or public parts of any structure that contains two or more dwelling units, the owner of the structure shall exterminate the insects, rodents, or other pests.
 - h. Every occupant of a dwelling unit shall keep all plumbing fixtures therein in a clean and sanitary condition and shall exercise reasonable care in the proper use and operation thereof.
 - i. The owner of a dwelling unit shall maintain all sewer lines in good repair.

CHAPTER 22: DESIGNATION OF UNFIT DWELLINGS AND CONDEMNATION PROCEDURE

SECTION 22.01: UNFIT DWELLINGS

The Health Officer shall designate dwellings or dwelling units as unfit for human habitation and proceed to condemn and placard unfit dwellings or dwelling units (and in accordance with the provisions of this Code) if the Health Officer finds any of the following defects in the dwelling or dwelling unit:

- a. The dwelling or dwelling unit fails to provide the basic amenities essential to healthful living because it is so damaged, decayed, dilapidated, insanitary, unsafe, or vermin infested; or,
- b. The dwelling or dwelling is likely to cause sickness or disease because it is so damaged, decayed, dilapidated, insanitary, unsafe, or vermin infested; or,
- c. The dwelling or dwelling is likely to injure the health, safety, or general welfare of those living therein because it is so damaged, decayed, dilapidated, insanitary, unsafe, or vermin infested; or,

- d. The dwelling or dwelling unit fails to otherwise comply with the requirements of Article IV of this Code; or,
- e. The dwelling, because of its general condition or location, is insanitary, or poses a danger to the health or safety of the occupants or the public; or,
- f. The owner or occupant of the dwelling fails to comply with the orders of the Health Officer issued under the provisions of this Code or rules pursuant thereto.

**SECTION 22.02: PLACARDING OF UNFIT DWELLINGS OR DWELLING UNITS;
VACATING PREMISES**

- a. If the Health Officer determines that a dwelling or dwelling unit is unfit for human habitation, the Health Officer shall condemn the dwelling or dwelling unit; post a Placard(s) at a conspicuous place(s) on the dwelling or dwelling unit which notifies the public that the Health Officer has condemned the dwelling or dwelling unit as unfit for human habitation; and order the occupants of the dwelling or dwelling unit to vacate the premise within a reasonable time.
- b. No person shall reoccupy any dwelling or dwelling unit which the Health Officer has condemned and placarded as unfit for human habitation until the Health Officer issues a written order determining that the dwelling or dwelling unit is fit for human habitation; that the owner or occupant has corrected the violations or conditions which caused the condemnation of the dwelling or dwelling unit; that the dwelling or dwelling unit complies with all other applicable provisions of this Code; and directs the removal of the Placard(s).
- c. No person shall deface or remove a placard from any dwelling or dwelling unit that the Health Officer has condemned and placarded unless the Health Officer or a court of competent jurisdiction directs the removal of the Placard(s).

SECTION 22.03: EMERGENCY ACTION

Whenever the Health Officer finds that an emergency exists which requires immediate action to protect the public health, the Health Officer may, without notice or hearing, issue an Emergency Order which recites the existence of the emergency and directs the actions which a dwelling or dwelling unit's owner or occupant must take to address the emergency. Notwithstanding any other provision of this Code, an Emergency Order shall take effect immediately. Any person who fails, neglects or refuses to comply with the provisions of an Emergency Order is in violation of this Code and subject to the penalties described in Article VIII of this Code.

ARTICLE V: NONCOMMUNITY WATER SUPPLY ENFORCEMENT POLICY

CHAPTER 23: PURPOSE

This Article applies to all Non-Community Water Supplies as defined in Act 399 of the Public Acts of 1976, as amended, and seeks to assure compliance with the construction and sampling requirements promulgated under that Act.

CHAPTER 24: GENERAL PROVISIONS

SECTION 24.01: AUTHORITY

Act 399 of the Public Acts of 1976, as amended, gives the Michigan Department of Environmental Quality authority to designate an authorized agent or representative to administer the Act and the Rules promulgated under the Act. Pursuant to this authority, the Michigan Department of Environmental Quality has designated the Kalamazoo County Human Services Department and the Health Officer as its authorized agents and representatives.

SECTION 24.02: POLICY

The Health Officer and the Kalamazoo County Human Services Department shall enforce the provisions of the Non-Community Water Supplies Act 399 of the Public Acts of 1976, as amended, and Act 306 of the Public Acts of 1969, as amended, consistent with the procedures established by the State of Michigan Department of Environmental Quality. The Human Services Department and/or the Health Officer shall initiate enforcement activities when one or more of the following deficiencies occur:

- a. A monitoring violation is detected.
- b. A construction deficiency exists in a new on-site water supply system.
- c. There is an improperly located new on-site water supply system.
- d. There is a failure to comply with the Health Officer's order to correct an existing well construction or location deficiency.

SECTION 24.03: PROCEDURE

- a. When one or more of the deficiencies listed in Section 24.02 of this Code takes place, the Health Officer and/or the Human Services Department shall:
 - i. Mail a letter of noncompliance to the owner of the Noncommunity Water Supply System. This letter shall describe why the Noncommunity Water Supply System is noncompliant and provide the owner with a specific schedule for bringing the Noncommunity Water Supply System into compliance with this Code (Correction Schedule). The Health Officer and/or Human Services Department may consider the severity of the violation when preparing the Correction Schedule.

- ii. Confirm that the owner has complied with an order and Correction Schedule. The Health Officer and/or the Human Services Department may confirm that the owner has complied with an order and Correction Schedule, by reinspecting the system and/or receiving written documentation that conclusively demonstrates that the owner took the necessary corrective action.
 - iii. If the owner of a Noncommunity Water Supply fails to comply with the Correction Schedule and correct the violations as directed, the Health Officer may initiate an informal hearing pursuant to the procedure set forth in Section VII of this Code.
- b. An owner of a Type II Noncommunity Water Supply System, or the owner's designated representative, who disagrees with a Notice of Deficiency, an Order to take Corrective Action, a Correction Schedule or the Health Officer's interpretation of the provisions of this Chapter, may request an informal hearing pursuant to the procedure set forth in Section VII of this Code.

ARTICLE VI: FOOD PROTECTION PROGRAM; INSPECTION AND ENFORCEMENT PROCEDURES

CHAPTER 25: PURPOSE

This Section of the Code concerns the administration and enforcement of Act 92 of the Public Acts of 2000, Michigan's Food Law 2000, and Sections 2441 and 2442 of the State of Michigan Public Health Code.

SECTION 25.01: INSPECTION SCHEDULES

The Health Officer and/or the Human Services Department shall inspect each food service establishment within Kalamazoo County in compliance with requirements of Act 92, Public Acts of 2000.

SECTION 25.02: COMPLIANCE AT THE TIME OF AN INSPECTION (ROUTINE OR FOLLOW-UP)

- a. If a food service establishment is in compliance with the provisions of this Code at the time of a Routine Inspection, the Health Officer and/or the Human Services Department shall continue to conduct Routine Inspections of the establishment according to the requirements of Act 92, Public Acts of 2000.
- b. If an Inspection pursuant to Chapter 25.01 shows that:
 - i. No Imminent or Substantial Hazards exist at the food establishment; and,
 - ii. There are no critical item violations present at the food establishment, or they are corrected immediately if present or according to an agreed upon correction schedule, and any critical item violation found is not a chronic violation; and,
 - iii. If unsanitary conditions are present, they are not substantial (less than 25 individual occurrences of any combination of non-critical item violations); they are corrected according to an agreed upon schedule(s); and they are not a chronic violation.

The Human Services Department shall continue to conduct Routine Inspections of the establishment according to the requirements of Act 92, Public Acts of 2000.

SECTION 25.03: NON-COMPLIANCE AT THE TIME OF INSPECTION

- a. If an inspection shows that a food service establishment is in violation of the provisions of this Code and the violation(s) constitute an Imminent or Substantial Hazard to the public's health, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.5. of this Code; and Section 2113 of Act 92 of the Public Acts of 2000.
- b. If an inspection shows the presence of critical item violation(s) and the critical item violation(s) are not corrected prior to the conclusion of the inspection or according to an agreed upon correction schedule, or if the violation(s) also constitute a chronic violation(s), the Health Officer and/or the Human Services Department shall:

- i. Take action as provided in Section 25.04.2 of this Code unless the violation(s) were the subject of a previous compliance agreement/correction schedule between the owner/operator and the Health Officer and/or the Human Services Department, or the violation(s) were the subject of an Informal Hearing; or,
 - ii. If the violation(s) were the subject of a previous compliance agreement or correction schedule between the owner/operator and the Health Officer and/or the Human Services Department; the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.3 of this Code; or,
 - iii. If the violation(s) were the subject of an Informal Hearing, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.4 of this Code and Section 4125 of the Public Acts of 2000.
- c. If an inspection shows that the occurrence of unsanitary conditions at the food service establishment is equal to, or greater than 25, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.2 of this Code and Section 4125 of Act 92 of the Public Acts of 2000.
 - d. If an inspection shows that insanitary conditions at the food service establishment constitute chronic or continuous violations of this Code, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.2 of this Code and Sections 4125 and 3117 of Act 92 of the Public Acts of 2000.
 - e. If an inspection shows that a person is operating a food service establishment without a license, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.6 of this Code and Sections 2117 and 4101 of Act 92 of the Public Acts of 2000.
 - f. If any person interferes with an agent of the Health Officer in the performance of his/her duties, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.3 of this Code and Sections 4125 and 3117 of Act 92 of the Public Acts of 2000.
 - g. If any person constructs, or begins construction of, a new food service establishment without an approved plan, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.9 of this Code and Section 3117 of Act 92 of the Public Acts of 2000.
 - h. If any person remodels an existing food service establishment without an approved plan, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.9 of this Code and Section 3117 of Act 92 of the Public Acts of 2000.
 - i. If any person operates a Temporary Food Service Establishment without a license, the Health Officer and/or the Human Services Department shall take action as provided in Section 25.04.6 of this Code and Section 3117 of Act 92 of the Public Acts of 2000.
 - j. If the health Officer and/or the Human Services Department determines that a food source is

unapproved, adulterated or contaminated, the Health Officer and/or the Human Services Department shall issue an Order to hold, test or destroy a food product in addition to any action which the Health Officer and/or the Human Services Department may take under Section 25.04.10 of this Code and Section 2105 of Act 92 of the Public Acts of 2000.

- k. After a proper inspection, and in accordance with Section 25.04.8 of this Code and Section 2121 of Act 92 of the Public Acts of 2000., Health Officer and/or the Human Services Department shall impose License limitations, limiting the extent of food preparation or the menu items, which a food service establishment may prepare and serve. If the Health Officer and/or the Human Services Department imposes license limitations, the establishment's owner is entitled to an informal hearing.

SECTION 25.04: ENFORCEMENT STEPS

When enforcing the provisions of this Article of the Code, and specifically in conjunction with Section 25.03, the Health Officer and/or the Human Services Department shall utilize the following steps or procedures:

25.04.1 Conduct subsequent inspection(s) to determine compliance with a mandated or agreed upon correction schedule. The correction schedule may occur as a result of a routine inspection, office conference, informal hearing, or formal hearing. If the establishment exhibits non-compliance with such orders or agreements, the Health Officer and/or the Human Services Department shall proceed to the next appropriate enforcement step (for example, a Formal Hearing, if the follow-up inspection is the result of a failure to comply with a correction schedule established at an Informal Hearing).

25.04.2 Office conference. If an inspection reveals that a food service establishment is not in compliance with the provisions of this Code, the Health Officer and/or the Human Services Department shall hold an Office Conference at the Human Services Department with the owner or designated agent of the food service establishment. If the Office Conference results in an agreed upon schedule of compliance, the Health Officer and/or the Human Services Department shall reduce the schedule to writing and conduct necessary inspections. If the Office Conference does not result in an agreed upon schedule of compliance, the Health Officer and/or the Human Services Department shall institute an Informal Hearing pursuant to the provisions of Article VII of this Code.

25.04.3 Informal Hearing. An informal hearing is held for the purpose of determining whether there is sufficient evidence to mandate a compliance schedule for certain violations. An Informal Hearing is to be conducted in accordance with the procedures set forth in Article VII of this Code and the Health Officer and/or the Human Services Department may direct that an Informal Hearing take place for any or all of the following reasons:

- i. A person fails to comply with an order of the Health Officer and/or the Human Services Department; or,
- ii. A person interferes with an agent of the Health Officer and/or the Human Services Department in the performance of his/her official duties; or,
- iii. A person fails to correct a critical item violation(s) as agreed to in a Compliance Schedule; or,

- iv. A person fails to correct a food service establishment's chronic, repeated or continuous critical item(s) violations.
- v. A food service establishment licensee requests an Informal Hearing in writing. A Licensee's written request for an Informal Hearing must contain a description of the reason for, or subject of, the Informal Hearing.

25.04.4 Formal Hearing. A Formal Hearing is to be conducted in accordance with the procedures set forth in Article VII of this Code and is held for the purpose of:

- i. Determining whether a food service license should be suspended or revoked; or,
- ii. Determining whether to reverse or end an order from the Health Officer to suspend food service; or,
- iii. A food service establishment licensee requests a Formal Hearing in writing. A Licensee's written request for a Formal Hearing must contain a description of the reason for, or subject of, the Formal Hearing.

25.04.5 If the Health Officer and/or the Human Services Department determines that conditions in a food service establishment constitute an imminent health hazard, the Health Officer and/or the Human Services Department shall Order the food service establishment to immediately cease all food service operations until the hazard is removed or corrected. The owner and/or licensee of a food service establishment must immediately comply with the Order to cease food service operations. The owner and/or licensee may request that the Health Officer or the Human Services Department conduct a Formal Hearing to determine whether the Order to cease food service operations should be reversed or terminated, and the food service operation shall remain closed to the public pending the outcome of the Formal Hearing.

25.04.6 If the Health Officer and/or the Human Services Department determines that a food service establishment is operating without a valid food service license, the Health Officer and/or the Human Services Department shall order the owner and/or operator of the food service establishment to immediately cease all food preparation and service. No food service preparation or operations may resume until the owner and/or operator fully complies with all of the food service licensing requirements contained in this Code.

25.04.7 Late fees. The Human Services Department shall assess fees for late food service establishment license applications in accordance with the fee schedule promulgated by the Kalamazoo County Board of Commissioners under Article I, Chapter 2, Section 2.06, of this Code.

25.04.8 License Limitations. The Health Officer and/or the Human Services Department may place restrictions on a food service establishment license, which limits the preparation of food if the Health Officer and/or the Human Services Department determine that such limitations are necessary to protect the public's health. Unless the owner/licensee voluntarily agrees to the implementation of the limitations at the time of a plan review, the Health Officer and/or the Human Services Department must offer the owner/licensee the opportunity to have the necessity of the limitations addressed in an Informal Hearing.

25.04.9 If the Health Officer and/or the Human Services Department determines that any person is constructing or remodeling a food service establishment in violation of the provisions of this Code, the Health Officer and/or the Human Services Department shall order the immediate cessation of the construction, alterations, conversions, or remodeling until the owner/licensee submits appropriate and acceptable to plans and specifications to the Health Officer and/or the Human Services Department.

25.04.10 If the Health Officer and/or the Human Services Department determines that a food product constitutes a potential threat to public health, the Health Officer and/or the Human Services Department shall Order the person(s) in control of such food to hold, test, or destroy the food product. Failure to comply with an Order to hold, test or destroy a food product will result in the creation of an imminent health hazard.

Any violation or suspected violation of the provisions of Article IIIb of this Code shall be addressed under Article VII: Declaratory Rulings and hearing Procedures and Article VI: Criminal Penalties, of this Code.

Section 2. The County Clerk/Register is hereby directed to publish a summary copy of the Amendment to the Kalamazoo County Sanitary Code in the Kalamazoo Gazette promptly after passage of this Amendment.

Section 3. Upon passage, this Amendment shall become effective November 6, 2003.


Timothy A. Snow
County Clerk/Register

ARTICLE VII: DECLARATORY RULING AND HEARING PROCEDURES

CHAPTER 26: PURPOSE

This Article of the Code sets out the type of declaratory ruling and hearing procedures which Kalamazoo County will use to interpret and enforce the provisions of this Code; to obtain the voluntary correction of Code violations; and to provide a review of actions taken by the Health Officer and/or the Human Services Department in administering and enforcing this Code. The Hearing procedures contained in this Article are also intended to comply with the Administrative Procedures Act.

CHAPTER 27: DEFINITIONS

SECTION 27.01: FORMAL HEARING

A Formal Hearing is used to obtain compliance with the provisions of this Code; to correct a violation of this Code and/or as an appellate review of the decision from an Informal Hearing.

SECTION 27.02: FORMAL HEARING BOARD

The Formal Hearing Board shall consist of a total of three (3) people. One (1) member of the Kalamazoo County Board of Commissioners; the Director of the Kalamazoo County Human Services Department or his/her designated representative, who shall also serve as the Chairperson of the Hearing Board; and the County Clerk or his/her designated representative shall serve on the Formal Hearing Board.

SECTION 27.03: INFORMAL HEARING

An informal hearing is held to determine if a person is in compliance with this Code and any other applicable laws; create schedules for correcting violations of this Code; and to review license requirements/limitations necessary to insure compliance with state mandated laws and County Regulations contained in this Code.

SECTION 27.04: INFORMAL HEARING OFFICER

The Director of the Environmental Health & Laboratory Services Bureau or his/her designated representative shall serve as the Informal Hearing Officer.

SECTION 27.05: RESPONDENT

The Respondent is the individual who is alleged to have violated a provision of this Code and has received a Notice to appear at either an Informal Hearing or a Formal Hearing. A person who initiates an Informal Hearing or a Formal Hearing for purposes including, but not limited to, the review of a decision from an Informal hearing, the review of a denial of a variation application, or the review of a declaratory ruling, shall also be identified as the Respondent.

CHAPTER 28: DECLARATORY RULINGS

SECTION 28.01: DECLARATORY RULINGS; PURPOSE

On request of an interested person, the Health Officer or the Human Services Department may issue a Declaratory Ruling concerning the applicability of the provisions of this Code to an actual state of facts.

SECTION 28.02: DECLARATORY RULINGS; PROCEDURE

- a. A person requesting the issuance of a Declaratory Ruling must submit the request, in writing, to the Health Officer or Human Services Department. The submission must sufficiently identify the facts forming the basis for the request for a Declaratory Ruling; the Section(s) of the Code which apply to the factual situation; and any argument or authority which the applicant wishes the Health Officer or Human Services Department to consider when issuing a Declaratory Ruling.
- b. Within thirty (30) days of receiving a written request to issue a Declaratory Ruling, the Health Officer or Human Services Department shall deny, in writing, the request to issue a Declaratory Ruling; issue a written Declaratory Ruling; or send a written request to the application which describes what additional information the Health Officer or Human Services Department needs to render a decision on the application for the issuance of a Declaratory Ruling.

SECTION 28.03: DECLARATORY RULINGS; BINDING EFFECT

A written Declaratory Ruling issued by the Health Officer or Human Services Department is binding upon the Health Officer and Human Services Department, and the person requesting the Declaratory Ruling, unless:

- a. A Court of competent jurisdiction alters or sets aside the Declaratory Ruling; or,
- b. The Health Officer or Human Services Department alters or sets aside the Declaratory Ruling, but such action by the Health Officer or Human Services Department shall only have a prospective effect and no retroactive effect.

SECTION 28.04: DECLARATORY RULINGS; APPEAL

An interested person who disagrees with a written Declaratory Ruling issued by the Health Officer or Human Services Department may have the Declaratory Ruling reviewed at an Informal hearing held in accordance with the provisions of Chapter 29 of this Article.

CHAPTER 29: INFORMAL HEARINGS

SECTION 29.01: INFORMAL HEARING; NOTIFICATION

- a. The Health Officer and/or Human Services Department shall provide all parties to an Informal Hearing with reasonable notice of the Hearing and the written notice shall include:

- i. A statement of the date, hour, place and nature of the Hearing. Unless otherwise specified in the Notice, the Hearing shall take place at the principal offices of the Environmental Health and Laboratory Services Bureau.
- ii. A statement of the legal authority and jurisdiction under which the hearing is to be held.
- iii. A reference to the particular section(s) of the code, which will be addressed at the hearing.
- iv. A short, plain and detailed statement of the matters or violations asserted by the Health Officer and/or the Human Services Department. If the Health Officer and/or the Human Services Department cannot provide a detailed statement at the time the first notice is sent to the Respondent, the Health Officer and/or the Human Services Department shall provide a general statement of the issues involved. If the Health Officer and/or Human Services Department initially provide a general statement, it shall provide the Respondent with a detailed statement as soon as practical.
- v. A statement that the Respondent may request an adjournment of the Informal hearing date if the Respondent submits a written request for an adjournment to the Health Officer and/or the Human Services Department at least 48 hours prior to the scheduled Hearing. The Health Officer and/or the Human Services Department shall respond to the adjournment request prior to the scheduled hearing and if they grant the adjournment request they shall provide all parties involved in the Hearing with a written notice of adjournment that contains the new date, and time, of the Hearing.

**SECTION 29.02: INFORMAL HEARING; RESPONSE TO NOTICE OF HEARING;
EVIDENCE; ATTORNEYS**

- a. A respondent who receives a Notice of Informal Hearing may, but is not required to, file a written answer to the Notice with the Health Officer and/or the Human Services Department at any time prior to the completion of the Informal Hearing.
- b. All parties involved in the Informal Hearing shall have the right to present oral and written arguments on issues of law and policy during the Informal Hearing.
- c. All parties involved in the Informal Hearing shall have the right to present evidence and argument on issues of fact during the Informal Hearing.
- d. A party shall have the right to cross-examine a witness, including the author of any document offered into evidence, which was prepared by, on behalf of, or for the use of the Health Officer and/or the Human Services Department.
- e. The Hearing Officer shall, as far as practicable, require the parties to comply with the Rules of Evidence which apply in non-jury civil cases in a Circuit Court, but the hearing Officer may also admit and give probative effect to evidence which does not comply with the Rules of Evidence if it is a type commonly relied upon reasonably prudent persons of the conduct of their affairs. The Hearing Officer may exclude irrelevant, immaterial or unduly repetitious evidence. The Hearing Officer shall give effect to legally recognized privileges such as

Attorney-Client, Physician-Patient, Priest-Penitent, etc.

- f. All parties may, but are not required to, have an attorney represent their interests at an Informal hearing.

SECTION 29.03: INFORMAL HEARING; FORMAT AND PROCEEDINGS; BURDEN OF PROOF

The Informal hearing shall proceed, as much as practicable, according to the following sequence of events:

- a. The Informal Hearing Officer shall call the proceeding to order and provide the parties with a brief summary of information concerning the Informal Hearing. This statement can be oral or written and shall include:
 - i. The date, time and reason for the Informal Hearing.
 - ii. An introduction of those present, including their names, titles and the agency or person they represent.
 - iii. A description of the Informal Hearing format and that the Hearing will be recorded.
 - iv. An acknowledgment that the Hearing Officer has either received, or has not received, any written statements or responses from the Respondent prior to the start of the Informal Hearing.
- b. After the Hearing Officer completes all introductory remarks, the staff of the Environmental Health and Laboratory Services Bureau shall:
 - i. Present an overview/introductory statement which briefly describes the reason(s) why the Health Officer and/or Human Services Department has directed the holding of the Informal Hearing; the provision(s) of the Code or Compliance Schedule which the Respondent has alleged violated; and the evidence the staff intends to introduce during the Informal Hearing.
 - ii. After the staff completes its introductory statement, the Respondent may, but is not required to, make a statement in which the Respondent states his/her position and what evidence the Respondent intends to introduce during the Informal Hearing.
 - iii. The staff then shall present its evidence, including the testimony of witnesses, to the Informal Hearing Officer.
 - iv. After the staff finishes with its presentation of evidence, the Respondent has the opportunity to make an introductory statement if he/she/it has not already made such a statement and present his/her/its evidence, including the testimony of witnesses, to the Informal Hearing Officer. The respondent is not required to present any evidence.
 - v. After the Respondent finishes his/her/its presentation of evidence, the staff shall have the opportunity to make a final argument in support of its position.

- vi. After the staff completes its final argument, the respondent shall have the opportunity to make a final argument in support of his/her/its position.
- d. The staff bears the “burden of proof” in an Informal Hearing, which requires the staff to prove its allegations against the respondent by a preponderance of the evidence (e.g. that the evidence shows that it is more likely than not that the respondent violated the provisions of this Code or a Compliance Schedule).

SECTION 29.04: INFORMAL HEARING; DECISION OF HEARING OFFICER

- a. After the conclusion of the final arguments, the Hearing Officer shall issue an oral or written decision. If the Hearing Officer issues an oral decision, he/she shall issue the decision immediately after the conclusion of final arguments and with all parties present. The Hearing Officer shall reduce an oral decision to writing and send a copy of the decision to all parties within fourteen (14) working days of the completion of final arguments.
- b. All decisions, whether oral or written, must include a brief recap of testimony and evidence presented to the Hearing Officer; the Hearing officer’s finding of facts concerning the allegations raised by the staff, Health Officer or Human Services Department; and a determination of whether the staff has met its burden of proof and showed that the violations exist or occurred; and, if the staff has proven a violation, the action the respondent must take to correct the violation. Such action can include, but is not limited to, creation of a compliance schedule.

SECTION 29.05: APPEAL

Any party who disagrees with the decision of the Informal hearing Officer may take an appeal from the decision by requesting that the decision be reviewed through a Formal Hearing. A Respondent must submit a written request for a Formal Hearing within thirty-five (35) days of the date on which the Informal Hearing Officer made his/her decision. The request for a Formal Hearing must contain a photocopy of the Informal Hearing Officer’s written decision and any fee required by the Board of Commissioners.

CHAPTER 30: FORMAL HEARINGS

SECTION 30.01: REQUESTS FOR FORMAL HEARINGS

The Health Officer and/or the Human Services Department may request a Formal Hearing if an individual fails to comply with a decision from an Informal Hearing, including failure to adhere to a compliance schedule. An individual may request a Formal Hearing for purposes of reviewing/appealing a decision from an Informal Hearing. All requests for Formal hearings shall be in writing and contain a description of the reason why the individual or staff is requesting the Formal Hearing and a copy of the written decision of the Informal Hearing Officer if the Formal Hearing Board is being asked to review or enforce such a decision. Any person requesting a Formal Hearing shall provide the other parties with a copy of the request.

SECTION 30.02: FORMAL HEARINGS; SCHEDULING; PUBLIC NOTICE; OPEN TO THE PUBLIC

- a. The Director of the Environmental Health and Laboratory Services Bureau shall schedule a formal hearing to start within 30 working days after the Kalamazoo County Human Services Department receives a Formal hearing request.
- b. Hearings shall be open to the public and notice of such shall be posted in the principal office of the Human Services Department and the County Clerk at least 24 hours before the scheduled hearing. Such notice shall include the date, time, and location of hearing and the telephone number of the Human Services Department.

SECTION 30.03: FORMAL HEARINGS; NOTIFICATION

- a. The Director of the Environmental Health and Laboratory Services Bureau shall serve a Notice of Formal Hearing on the Respondent through personal service or certified mail, restricted delivery. The Director of the Environmental Health and Laboratory Services Bureau shall serve the Notice upon the respondent at least five (5) business days before the date scheduled for the Formal Hearing unless an immediate hearing is required by this Code. The Notice shall include:
 - i. A statement of the date, hour, place and nature of the Hearing. Unless otherwise specified in the Notice, the Hearing shall take place at the principal offices of the Environmental Health and Laboratory Services Bureau.
 - ii. A statement of the legal authority and jurisdiction under which the hearing is to be held.
 - iii. A reference to the particular section(s) of the code, which will be addressed at the hearing.
 - iv. A short, plain and detailed statement of the matters or violations asserted by the Health Officer and/or the Human Services Department. If the Health Officer and/or the Human Services Department cannot provide a detailed statement at the time the first notice is sent to the Respondent, the Health Officer and/or the Human Services Department shall provide a general statement of the issues involved. If the Health

Officer and/or Human Services Department initially provide a general statement, it shall provide the Respondent with a detailed statement as soon as practicable.

- v. A statement that the Respondent may request an adjournment of the Formal Hearing if the Respondent submits a written request for an adjournment to the Director of the Environmental Health and Laboratory Services Bureau at least 48 hours prior to the scheduled Hearing. The Director of the Environmental Health and Laboratory Services Bureau shall respond to the adjournment request prior to the scheduled hearing and if he/she grants the adjournment request he/she shall provide all parties involved in the Hearing with a written notice of adjournment that contains the new date, and time, of the Hearing.

SECTION 30.04: FORMAL HEARING; HEARING OFFICER; DUTIES

The Hearing Officer in a Formal Hearing acts as moderator of the proceedings but does not have the authority to render any final decisions as to whether the staff has sustained its burden of proof and proven its allegations. The Formal Hearing Board shall have the sole authority to enter final decisions as to whether the staff has sustained its burden of proof and proven its allegations.

SECTION 30.05: FORMAL HEARING; RESPONSE TO NOTICE OF HEARING; EVIDENCE; ATTORNEYS

- a. A respondent who receives a Notice of Formal Hearing may, but is not required to, file a written answer to the Notice with the Director of the Environmental Health and Laboratory Services Bureau at any time prior to the completion of the Informal Hearing.
- b. All parties involved in the Formal Hearing shall have the right to present oral and written arguments on issues of law and policy during the Formal Hearing.
- c. All parties involved in the Formal Hearing shall have the right to present evidence and argument on issues of fact during the Formal Hearing.
- d. A party shall have the right to cross-examine a witness, including the author of any document offered into evidence, which was prepared by, on behalf of, or for the use of the Health Officer and/or the Human Services Department.
- e. The Hearing Officer shall, as far as practicable, require the parties to comply with the Rules of Evidence which apply in non-jury civil cases in a Circuit Court, but the Hearing Officer may also admit and give probative effect to evidence which does not comply with the Rules of Evidence if it is a type commonly relied upon by reasonably prudent persons of the conduct of their affairs. The Hearing Officer may exclude irrelevant, immaterial or unduly repetitious evidence. The Hearing Officer shall give effect to legally recognized privileges such as Attorney-Client, Physician-Patient, Priest-Penitent, etc.
- f. All parties may, but are not required to, have an attorney represent their interests at an Informal hearing.
- g. The Health Officer and/or the Human Services Department shall make all records in a case,

including statements by the Human Services Department witnesses, available to Respondent for use on cross-examination.

- h. The Hearing Officer shall be responsible for calling on appropriate members of the staff or outside professionals to act as witnesses on behalf of the Human Services Department.
- i. All evidence to be presented at a hearing shall be entered only at the time of the hearing. No evidence will be added or deleted after the hearing.
- j. A deposition may be used in lieu of other evidence, if taken in accordance with the Michigan Court Rules.
- k. Documentary evidence may be received in the form of a copy or excerpt. All documentary evidence incorporated by reference must be made available to the Respondent and respondent's counsel prior to the Formal Hearing.

SECTION 30.06: FORMAL HEARINGS; FORMAT AND PROCEEDINGS; BURDEN OF PROOF; FORMAL HEARING BOARD'S RIGHT TO ASK QUESTIONS

The formal hearing shall proceed, as much as practicable, according to the following sequence of events:

- a. The Hearing Officer shall call the proceeding to order and provide the parties with a brief summary of information concerning the Hearing. This statement can be oral or written and shall include:
 - i. The date, time and reason for the Hearing.
 - ii. An introduction of those present, including their names, titles and the agency or person they represent.
 - iii. A description of the Hearing format and that the Hearing will be recorded.
 - iv. An acknowledgment that the Hearing Officer has either received, or has not received, any written statements or responses from the Respondent prior to the start of the Informal Hearing.
 - v. At this time the Hearing Officer shall also question the Formal Hearing Board Members as to any conflict of interest in the case before them.
- b. After the Hearing Officer completes all introductory remarks, the staff of the Environmental Health and Laboratory Services Bureau shall:
 - i. Present an overview/introductory statement which briefly describes the reason(s) why the Health Officer and/or Human Services Department has directed the holding of the Informal Hearing; the provision(s) of the Code or Compliance Schedule which the Respondent has alleged violated; and the evidence the staff intends to introduce during the Informal Hearing.

- ii. After the staff completes its introductory statement, the Respondent may, but is not required to, make a statement in which the Respondent states his/her position and what evidence the Respondent intends to introduce during the Informal Hearing.
 - iii. The staff then shall present its evidence, including the testimony of witnesses, to the Informal Hearing Officer.
 - iv. After the staff finishes with its presentation of evidence, the Respondent has the opportunity to make an introductory statement if he/she/it has not already made such a statement and present his/her/its evidence, including the testimony of witnesses, to the Informal Hearing Officer. The respondent is not required to present any evidence.
 - v. After the Respondent finishes his/her/its presentation of evidence, the staff shall have the opportunity to make a final argument in support of its position.
 - vi. After the staff completes its final argument, the respondent shall have the opportunity to make a final argument in support of his/her/its position.
- d. The staff bears the “burden of proof” in a Formal Hearing, which requires the staff to prove its allegations against the respondent by a preponderance of the evidence (e.g. that the evidence shows that it is more likely than not that the respondent violated the provisions of this Code or a Compliance Schedule).
 - e. The members of the Formal Hearing Board may ask questions of the parties and witnesses at any time. The Formal Hearing Board may also ask one or all parties to submit written proposed findings of fact for the Board’s review and possible adoption.

SECTION 30.07: FORMAL HEARINGS; DECISION OF FORMAL HEARING BOARD

- a. After the conclusion of the final arguments, the Formal Hearing Board shall issue an oral or written decision within thirty (30) days of the completion of the Hearing. The Board shall announce its final decision to all parties at a meeting open to the public.
- b. All decisions, whether oral or written, must include a brief recap of testimony and evidence presented to the Formal Hearing Board; the Formal Hearing Board’s finding of facts concerning the allegations raised by the staff, Health Officer or Human Services Department; and a determination of whether the staff has met its burden of proof and showed that the violations exist or occurred; and, if the staff has proven a violation, the action the respondent must take to correct the violation. Such action can include, but is not limited to, creation of a compliance schedule.
- c. The decision of the Formal hearing Board is final concerning the issue(s) addressed in the Board’s decision.

SECTION 30.08: APPEAL

Any party who disagrees with the decision of the Formal Hearing Board may appeal the decision to the appropriate Circuit Court. A party must submit his/her/its written appeal to the Circuit Court within 60 days of the date on which the Formal Hearing Board mailed or personally served its written final decision to the parties.

SECTION 30.09: FORMAL HEARINGS; PREPARATION AND MAINTENANCE OF AN OFFICIAL RECORD

The Human Services Department shall prepare an official record of all hearings that shall include the following:

- a. Notices, inspection reports, correspondence and conversations.
- b. Questions and offers of proof made during the Formal Hearing and the objections and rulings thereon.
- c. Evidence presented.
- d. Matters officially noticed by the Formal hearing Board except matters so obvious that a statement of them would serve no useful purpose.
- e. Proposed findings of fact if the Formal Hearing Board requested them.
- f. Any decisions, opinions, orders, or findings of fact by the Hearing Officer presiding at the hearing and by the Human Services Department.

ARTICLE VIII: CRIMINAL PENALTIES

CHAPTER 31: MAXIMUM PENALTIES; SEPARATE VIOLATIONS

- a. In addition to the enforcement procedures, civil penalties and hearing procedures contained in Articles II-VII of this Code, the violation of any provision of this Code shall also be criminal misdemeanor. Any individual convicted in a court of law of violating any provision of this Code shall be imprisoned in the County jail for up to Ninety (90) Days, or fined up to Two Hundred Dollars (\$200.00), or both.
- b. Each day that a violation exists constitutes a separate and distinct violation of this Code.

ARTICLE IX: ILLEGAL METHAMPHETAMINE LABORATORIES CLEANUP REGULATIONS

CHAPTER 23a: PURPOSE

The Kalamazoo County Board of Commissioners has determined that it is necessary to ensure that dwellings that have been used as illegal methamphetamine labs are “safe” to reoccupy and has authorized the Kalamazoo County Health and Community Services Department to establish standards for the cleanup of illegal methamphetamine laboratories used to manufacture and/or use methamphetamine. Pursuant to these regulations, property owners or any person seeking to inhabit a dwelling or to lease/rent/sell a dwelling for habitation, are required to meet all of the requirements set forth in these regulations before permitting the human habitation of a dwelling used as an illegal methamphetamine laboratory, except that a property owner may elect instead to demolish the contaminated property.

CHAPTER 24a: APPLICABILITY

The requirements of this section apply: (1) when an owner of property has received notification from the Kalamazoo County Health & Community Services Department that chemicals, equipment, or supplies indicative of an illegal methamphetamine laboratory are located at the property, or (2) when an illegal methamphetamine laboratory is otherwise discovered, and the owner of the property where the drug laboratory is located has received notice.

CHAPTER 25a: DEFINITIONS

SECTION 25a.01: “Building” means a structure that has the capacity to contain, and is designed for the shelter of, man, animals, or property, or place adapted for overnight accommodations of persons or animals, whether or not a person or animal is actually present. “Building” also includes manufactured homes and mobile homes.

SECTION 25a.02: “Chemical Investigation Site” means a building, property, structure, or a portion thereof, identified by a law enforcement agency, the MDEQ, the MDCH or the Department as a suspected illegal methamphetamine laboratory.

SECTION 25a.03: “Chemical Manifest” means the form used for identifying the quantity, composition, or origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of disposal, treatment, or storage.

SECTION 25a.04: “Chemical storage area” means any area where chemicals used in the manufacture of methamphetamine are stored or have come to be located.

SECTION 25a.05: “Cleanup level” means the numerical value, established in section 30a of this regulation, that causes the consultant to determine if an area is compliant or noncompliant based on the results of sampling conducted in accordance with the sampling procedures presented in Appendix A of these regulations.

SECTION 25a.06: “Consultant” means an Environmental Professional, (as described in SECTION 25a.18 of these definitions), who is not an employee, agent, representative, partner, joint venture participant, shareholder, parent or subsidiary company of the contractor who performs the sampling of the preliminary and post-decontamination assessments.

SECTION 25a.07: “Contaminant” means a chemical, chemical residue or compound that may be present and may pose an immediate or long-term threat to human health and the environment.

SECTION 25a.08: “Contamination” or “Contaminated” means the presence of chemical residues, which may present an immediate or long-term threat to human health or the environment.

SECTION 25a.09: “Contractor” means one or more individuals or commercial entities hired to perform decontamination work in accordance with the requirements of this regulation.

SECTION 25a.10: “Cooking area” means any area where methamphetamine manufacturing is occurring or has occurred.

SECTION 25a.11: “Decision level” means that concentration, relative to the cleanup level, that shall be used to distinguish between compliant and non-compliant areas. The calculation for the decision level for composite samples is found in Appendix A, Composite Decision Level.

SECTION 25a.12: “Decontamination” means the process of reducing the level of contamination to a level as low as reasonably achievable (ALARA) using currently available methods. At a minimum, decontamination must reduce contamination of specified substances below the concentrations described in SECTION 30a of these regulations.

SECTION 25a.13: “Demolition” means the wrecking or taking out of any load-supporting structural member, including any related handling operations.

SECTION 25a.14: “Department” means the director or acting director of the Kalamazoo County Health and Community Services Department and his or her authorized representative.

SECTION 25a.15: “Disposal” means handling, transportation and ultimate disposition of materials removed from contaminated properties.

SECTION 25a.16: “Documentation” means preserving a record of an observation through writings, drawings, photographs, or other appropriate means.

SECTION 25a.17: “Encapsulation” means applying a surface sealant to create a physical barrier intended to decrease or to eliminate the potential for exposure to residual contaminants that may exist beneath the physical barrier even after decontamination.

SECTION 25a.18: “Environmental Professional” means a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions, recommendations and conclusions regarding contamination conditions indicative of the use or manufacture of methamphetamine on, at, or in a structure sufficient to meet the objectives and performance factors of these regulations.

SECTION 25a.19: “HazMat” means Hazardous Materials.

SECTION 25a.20: “HEPA filtration” means a filtering system capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles 0.3 microns in diameter or larger.

SECTION 25a.21: “Illegal Methamphetamine Laboratory” means a building, property, structure or recreational vehicle that is used or has been used for the illegal manufacturing or storage of methamphetamine.

SECTION 25a.22: “Independent” means that a person is not an employee, agent, representative, partner, joint venturer, shareholder, or parent or subsidiary company of another person.

SECTION 25a.23: “Media” means the physical material onto which a sample substrate is collected. Media includes cotton gauze, glass fiber filters, MCE membranes, etc.

SECTION 25a.24: “Methamphetamine” means dextro-methamphetamine, levo-methamphetamine, and unidentified isomers of the same, any racemic mixture of dextro/levo methamphetamine, or any mixture of unidentified isomers of methamphetamine. The term includes derivatives, conjugates, oxides, and reduced forms of the basic structure of Methamphetamine. For the purposes of this regulation, this term also includes amphetamine, ephedrine, and pseudoephedrine.

SECTION 25a.25: “Negative air unit” means a portable exhaust system equipped with HEPA filtration and capable of maintaining a constant high velocity airflow out of the contaminated area, resulting in a constant low velocity air flow into the contaminated area from adjacent uncontaminated areas.

SECTION 25a.26: “Non-porous Surface” means a surface that does not readily admit the passage of gas, residue, or liquid through its pores or interstices.

SECTION 25.27: “Onsite Sewage Treatment System” or “Onsite sewage treatment system” or “OSTS” means the methods and devices including septic tanks, holding tanks, pump chambers, piping, pumps, vents, distribution systems and soil absorption systems used to treat and/or dispose of sewage emanating from a dwelling or premise.

SECTION 25a.28: “Porous Surface” means a surface that readily admits the passage of gas, residue or liquid through its pores or interstices.

SECTION 25a.29: “Publicly owned treatment works” or “POTW” means a publicly owned domestic wastewater treatment facility.

SECTION 25a.30: “Preliminary assessment” means an evaluation of a property to determine the current condition, including the nature and extent of observable or detectable contamination, chemical storage and disposal.

SECTION 25a.31: “Property” means anything that may be the subject of ownership or possession, including, but not limited to, land, buildings, structures, recreational vehicles (motorized and nonmotorized campers, trailers, motor homes), and personal belongings.

SECTION 25a.32: “Property owner” for the purpose of real property, means the person holding fee title to real property. “Property owner” also means the person holding title to a manufactured home. With respect to personal property, the term means the person who lawfully owns such property.

SECTION 25a.33: “Removal” means the taking out or stripping of material or surfaces to eliminate the potential for exposure to contaminants on or in the material or surfaces.

SECTION 25a.34: “Substrate” means the material being collected. Substrates may include soils, water, painted surfaces, carpet debris, unidentified powders, dust, etc.

SECTION 25a.35: “Waste disposal area” means any area where chemicals used or generated in the manufacture of methamphetamine are disposed or have come to be located.

SECTION 25a.36: “Wipe sample” means a surface sample collected by wiping a sample media on the surface being sampled in accordance with Appendix A and B of these regulations.

CHAPTER 26a: CONDEMNATION PROCEDURES

Whenever the Department receives written notice from the Michigan Department of Environmental Quality, (MDEQ), the Michigan Department of Community Health, (MDCH) or from a local law enforcement agency about the existence of any property, dwelling, structure or recreational vehicle that is or has been identified as a suspected illegal methamphetamine laboratory, the Department shall institute the procedures set forth in these regulations. Written notification from a law enforcement agency, the MDEQ, and/or the MDCH should include:

- i. Property location by street address and other identifiable locators
- ii. Owner’s and Occupant’s identities including the identities of any children pregnant women or vulnerable adult found or known to be associated with the site
- iii. A copy of the search warrant affidavit and police report, if one exists
- iv. A copy of the chemical manifest as provided by the HazMat responder, if one exists

If the notice does not include any of the above-listed items, the Department shall contact the law enforcement agency that discovered the suspected illegal methamphetamine laboratory and secure the necessary information.

SECTION 26a.01: The Department shall not be responsible for the initial removal and inventory of all chemicals found at a suspected illegal methamphetamine laboratory.

SECTION 26a.02: After a law enforcement agency completes its investigative work and prepares to leave a suspected illegal methamphetamine laboratory, it shall leave a KCHSD Condemnation sign conspicuously posted on the entrance of the affected part of the structure, if a written agreement is in place between the law enforcement agency and the Department for the posting of a condemnation sign identifying the property of structure as a Chemical Investigation Site. If no such agreement is in place between the law enforcement agency and the Department, the Department shall post the condemnation sign on the entrance of the affected property or structure as a Chemical Investigation Site. The condemnation sign shall be of a size and contain information sufficient to alert visitors or returning occupants to the site that the area is a Chemical Investigation Site, may be dangerous to enter, and should be vacated in conformance with the provisions of these regulations. Once this sign is posted, it shall be unlawful for any person to enter the site except by permission of the Department. This proscription shall not apply to law enforcement officers, health officials, or their agents or the owners consultants and/or contractors who have been hired to assess or decontaminate

the illegal methamphetamine laboratory. It shall be unlawful for any person, other than the Department to remove this sign.

SECTION 26a.03: After the Department receives information from law enforcement that it has identified a suspected illegal methamphetamine laboratory and posted the appropriate condemnation sign, or after the Department has posted the condemnation sign, the Department shall contact the Owner, Occupant and Property Agent, if applicable, by certified mail, to inform the Owner and Occupant of their responsibilities relative to the condemnation notice. The Department shall issue a notice and Order requiring the Owner and Occupant to have the Public Health Nuisance removed or abated pursuant to this regulation. The Department shall include the following in the notice and order:

- i. Information about the Public Health Hazard and Public Health Nuisance
- ii. A summary of the Owner's and Occupant's responsibilities under this Ordinance
- iii. Information that can assist the Owner and Occupant to locate appropriate services necessary to abate the Chemical Investigation Site Public Health Nuisance

SECTION 26a.04: Notice for Abatement or Removal must be served on the Owner, Occupant and Property Agent, if applicable, in one of the following ways:

- i. By registered or certified mail using the last know address of record;
- ii. By a law enforcement officer authorized to serve a warrant

SECTION 26a.05: If the Owner of the property is unknown or absent and has no known representative upon whom notice can be served, the Department shall post a written or printed notice on the property stating that, the site is a Chemical Investigation Site, may be dangerous to enter, and may not be entered except by authorization of the Department. Once this sign is posted, it shall be unlawful for any person to enter the site except by permission of the Department. This proscription shall not apply to law enforcement officers, health officials, or their agents, or to consultants that are conducting preliminary assessment or decontaminating the site.

SECTION 26a.06: The Department shall send written notice about the Chemical Investigation Site Public Health Nuisance declaration within three (3) business days of service of a notice of abatement describing the condition of the property and the action required to the following parties:

- i. The respective township/municipality in which the house resides
- ii. Local law Enforcement Agency
- iii. The Michigan Department of Community Health
- iv. The Michigan Department of Environmental Quality

- v. The Michigan Human Services Department (Formally Family Independence Agency), if applicable

SECTION 26a.07: Pursuant to this regulation, Owner(s) and/or Occupant(s) provided with a notice, including posted notice informing them about the suspected illegal Methamphetamine Laboratory, shall promptly act to vacate the Occupants within twenty-four (24) hours.

CHAPTER 27a: PRELIMINARY ASSESSMENT

A preliminary assessment shall be conducted by the consultant, in accordance with this regulation, prior to the commencement of property decontamination. Information gained during the preliminary assessment shall be the basis for property decontamination and clearance sampling. Contractors and consultants shall use appropriate personal protective equipment during the preliminary assessment. Access to the property shall be limited to those with appropriate training and personal protective equipment. The preliminary assessment report must be completed and signed by the Environmental Professional as defined in Section 25a.18 of these regulations. Information collected during the preliminary assessment shall include, but not be limited to, the following:

- i. Property description including physical address, legal description, number and type of structures present, description of adjacent and/or surrounding properties, and any other observations made.
- ii. Review of available law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal.
- iii. Identification of structural features that may indicate separate functional spaces, such as attics, false ceilings and crawl spaces, basements, closets, and cabinets.
- iv. Identification of manufacturing methods based on observations and law enforcement reports.
- v. Identification of chemicals used, based on observations, law enforcement reports, and knowledge of manufacturing method(s).
- vi. Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination.
- vii. Identification and documentation of chemical storage areas.
- viii. Identification and documentation of waste disposal areas.
- ix. Identification and documentation of cooking areas.

- x. Identification and documentation of signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation.
- xi. Inspection of plumbing system integrity and identification and documentation of potential disposal into the sanitary sewer or an onsite sewage treatment system (OSTS). If the consultant determines that field screening and/or sampling of an OSTs is necessary to determine if methamphetamine lab wastes have been disposed of into a OSTs, such field screening and/or sampling must be conducted in accordance with methods identified in Appendix D of these regulations.
- xii. Identification of adjacent units and common areas where contamination may have spread or been tracked.
- xiii. Identification and documentation of common ventilation systems with adjacent units or common areas.
- xiv. Photographic documentation of property conditions, including cooking areas, chemical storage areas, waste disposal areas, and areas of obvious contamination.
- xv. All assessment sampling shall be conducted as part of the preliminary assessment to characterize the presence, nature and extent of contamination. Assessment sampling and laboratory analysis shall be conducted in accordance with Chapter 29a and Appendices A, B, C and D of these regulations.

The property owner has the option of waiving the assessment-sampling portion of the preliminary assessment process. In the event that the property owner elects to waive the assessment-sampling portion of the preliminary assessment process, a written request shall be submitted to the Department indicating that the homeowner has elected to waive this portion of the preliminary assessment process. In addition, the remaining information described in Chapter 27a, (Preliminary Assessment) items i.-xiv. shall be submitted to the Department for review prior to beginning the decontamination process.

CHAPTER 28a: DECONTAMINATION PROCEDURES

If the results of the Preliminary Assessment identify that the building or structure is contaminated as a result of illegal methamphetamine activity or if the property owner elects to waive the preliminary assessment, decontamination shall be conducted to reduce the concentration of contaminants to the levels specified in Chapter 30a of this regulation. Decontamination shall be conducted in accordance with procedures designed to protect workers, future occupants, neighbors and the general public, and shall include, but not be limited to, the following:

SECTION 28a.01: A negative air unit, equipped with a HEPA filtration system, shall be used throughout the decontamination process to reduce airborne particulates.

SECTION 28a.02: Detergent water washing of non-porous, porous and semi porous surfaces that are contaminated, or that are reasonably expected to be contaminated, that will not be removed. It is

strongly recommended that all carpet and padding suspected of being contaminated be removed and discarded.

SECTION 28a.03: Removal of all contaminated material that will not or cannot be decontaminated to cleanup levels specified in Chapter 30a of this regulation. If sampling cannot demonstrate that cleanup levels have been met on any contaminated material, said material shall be removed and properly disposed of in accordance with these regulations. Any removal of asbestos or lead based paint must be conducted in accordance with all applicable Federal, State and local requirements.

SECTION 28a.04: Encapsulation of porous and semi-porous surfaces may be conducted after detergent water washing and after clearance sampling has demonstrated that cleanup levels have been achieved.

SECTION 28a.05: Decontamination of ventilation systems by a contractor that is trained and equipped to comply with the protocol for ventilation system decontamination, presented in Appendix C of these regulations. It is recommended that the contractor use the National Air Duct Cleaners Association (NADCA) Guidelines for the decontamination of ventilation systems.

SECTION 28a.06: Water flushing of plumbing systems connected to the sanitary sewer to eliminate any residual chemicals.

SECTION 28a.07: Inspection of an OSTs if applicable is required to be tested in accordance with the protocol presented in Appendix D of these regulations, to determine if the OSTs has been impacted by methamphetamine lab derived chemical wastes.

SECTION 28a.08: Personal Property

- i. Personal property must either be decontaminated to the cleanup levels specified in Chapter 30a of this regulation, or properly disposed in accordance with these regulations.
- ii. Personal property that will not be disposed of must be sampled in accordance with procedures described in Appendix A of these regulations.
- iii. Composite samples may be collected in accordance with the following procedure. Composite samples must be taken from items constructed of like materials that are contained within the same individual functional space (e.g., clothing from a bedroom closet may be sampled as a composite, fabric furniture within a living room may be sampled as a composite, draperies within an individual room may be sampled as a composite, non-porous goods such as wood or metal tables, shelves, cabinets, etc. in the same room may be sampled as a composite, etc.). A composite sample is considered representative of contaminant levels on all personal property of that type material within the same functional space. No more than 4 individual items may be included in any one composite sample. Should analysis of composite samples from multiple items indicate methamphetamine levels in excess of the cleanup level, all items comprising the composite sample will be considered to be in excess of cleanup levels.

SECTION 28a.09: Debris and contaminated material generated during methamphetamine lab decontamination shall be managed as solid waste, with notification provided to the landfill for methamphetamine lab contaminated material. Wash water can be containerized for offsite disposal, or disposed to the sanitary sewer with approval from the POTW. Wastes removed from OSTs shall be disposed of as either solid or hazardous waste based on results of laboratory analysis as described in Appendix D of these regulations.

SECTION 28a.10: Any demolition, removal and disposal of all or part of a structure shall be conducted in accordance with all local, State and Federal requirements.

CHAPTER 29a: POST-DECONTAMINATION SAMPLING AND ANALYTICAL PROCEDURES

SECTION 29a.01: It is recommended that assessment sampling be conducted as part of the preliminary assessment to characterize the nature and extent of contamination. Assessment sampling and laboratory analysis shall be conducted in accordance with Appendices A, B, C and D of these regulations.

SECTION 29a.02: The consultant may determine that some areas should be deemed to be contaminated based on data other than assessment sampling. Areas that are deemed to be contaminated do not need to be sampled as part of the preliminary assessment.

SECTION 29a.03: Post-decontamination clearance sampling shall be conducted to verify that cleanup standards have been met. Sample collection and laboratory analysis shall be conducted in accordance with the procedures set forth in Appendices A, B, C and D of these regulations.

SECTION 29a.04: Locations of samples shall be based on information gathered during the preliminary assessment. Samples shall be collected from:

- i. Areas expected to have the highest levels of contamination, such as cooking areas, chemical storage areas, and waste disposal areas.
- ii. Areas where contamination may have migrated, such as adjacent rooms or units, common areas, and ventilation systems.

SECTION 29a.05: The number and type of samples shall be based on the size of the area or material, the chemical or contaminant being tested for, and the purpose of the sample (i.e., initial assessment or final clearance).

- i. Discrete sampling is required in all cases
- ii. Composite sampling may only be conducted in situations where contamination is expected to be relatively evenly dispersed throughout a given area, and composite sampling will provide an accurate representation of the area sampled, as described in Appendix A.

SECTION 29a.06: Sample handling, including labeling, preservation, documentation, and chain-of-custody, shall be conducted in a manner consistent with the requirements of the analytical method being used.

SECTION 29a.07: Analytical methods shall be based on the compound being sampled for. Sample analysis shall be conducted in accordance with the method requirements presented in Appendices A, B, C and D of these regulations.

SECTION 29a.08: If the property has a OSTS, evaluation and potential sampling of the OSTS may be conducted in accordance with Appendix D of these regulations. The investigation and cleanup of soil, surface water and groundwater contamination resulting from disposal of methamphetamine lab wastes into a OSTS shall be conducted in accordance with all applicable rules and requirements imposed by the Michigan Department of Environmental Quality-Remediation and Redevelopment Division

SECTION 29a.09: Quality Control/Quality Assurance (QA/QC) samples, including sample blanks, matrix spike and matrix spike duplicates, shall be collected and/or analyzed as specified in the sampling and analysis protocols presented in Appendix A of these regulations. Laboratory QA/QC shall be conducted in accordance with method requirements as specified in Appendix B of these regulations.

SECTION 29a.10: To prevent any real or potential conflicts of interest, consultants conducting preliminary assessments and post-cleanup assessments must be independent of the company or entity that will subsequently conduct the drug lab cleanup.

CHAPTER 30a: CLEAN UP LEVELS

The following cleanup levels shall be used to determine if a property has been adequately decontaminated. They may also be used during the preliminary assessment to demonstrate that a property, or portion of a property, is not contaminated. All properties must meet the cleanup level for methamphetamine. Additional cleanup levels that may be applied to a property shall be based on information gained during the preliminary assessment.

SECTION 30a.01: Surface wipe samples for methamphetamine shall not exceed a concentration of $0.5 \mu\text{g} / 100 \text{ cm}^2$.

SECTION 30a.02: The investigation and cleanup of outdoor contamination, including soil, surface water and groundwater, shall be conducted in accordance with the Michigan Department of Environmental Quality-Remediation & Redevelopment Division.

CHAPTER 31a: POST-DECONTAMINATION REPORTING

A final report shall be prepared by the consultant to document the decontamination process and demonstrate that the property has been decontaminated to the cleanup levels listed in Chapter 30a of these regulations. The final report shall be complete and signed by the Environmental Professional and include, but not be limited to, the following:

SECTION 31a.01: Property description including physical address, legal description, ownership, number and type of structures present, description of adjacent and/or surrounding properties, and any other observations made.

SECTION 31a.02: Description of manufacturing methods and chemicals used, based on observations, law enforcement reports and knowledge of manufacturing method.

SECTION 31a.03: If available, copies of law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal.

SECTION 31a.04: A description of chemical storage areas

SECTION 31a.05: A description of waste disposal areas

SECTION 31a.06: A description of cooking areas

SECTION 31a.07: A description of areas with signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation, with a figure documenting location(s).

SECTION 31a.08: The results of inspection of plumbing system integrity and identification of sewage disposal mechanism.

SECTION 31a.09: If applicable, a description of adjacent units and common areas where contamination may have spread or been tracked.

SECTION 31a.10: If applicable, an identification of common ventilation systems with adjacent units or common areas.

SECTION 31a.11: A description of the sampling procedures used, including sample collection, handling, and QA/QC.

SECTION 31a.12: A description of the analytical methods used and laboratory QA/QC requirements.

SECTION 31a.13: A description of the location and results of initial sampling (if any), including a description of sample locations and a figure with sample locations and identification.

SECTION 31a.14: A description of the health and safety procedures used in accordance with OSHA requirements.

SECTION 31a.15: A description of the decontamination procedures used and a description of each area that was decontaminated.

SECTION 31a.16: If applicable, a description of the removal procedures used and a description of areas where removal was conducted, and the materials removed.

SECTION 31a.17: If applicable, a description of the encapsulation procedures used and a description of the areas and/or materials where encapsulation was performed.

SECTION 31a.18: A description of the waste management procedures used, including handling and final disposition of wastes.

SECTION 31a.19: A description of the location and results of post-decontamination samples, including a description of sample locations and a figure with sample locations and identification.

SECTION 31a.20: Photographic documentation of pre- and post-decontamination property conditions, including cooking areas, chemical storage areas, waste disposal areas, areas of obvious contamination, sampling and decontamination procedures, and post-decontamination conditions.

SECTION 31a.21: Consultant statement of qualifications, including professional certifications or qualifications within the Environmental Profession and description of experience in assessing contamination associated with illegal methamphetamine labs.

SECTION 31a.22: Certification of procedures and results, and variations from standard practices.

SECTION 31a.23: A signed certification statement in one of the following forms, as appropriate:

“I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with the Kalamazoo County Illegal Methamphetamine Cleanup Regulations. I further certify that the property has been decontaminated in accordance with the procedures set forth in the Kalamazoo County Illegal Methamphetamine Cleanup Regulations and that the cleanup standards established by Kalamazoo County have been met as evidenced by testing I conducted.”

“I do hereby certify that I conducted a preliminary assessment of the subject property in accordance the Kalamazoo County Illegal Methamphetamine Cleanup Regulations. I further certify that the cleanup standards established by Kalamazoo County have been met as evidenced by testing I conducted.”

SECTION 31a.24: Signature of the Environmental Professional.

SECTION 31a.25: The property owner and consultant shall each retain a copy of the report for a period of seven years.

CHAPTER 32A: REFERENCE MATERIALS

List of Materials Incorporated by Reference

American Society for Testing and Materials (ASTM) Method D3278-96e1 (October 1997), Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester.

American Society for Testing and Materials (ASTM) Method D5756-02 (November 2002), Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Mass Concentration.

American Society for Testing and Materials (ASTM) Method D93-02a (December 2002), Standard Test Methods for Flash Point by Pensky-Martens Closed Tester.

Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup, EPA-560/5-86-017 (May 1986).

National Institute for Occupational Safety and Health (NIOSH), U.S. Department of Health and Human Services (DHHS), NIOSH Manual of Analytical Methods (NMAM), 4th. Ed., DHHS (NIOSH) Publication No. 94-113 (August, 1994), 1st supplemental publication 96-135 (1996), 2nd supplement publication 98-119 (1998):

Method 6009, Mercury (Issue 2, August 1994).

Method 9100, Lead in Surface Wipe Samples (Issue 2, May 1996).

Regulations Pertaining to the Cleanup of Methamphetamine Laboratories, Colorado Department of Public Health and Environment, Department of Public Health and Environment, 6 CCR 1014-3, (Adopted January 19, 2005)

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846 [Third Edition (November 1986), as amended by Updates I (dated July 1992), II (dated September 1994), IIA (dated August 1993), IIB (dated January 1995), III (dated December 1996) and IIIA (dated April 1998)]:

Method 1010, Pensky-Martens Closed-Cup Method for Determining Ignitability (Revision O, September 1986).

Method 1020A, Setaflash Close-Cup Method for Determining Ignitability (Revision 1, July 1992).

Method 1110, Corrosivity Toward Steel (Revision O, September 1986).

Method 6020, Inductively Coupled Plasma – Mass Spectrometry (Revision O, September 1994).

Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (Revision 2, December 1996).

Method 9014, Titrimetric and Manual Spectrophotometric Determinative Methods for Cyanide (Revision O, December 1996).

Method 9021, Purgeable Organic Halides (POX) (Revision O, December 1996).

Method 9034, Titrimetric Procedure for Acid-Soluble and Acid Insoluble Sulfides (Revision O, December 1996).

Method 9040B, pH Electrometric Measurement (Revision 2, January 1995).

APPENDIX A

METHAMPHETAMINE LABORATORIES

SAMPLING METHODS AND PROCEDURES

Purpose

The purpose of this appendix is to provide a procedure for reducing variability in the collection of samples in the characterization of contaminants at illegal drug laboratories. Additional discussion of the sampling theory for sampling techniques described in this appendix are provided in the attachment at the end of this appendix.

Pre-Decontamination sampling

In pre-decontamination sampling, the assumption (hypothesis) is made that the area is clean i.e. “compliant,” and data will be collected to find support for the hypothesis. Data (such as samples) are collected to “prove” the area is compliant. Sampling, if it is performed, is conducted in the areas with the highest probability of containing the highest possible concentrations of contaminants. Any data that disproves the hypothesis, including police records, visual clues of production, storage, or use or documentation of drug paraphernalia being present, is considered conclusive, and leads the consultant to accept the null hypothesis and declare the area non-compliant.

Post-Decontamination sampling

In post-decontamination sampling, the hypothesis is made that the area is non-compliant, and data is collected to test the hypothesis. The role of the consultant in post decontamination sampling is not to demonstrate that the area is “clean,” but rather, using biased sampling, to diligently attempt to prove that the area is not clean. The lack of data supporting the hypothesis leads the consultant to accept the null hypothesis and conclude that the area is compliant.

Decision Statement

If, based on the totality of the circumstances, the consultant finds that insufficient evidence exists to support the hypothesis that any given area is non-compliant, that area shall be deemed to be compliant with Chapter 30a of these regulations and shall be released. If objective sampling data indicates contamination is less than the cleanup level, that data may be used as *prima facie* evidence that insufficient evidence exists to support the hypothesis that any given area is non-compliant.

Area Samples

Buildings and Structures

Wipe Sample

For illegal methamphetamine laboratories, as defined in these regulations whose structural floor plan is not greater than 1,500 square feet, surface sampling shall be collected according to the following schedule.

Exception: for pre-decontamination scenarios, any and all other data may be used in lieu of sampling to reject the hypothesis and deem the area to be contaminated.

At least 1000 cm² of surface shall be sampled, unless the area is assumed to be non-compliant.

- At least 1,000 cm² of total surface area must be sampled for any single laboratory identified pursuant to these regulations
- An additional 100 cm² must be sampled for every additional 400 square feet of structural floor space.
- A minimum of four samples shall be collected from any laboratory identified

The required sample area shall be composed of no fewer than three discrete samples. Should composite samples be collected, each composite shall consist of no greater than five discrete samples collected in accordance with the procedures outlined in the section in this appendix on Composite Sampling.

Where the illegal methamphetamine laboratory is located in a structure other than a single-family dwelling, the potential of fugitive emissions must be considered. For example, if the area was located in an hotel room, and evidence of contamination extended into the corridor, the elevator, the lobby, and one adjacent room, there would be four separate areas to evaluate: 1) The primary hotel room, 2) the corridor/elevator complex 3) the lobby, 4) the adjacent hotel room.

Every area exhibiting indication of contamination shall be sampled. For example, where a single-family dwelling meets the definition of an illegal methamphetamine laboratory, and an associated detached garage contains indications of contamination, the dwelling and the garage shall be evaluated separately.

Recreational Vehicles

Wipe Sample

For illegal methamphetamine laboratories in recreational vehicles, surface sampling shall be collected according to the following schedule. Exception: for pre-decontamination scenarios, any and all other data may be used in lieu of sampling to reject the hypothesis and deem the area to be contaminated.

- A minimum of 500 cm² of surface shall be sampled, unless the area is assumed to be noncompliant.
- An additional 100 cm² must be sampled for every 50 square feet of structural floor space for any recreational vehicle, such as a motor home, trailer, or camper.
- A minimum of three samples shall be collected from any laboratory identified in a recreational vehicle.

The required sample area shall be composed of no fewer than three discrete samples. Should composite samples be collected, each composite shall consist of no greater than five discrete samples collected in accordance with the procedures outlined in the section in this appendix on Composite Sampling.

Sampling Procedures

Non-Porous Surfaces - Wipe Samples

Wipe sampling shall be used to determine the extent of contamination on non-porous surfaces. Wipe samples shall be collected in accordance with the procedures set forth below for either discrete or composite samples.

Sample media may consist of one of the following:

- Gauze material, including Johnson & Johnson cotton squares or equivalent.
- Filter paper, including Whatman 40, 41, 42, 43, 44, 540, 541, Ahlstrom 54, VWR 454, S&S WH Medium, or other filter paper with equivalent performance.

The following procedure is for collecting discrete wipe samples from non-porous surfaces.

1. Attach disposable templates or masking tape to the area(s) to be sampled, being careful not to touch the area within the template. The sample area shall be 100 cm² (10cm by 10cm) or a multiple of 100 cm².
2. Prepare a rough sketch of the area(s) to be sampled.
3. The sample media should be wetted with distilled water or solvent (isopropyl alcohol or methanol) to enhance collection efficiency.
4. Use a new set of clean, non-powdered impervious gloves for each sample to avoid contamination of the sample media by previous samples and to prevent contact with the substance.
5. Press the sample media down firmly, but not excessively, with the fingers, being careful not to touch the sample surface with the thumb. Blot rough surfaces uniformly instead of wiping. Wipe smooth surfaces as described below.

6. Wiping may be done by one of the following methods:
 - a. Square method: Start at the outside edge and progress toward the center of the surface area by wiping in concentric squares of decreasing size.
 - b. "S" method: Wipe horizontally from side-to-side in an overlapping "S"-like pattern as necessary to completely cover the entire wipe area.
7. Without allowing the sample media to come into contact with any other surface, fold the sample media with the sampled side in.
8. Use the same sample media to repeat the sampling of the same area. If using the "S" method, the second pass shall be sampled by wiping with overlapping "S"-like motions in a top-to-bottom direction.
9. Fold the sample media over again so that the sampled side is folded in. Place the sample media in a sample container, cap and number it, and note the number at the sample location on the sketch. Include notes with the sketch giving any further description of the sample.
10. At least one sample media blank, treated in the same fashion but without wiping, should be submitted for every 10 samples collected.

When collecting composite samples, the procedure outlined above shall be used with the following exceptions:

1. A single pair of gloves may be used to collect each single sample that will be part of a composite sample. However, a new pair of gloves must be used for each set of composite samples.
2. All individual samples that make up a composite sample must be placed in one sample container.

Porous Surfaces - Wipe Samples

Wipe sampling of porous surfaces may be conducted during the preliminary assessment, in lieu of vacuum sampling, in order to obtain a qualitative (absence or presence) identification of a chemical. Wipe sampling shall not be used to demonstrate that cleanup levels have been met on porous surfaces.

Outdoors

For laboratories with outdoor components, or laboratories which are exclusively outdoors, the following sampling must be performed when conditions indicate the potential for soil contamination. Sampling must be conducted in accordance with the grid sampling method as described in the Midwest Research Institute's publication titled "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup" (referenced in 40 CFR § 761.130), which is incorporated herein by reference. Surface samples shall be taken to a depth of no greater than 8 cm. Sample volume should be at least 100 cm³ and no more than 250 cm³. (Guidance on soil sampling can be found in ASTM D5730,

ASTM E1727, ASTM D4700, and the EPA Environmental Investigations Standard Operating Procedures and Quality Assurance (EISOPQA) Manual. Additional subsurface samples may be required.

Other outdoor surfaces should be evaluated based on best professional judgment. Wipe samples and destructive samples may be required.

Composite Sampling

Composite sampling is permitted by this regulation, as described herein. The consultant may not use composite sampling unless in their professional judgment, contamination is expected to be relatively evenly dispersed throughout a given area, such that the sampling will accurately represent the conditions of the drug laboratory. If compositing is used, then the composite shall consist of no greater than five discrete samples. Any composite sampling must consist of like media, matrices or substrates. The mixing of media, matrices or substrates is not permitted. All individual samples (designated as *g*), from which any single composite is formed must be of equal volume (for liquids), equal surface area (for surface wipe sampling or vacuum sampling) or equal weight (for solids).

Composite sampling may be implemented using one of the following sampling designs. The consultant shall chose the sampling design based upon the specific conditions of the drug laboratory being assessed.

Simple Random Composite Sampling

Figure 1A below illustrates a simple random composite sampling design. In this figure, the sampled area could represent any surface or media about which a decision must be made (such as a series of walls, or carpeting or even contaminated soils).

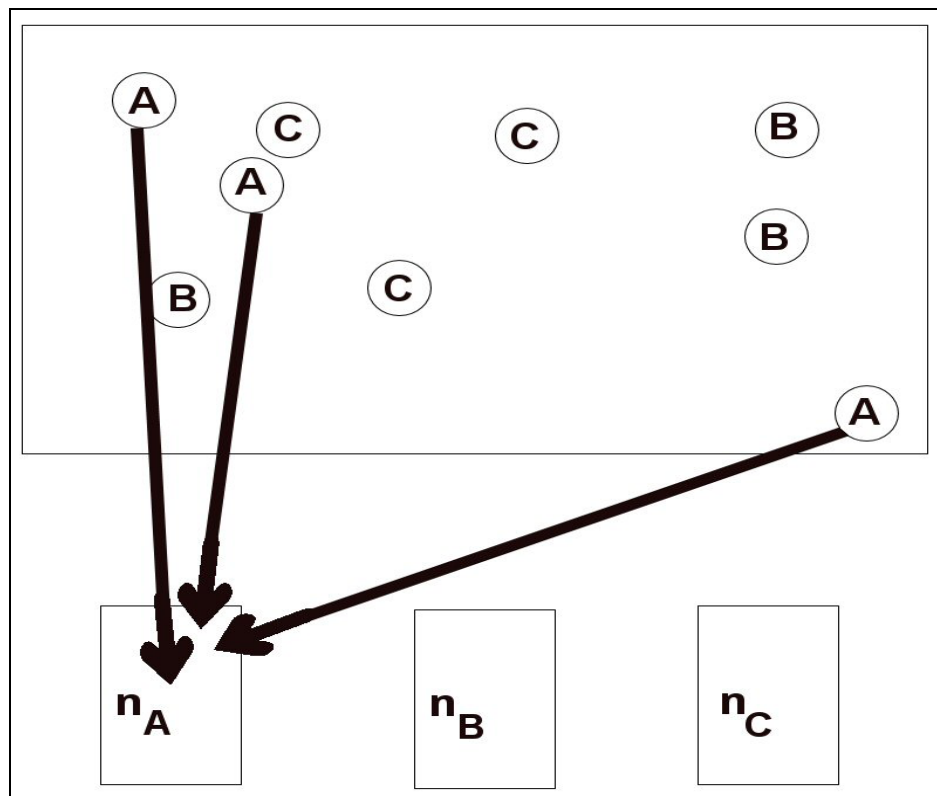


Figure 1A
Example of Random Sample Composites

In the above example, nine individual samples ($n \cdot g = 9$) are composited into three samples for submission to a laboratory (XA, XB, XC).

The individual sample locations can be selected by any number of methods such as those as described in American Society for Testing and Materials (ASTM) Method D6051-96 (2001), *Standard Guide for Composite Sampling and Field Subsampling for Environmental Waste Management Activities*. The “system of halves” as described in 40 CFR § 761.306 may also be used.

An example of the “system of halves” is provided below and illustrated in Figures 1B and 1C.

1. Select the surface which represents the area of highest possible contamination
2. Delineate one square meter within the area
3. Divide the one square meter area in half with an imaginary line in any direction
4. Assign each half “heads” or “tails”
5. Flip a coin
6. Divide the “winning side” in half with an imaginary line in any direction
7. Flip a coin
8. Continue dividing the “winning” side until the winning side is between 100 cm² and 200 cm² and collect the wipe sample from that area
9. The method is repeated for each individual (g) of the composite

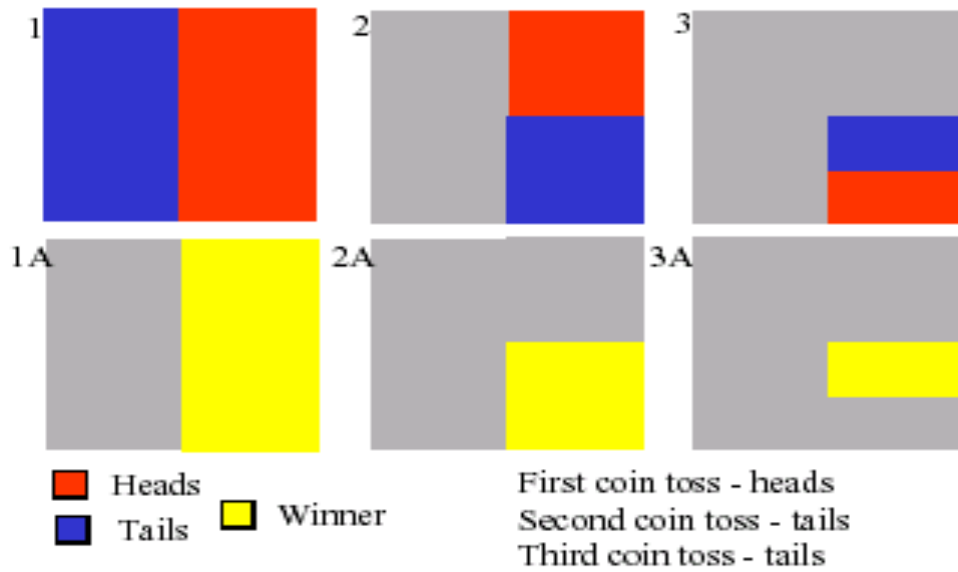


Figure 1B
Example of Random Sample Composites

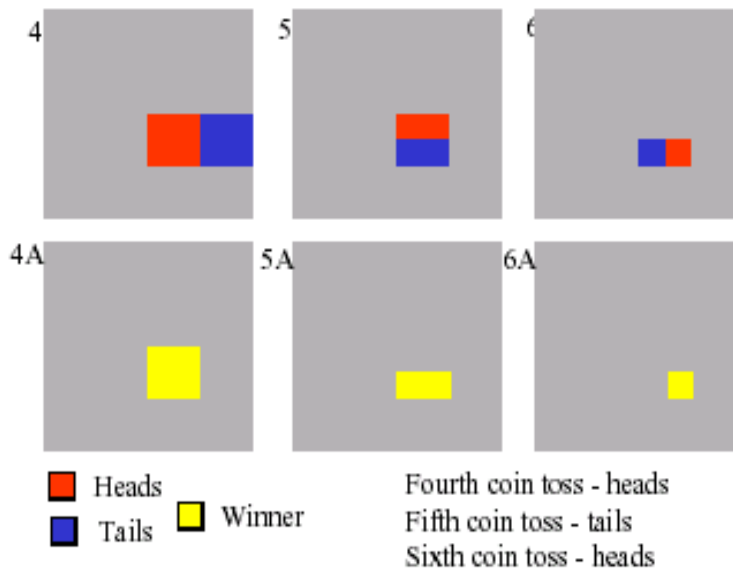


Figure 1C
Systematic Composite Sampling

A systematic composite sampling design is illustrated in Figure 2. Each field sample collected at the “A” locations is pooled and mixed into one composite sample. The process is then repeated for “B,” “C,” “D” locations and so on. The relative location and size of each individual field sample (such as “A”) should be the same within each block.

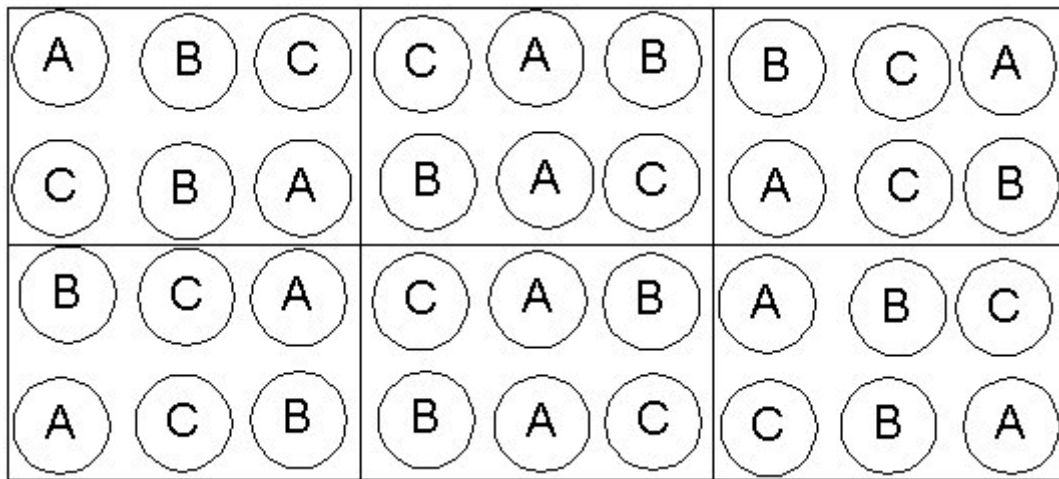


Figure 2
Example “A” of Systematic Sample Composites

A second systematic composite design is illustrated in Figure 3. This sample design involves collecting and pooling samples from *within* a grid (See Figure 3). Each field sample collected at the “A” locations is pooled and mixed into one composite sample. The process is then repeated for “B,” “C,” “D” locations and so on. The relative location and size of each individual field sample (such as “A”) should be the same within each block.

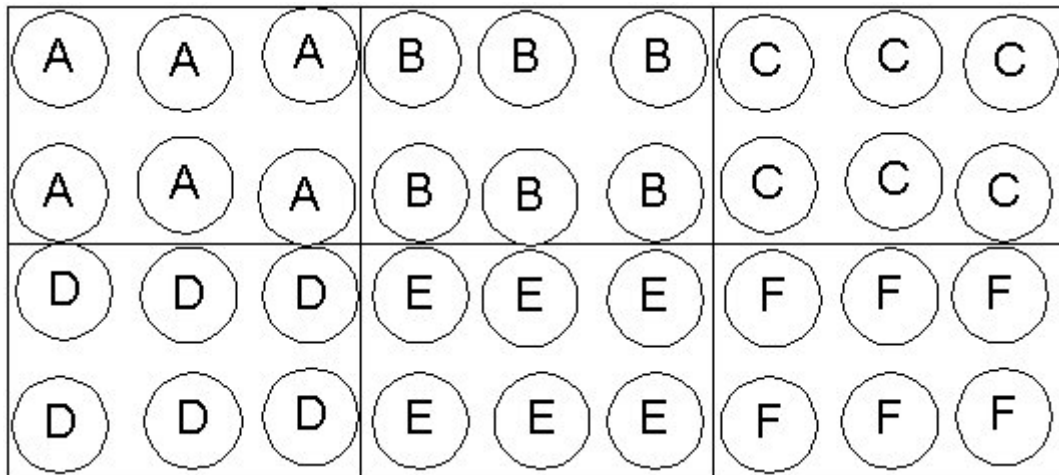


Figure 3
Example “B” of Systematic Sample Composites

For both assessment and post-decontamination sampling, either simple random composite sampling or systematic composite sampling may be used where contamination is expected to be relatively evenly dispersed throughout a given area, as described above, except the consultant shall selectively choose sample locations that represent the highest potential contamination, in accordance with the hypothesis being tested.

Composite Decision Level

If composite sampling is used, the following procedure shall be used for detecting hot spots to determine if one or more of the individual samples making up the composite could exceed the cleanup level, but remain undetected due to “dilution” that results from the compositing process.

The approach assumes the underlying distribution is normal and the composite samples were formed from equal-sized individual samples. In the following equations, CL represents the cleanup level that cannot be exceeded in any individual sample. It is assumed that the analytical limit of quantification, or quantitation limit (QL), is less than the cleanup level. For any laboratory result (X_i) from a composite sample formed from individual samples (g), the following rules shall be assumed:

$$\underline{CL}$$

1) If $X_i < g$ then no individual sample (g) shall be deemed greater than the CL

2) If $X_i > CL$ then at least one sample *must* be, and as many as all individual samples *may* be greater than the CL

If it is determined that one or more individual samples making up the composite exceeds the cleanup level, all areas represented by the composite sample shall be considered to exceed the cleanup level unless a discrete sample of any individual area demonstrates that the cleanup level has been met in that area.

ATTACHMENT TO APPENDIX A
METHAMPHETAMINE LABORATORIES
SAMPLING METHODS AND PROCEDURES
SAMPLING THEORY

Sampling Theory

The type of sampling used for the property described in this protocol is a type of sampling recognized as “authoritative” sampling. Authoritative sampling is a nonstatistical sampling design that does not assign an equal probability of being sampled to all portions of the population. Consultants using this protocol will have a prior knowledge of the property to be sampled. The prior knowledge, in the hands of a competent consultant, permits immediate inclusion/exclusion of sampling areas, based on professional judgment. As such, the weight of validity of the data gathered with authoritative sampling is largely dependent on the knowledge and competency of the sampler.

With authoritative sampling, it is not possible to accurately estimate the concentration variance within a property as a whole. Also, due to its subjective nature, the use of authoritative sampling to demonstrate compliance with a regulatory standard is generally not advisable except in those cases that are anticipated to be well defined (small volumes of waste and where contaminants in the property under study is either well above or well below the cleanup level). The American Society for Testing and Materials (ASTM) Method D6311-98 (2003), *Standard Guide for Generation of Environmental Data Related to Waste Management Activities: Selection and Optimization of Sampling Design*, recognizes two types of authoritative sampling: judgmental sampling and biased sampling; both of these sampling theories are used in this protocol.

Judgmental Sampling

The goal of judgmental sampling is to use process or site knowledge to choose one or more sampling locations to represent the “average” concentration within the context of the sampling area. Judgmental sampling designs can be extremely useful and cost-effective *if* the consultant choosing the sampling locations has sufficient knowledge of the history of the drug laboratory under study. It is recognized that the sampling method is not entirely objective since the consultant choosing the sampling locations could possibly intentionally distort the sampling by a prejudiced selection, or if their knowledge in the drug laboratory in question is wanting. In those cases, judgmental sampling can lead to incorrect results being presented to the consultant.

Biased Sampling

Biased sampling is the type of authoritative sampling that intends not to estimate average concentrations or typical properties, but to estimate “worst” or “best” cases (as described in ASTM Method D6051-96 (2001), *Standard Guide for Composite Sampling and Field Subsampling for Environmental Waste Management Activities*). As described later in this protocol, the aim of the consultant performing post-decontamination sampling is to demonstrate the worst-case scenario in the drug laboratory. The term “biased,” as used here, refers to the collection of samples with expected high concentrations. For example, a sample taken at the source of the actual “cook,” known

release, spill or storage area could serve as an estimate of the “worst-case” concentration found in the functional space. This information could be useful in identifying the contaminant and estimating the maximum level of contamination likely to be encountered during a cleanup. Biased sampling, while having the ability to cost-effectively generate information, has similar philosophical disadvantages to that of judgmental sampling.

Establishing Hypothesis Testing

The foundation for the usefulness of any sampling protocol rests upon the establishment of appropriate data quality objectives (DQOs). Without such DQOs, sampling occurs in a vacuum and the strength of the results of the sampling may be extremely limited.

The DQOs are, in turn, driven by a thought process that proceeds from defining the problem, then quantifying the degree of the problem, defining what decisions are to be made based on the resulting data, and the degree of quality needed to ensure that the decision goals can be met. All sampling has error; all analysis has error. No realistic sampling and analysis protocol has a 100% guarantee of definitively characterizing any area or condition. Therefore, a realistic sampling and analysis protocol is one that minimizes error, and optimizes cost effectiveness, while increasing the probability that the DQOs will be met.

This sampling protocol begins with the end in mind; it is based on asking specific questions, and conducting sampling and analysis to answer those questions. In general, this protocol will rely heavily on maximizing the use of existing law enforcement, investigation, analytical and historical information (including process knowledge), thus reducing unnecessary, costly data-gathering activities, while at the same time ensuring that building occupants and the public are not placed at unnecessary risk. The protocol is not a substitute for professional judgment, but must be utilized by cognizant professionals in the application of their professional skills. Neither is the method a “cook-book” recipe that if followed, decontamination is guaranteed, and risks are assumed to be zero. The evaluation of any specific area must necessarily be based on the totality of the circumstances.

This protocol has been divided into two distinct sets of DQOs; one for the preliminary pre-decontamination sampling) and one for the post-decontamination sampling. The essential difference between the two lies in the hypotheses that are being tested.

Pre-Decontamination sampling

In pre-decontamination sampling, the question that is being asked is “Is there evidence of the presence of methamphetamine production in this area?” The assumption (hypothesis) is that the area is clean i.e. “compliant,” and data will be collected to find support for the hypothesis. Data (such as samples) are collected to “prove” the area is compliant. Sampling, if it is performed, is conducted in the areas potentially containing the highest possible concentrations of contaminants. Any data that disproves the hypothesis, including police records, visual clues of production, storage, or use or documentation of drug paraphernalia being present, is considered conclusive, and leads the consultant to accept the null hypothesis and declare the area non-compliant. The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of methamphetamine laboratories, to conclude the presence of methamphetamine, its precursors as related to processing, or waste products.

Post Decontamination sampling

In post decontamination sampling, the question that is being asked is “Does this area contain contaminants in excess of the regulatory standard?” The hypothesis is the area is non-compliant, and data is collected to test the hypothesis. In theory, the ability to prove the hypothesis necessarily becomes more difficult as the area becomes cleaner; and virtually impossible to prove in an area that is completely devoid of contamination. The lack of data supporting the hypothesis leads the consultant to accept the null hypothesis and conclude that the area is compliant. Therefore, the role of the consultant in post decontamination sampling, is not to demonstrate that the area is “clean,” but rather, using bias sampling, to diligently attempt to prove, that the area is not clean. The strength of evidence needed to accept the null hypothesis is great; and failure to support the hypothesis results in confidence that risks have been greatly reduced.

Decision Statement

If, based on the totality of the circumstances, the consultant finds that insufficient evidence exists to support the hypothesis that any given area is non-compliant, that area shall be deemed to be compliant with Chapter 30a of these regulations and shall be released. If objective sampling data indicates contamination is less than the cleanup level, that data may be used as *prima facie* evidence that insufficient evidence exists to support the hypothesis that any given area is non-compliant.

Composite Sampling

Composite sampling can be implemented as part of a statistical sampling design, such as simple random sampling and/or systematic sampling. The choice of a sampling design will depend upon the specific conditions of the drug laboratory being assessed.

Simple Random Composite Sampling

Figure 1 in Appendix A shows how composite sampling can be integrated into a simple random sampling design. In this figure, the sampled area could represent any surface or media about which a decision must be made (such as a series of walls, or carpeting or even contaminated soils). Randomly positioned field sample composites can themselves be randomly grouped together into composite samples. The set of composite samples can then be used to estimate the mean and the variance of the results. Because the compositing process is a mechanical way of averaging out spatial variabilities, we assume¹ the resulting concentration data to be more normally distributed than individual samples². This is especially advantageous because the assumption of the statistical tests in this protocol is that the underlying data approximate a Gaussian distribution.

The sample locations can be selected by any number of methods. The “system of halves” as described is one example discussed in Appendix A and illustrated in Figures 1B and 1C in that appendix.

Systematic Composite Sampling

An example of one kind of systematic composite sampling design is shown in Appendix A, Figure 2. The design can be used to estimate the mean concentration because each composite sample is formed from field samples obtained across the entire sampled unit (a wall, or a carpet, for example). Each field sample collected at the “A” locations is pooled and mixed into one composite sample.

The process is then repeated for “B,” “C,” “D” locations and so on. The relative location and size of each individual field sample (such as “A”) should be the same within each block.

A second type of systematic composite involves collecting and pooling samples from *within* a grid (See Appendix A, Figure 3). If there is spatial correlation between the grid blocks, compositing within grids can be used to estimate block-to-block variability or improve the estimate of the mean within a block if multiple composite samples are collected within each block. In fact, compositing samples collected from localized areas is an effective means to control “short-range” (small-scale) heterogeneity. When this type of compositing is used on localized areas in lieu of “grab” sampling, it is an attractive option to improve representativeness of individual samples.

For post decontamination, any of the above may be used, except, the consultant will purposely attempt to “high-grade” the samples (selectively choosing sample locations that represent the highest potential contamination, in accordance with the hypothesis being tested).

Composite Decision Level

One disadvantage of composite sampling is the possibility that one or more of the individual samples making up the composite could be “hot” (exceed the “cleanup level” (CL)), but remain undetected due to “dilution” that results from the pooling process. If the sampling objective is to determine if any one or more individual samples is “hot,” composite sampling can still be used.

The procedure for detecting hot spots using composite sampling is provided in Appendix A. The approach assumes the underlying distribution is normal and the composite samples were formed from equal-sized individual samples. Let CL be the “cleanup level” that cannot be exceeded in any individual sample.

If compositing is used then the number of samples that make up the composite should be limited to avoid overall dilution below the analytical limit. It is possible for a composite sample to be diluted to a concentration below the quantitation limit if many of the individual samples have concentrations near zero and a single individual sample has a concentration just above the cleanup level. The maximum number of identically sized individual samples (g) that can be used to form a composite shall not exceed the cleanup (CL) divided by the quantitation limit (QL). As a practical matter, the number of individual samples used to form a composite should not exceed five discrete samples of equal area.

Glossary of Terms

biased:

the systematic or persistent distortion of a measurement process which causes errors in one direction (i.e., the expected sample measurement is different than the sample's true value).

Data Quality Objectives (DQOs):

qualitative and quantitative statements derived from the DQO Process that clarify assessment objectives, define the appropriate type of data, and specify the tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions.

Data Quality Objectives Process:

a Quality Management tool based on the Scientific Method to facilitate the planning of environmental data collection activities. The DQO Process enables planners to focus their planning efforts by specifying the intended use of the data (the decision), the decision criteria (cleanup level) and the consultant's tolerable decision error rates. The products of the DQO Process are the DQOs.

decision error:

an error made when drawing an inference from data in the context of hypothesis testing, such that variability or bias in the data mislead the consultant to draw a conclusion that is inconsistent with the true or actual state of the population under study.

g:

any individual sample collected for submission for analysis, either as a discrete sample or as part of a composite sample.

hypothesis:

a tentative assumption made to draw out and test its logical or empirical consequences.

mean:

(i) a measure of central tendency of the population (population mean), or (ii) the arithmetic average of a set of values (sample mean).

measurement error:

the difference between the true or actual state and that which is reported from measurements.

null hypothesis:

the default alternative conclusion that must be adopted if insufficient data exists to support the hypothesis.

population:

the total collection of objects, or media to be studied and from which a sample is to be drawn.

sampling:

the process of obtaining representative samples and/or measurements of a subset of a population. Sampling is a model; inherent in sampling is error, known or unknown.

sampling design error:

the error due to observing only a limited number of the total possible values that make up the population being studied. It should be distinguished from errors due to imperfect selection; bias in response; and errors of observation, measurement, or recording, etc.

variance:

a measure of (i) the variability or dispersion in a population (population variance), or (ii) the sum of the squared deviations of the measurements about their mean divided by the degrees of freedom (sample variance).

Xi:

the laboratory analysis result for any discrete or composite sample submitted for analysis.

References

The following documents were consulted and used in the preparation of this protocol.

American Society for Testing and Materials (ASTM) Method D5756-02 (November 2002), *Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Mass Concentration.*

American Society for Testing and Materials (ASTM) Method D6044-96 (2003), *Standard Guide for Representative Sampling for Management of Waste and Contaminated Media.*

American Society for Testing and Materials (ASTM) Method D6051-96 (2001), *Standard Guide for Composite Sampling and Field Subsampling for Environmental Waste Management Activities.*

American Society for Testing and Materials (ASTM) Method D6311-98 (2003), *Standard Guide for Generation of Environmental Data Related to Waste Management Activities: Selection and Optimization of Sampling Design.*

Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup, EPA-560/5-86-017 (May 1986).

Guidance for the Data Quality Objectives Process, EPA QA/G-4 EPA/600/R-96/055 (September 1994).

RCRA Waste Sampling Draft Technical Guidance Planning, Implementation, and Assessment EPA530-D-02-002 (August 2002).

¹ Based on the central limit theorem which states that if a population is repeatedly sampled, the means of all the sampling events will tend to form a normal distribution, regardless of the shape of the underlying distribution.

² Exner JH, Keffer WD, Gilbert RO, Kinnison RR. A Sampling Strategy for Remedial Action at Hazardous Waste Sites: Clean-up Soil Contaminated by Tetrachlorodibenzo-p-Dioxin ” Hazardous Waste & Hazardous Materials 2(2):503-21, 1985.

APPENDIX B

METHAMPHETAMINE LABORATORIES

ANALYTICAL METHODS

Purpose

The purpose of this appendix is to establish standard analytical methods and procedures for use in identifying and quantifying contaminants resulting from the manufacture, storage or disposal of methamphetamine related chemicals and wastes.

Analytical Methods

The following analytical methods shall be used to determine the concentrations of chemicals in samples collected at properties used as drug labs:

1. Analysis of wipe samples for methamphetamine shall be conducted using one of the laboratories listed in this appendix, or a laboratory that uses Forensic applications employing an Isotopic Dilution approach with the d-5, d-8, or d-14 deuterated methamphetamine as an internal standard, and external calibration with authentic methamphetamine.
2. Analysis of wipe samples for iodine shall be conducted using Method 9021 or Method 6020 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.
3. Analysis of wipe samples for lead shall be conducted using NIOSH Method 9100
4. Analysis of vapor samples for mercury shall be conducted using NIOSH Method 6009. Real time monitoring by cold vapor atomic absorption or Jerome gold film technologies may also be used.

The following analytical methods shall be used to characterize liquid wastes associated with methamphetamine labs:

1. VOCs using Method 8260B in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.
2. Ignitability/flash point by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (or Method 1010 in EPA SW-846), or Setaflash Closed Cup Tester, using the test method specified in ASTM standard D-3278-78 (or Method 1020A in EPA SW-846).
3. Corrosivity as determined by the pH electrometric measurement Method 9040B in EPA Publication SW-846, by corrosivity by steel using Method 1110 in EPA Publication SW-846.
4. Reactivity using Method 9014/9034 in EPA Publication SW-846.

APPENDIX C

METHAMPHETAMINE LABORATORIES

VENTILATION SYSTEM DECONTAMINATION

Purpose

The purpose of this appendix is to establish minimum requirements for the decontamination of ventilation systems at buildings and structures that have been used as drug laboratories.

Decontamination Protocol

Decontamination of ventilation systems shall be conducted by a ventilation contractor experienced in the decontamination of ventilation systems in structures used as drug laboratories. At a minimum, the ventilation contractor shall:

1. Perform a walk-through of the structure prior to initiation of the project to establish a specific plan for decontamination of the ventilation system.
2. Follow health and safety procedures, in accordance with OSHA requirements, to protect workers and others in the vicinity of the structure during the decontamination process.
3. Place protective coverings in areas where work is being performed, including plastic or drop cloths around each area where the duct is penetrated.
4. Shut off and lock out all air handler units before working on each air conveyance system.
5. Perform a visual inspection of the interior ductwork surfaces and internal components.
6. Draw a negative pressure on the entire duct work, using HEPA exhausted vacuum filters, throughout the cleaning process.
7. Remove and clean all return air grills.
8. Beginning with the outside air intake and return air ducts, clean the ventilation system using pneumatic or electrical agitators to agitate debris into an airborne state. Additional equipment may be also be used in the cleaning process, such as brushes, air lances, air nozzles, and power washers. Controlled containment practices shall be used to ensure that debris is not dispersed outside the air conveyance system during cleaning.
9. Open and inspect air handling units, and clean all components.
10. Remove and clean all supply diffusers.
11. Clean the supply ductwork using the techniques described in item 8 above.
12. Reinstall diffusers and grilles after cleaning is complete.

13. Seal shut access points used for agitation purposes.

14. Bag and label all debris, including any filters, and properly dispose of at a landfill.

APPENDIX D

METHAMPHETAMINE LABORATORIES

INDIVIDUAL ONSITE SEWAGE TREATMENT SYSTEMS

Purpose

The purpose of this appendix is to establish a protocol for field screening, sampling, and analysis of individual onsite sewage treatment systems (IOSTS) to determine if wastes associated with illegal methamphetamine laboratories have been disposed of in the IOSTS. The appendix provides further guidance regarding the proper characterization and disposal of the contents of septic tanks that contain wastes from methamphetamine labs.

Background

The most common types of methamphetamine lab wastes that might be expected in an IOSTS include:

1. Solvents (e.g., toluene, xylene, alcohol, acetone);
2. Petroleum distillates (e.g., paint thinner, white gas);
3. Corrosives (e.g., sulphuric acid, muriatic acid, sodium hydroxide solutions); and,
4. Mixtures with residual ephedrine, methamphetamine, iodine or red phosphorus.

Field screening and sample collection shall be conducted to confirm or deny the presence of methamphetamine waste, and to ensure proper disposal of any methamphetamine waste identified.

Field Screening

Field screening of septic tanks shall be conducted if there is evidence that illegal methamphetamine lab wastes may have been disposed of into an IOSTS. Evidence of illegal methamphetamine lab wastes disposal into an IOSTS includes, but is not limited to, the following:

1. Witness statements;
2. Stained or etched sinks, bathtubs, toilets;
3. Chemical odors coming from the IOSTS plumbing or tank; or
4. Visual observations of unusual conditions within the septic tank (“dead tank”); or, stressed or dead vegetation in a drain field.

Initial field screening shall consist of the following:

1. Monitoring the septic tank for volatile organic compounds (VOCs) using a photo ionization detector (PID), a flame ionization detector (FID), colorimetric tubes or

other appropriate meter or testing device.

2. Testing the pH of liquid in the septic tank using pH paper or a pH meter.

Additional field screening may be conducted, at the discretion of the contractor, to further investigate the possible presence of drug lab waste.

Sample Collection

If field screening indicates that drug lab wastes have impacted the IOSTS, samples shall be collected from the septic tank to determine if the liquids in the tank contain a hazardous waste. Samples shall be collected according to the requirements of the analytical method being used and the following protocol:

1. Prior to sampling, the septic tank must have been sufficiently excavated to indicate whether the tank consists of one or two chambers.
2. Samples from single chamber tanks shall be collected from the baffle on the outlet end of the tank.
3. Samples from dual chamber tanks shall be collected from the baffle on the outlet end of chamber one.
4. Samples must be representative of the wastes found in the septic tank. Sampling procedures may include the use of drum thieves, sludge judges or equivalent equipment. The instructions for the correct usage of the sampling device shall be followed.
5. Remove access cover from the first (or only) chamber and locate outlet baffle.
6. Move any floating surface matter away from the insertion point of the sampling device. Do not collect any matter in the sampling device.
7. Insert the sampling device into the tank, lowering it until it hits the bottom.
8. Trap the sample inside the sampling device.
9. Remove the sampling device and fill the laboratory supplied sample containers. The specific volume and type of sample container will be determined based on the type of analysis desired. For VOC analysis, two 40ml vials shall be filled, leaving no headspace.
10. Replace access cover at the completion of sample collection.
11. Samples may be collected in laboratory preserved bottles, or in unpreserved bottles. If the samples are collected in unpreserved bottles, the laboratory must be notified that the samples are unpreserved.
12. Sample containers shall be placed in a cooler with enough ice or ice packs to maintain a temperature of 4° C.

13. A Chain of Custody Record shall be maintained from the time of sample collection until final disposition. Every transfer of custody shall be noted and signed for and a copy of the record shall be kept by each individual who has signed it. Samples shall be sealed, labeled, and secured. All samples collected shall be transported directly to the laboratory. All sample documents shall be retained for the project record.

Waste Characterization

The contents of septic tanks that contain waste from drug labs are solid wastes. Prior to disposal, a hazardous waste determination must be made in accordance with these regulations.

Methamphetamine wastes in septic tanks will typically not be considered to be listed hazardous wastes (P, U, or F-listed) because the solvents have been used and there is too much uncertainty about the types, sources and original concentrations of solvents discovered in septic tanks.

The following analysis shall be conducted to determine if an IOSTS has been impacted by methamphetamine labs wastes, and if the septic tank contains a characteristic hazardous waste:

1. VOCs using Method 8260B in “Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846.
2. Ignitability/flash point by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (or Method 1010 in EPA SW-846), or Setaflash Closed Cup Tester, using the test method specified in ASTM standard D-3278-78 (or Method 1020A in EPA SW-846).
3. Corrosivity as determined by the pH electrometric measurement Method 9040 in EPA Publication SW-846, by corrosivity by steel using Method 1110 in EPA Publication SW-846.
4. Reactivity using Method 9014/9034 in EPA Publication SW-846.

Waste Disposal

Septic tank contents containing drug lab waste that have been determined to be a hazardous waste shall be disposed of in accordance with all applicable state and local requirements. Septic tank contents containing drug lab waste that have been determined not to be hazardous waste shall be disposed in accordance with all state and local requirements.

RELEASE INVESTIGATION AND REMEDIATION

If sampling provides evidence that hazardous waste has been disposed of in the IOSTS, an investigation of potential environmental contamination shall be conducted. The investigation and cleanup of soil, surface water and groundwater contamination resulting from disposal of methamphetamine lab wastes into an IOSTS shall be conducted in accordance with all applicable state and local requirements. Specific investigation requirements shall be determined through consultation the Michigan Department of Environmental Quality.

These regulations were approved by the Kalamazoo County Board of Commissioners at a regular meeting on October 17, 2000.


Lorence Wenke, Chairperson
Kalamazoo County Board of Commissioners

10/17/2000
Date


Timothy A. Snow, County Clerk/Register

10/17/2000
Date

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on May 15, 2001. Article I, Chapter 2, Section 2.01 was amended; Article I, Chapter 3, Section 3.30 was amended; Article I, Chapter 3, Section 3.31 was amended; Section 3.36a was added to Article I, Chapter 3; Section 3.46a was added to Article I, Chapter 3; Article IIIa, "Public Swimming Pool Water Quality Testing" was added.

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on October 7, 2003. Article IIIb, "Water Supply Regulations – Restricted Zones" was added. Article IIIb becomes effective November 6, 2003.

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on May 16, 2006. Article IX, "Regulations Pertaining to the Clean Up of Methamphetamine Laboratories" was added. Article IX becomes effective May 16, 2006.

Section 22. The County Clerk/Register is hereby directed to publish a Notice of the Adoption of this Amendment to the Kalamazoo County Sanitary Code in the Kalamazoo Gazette promptly after passage of this Amendment.

Section 23. This Amendment shall become effective Forty-five (45) days after publication of the Notice of Adoption.


Timothy A. Snow
County Clerk/Register

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on September 18, 2007. Article I, "Purpose, General Provisions & Definitions", Article II, "Onsite Sewage Treatment Regulations", and Article IX, "Illegal Methamphetamine Laboratories Cleanup Regulations" were added. Article I, II and IX become effective November 12, 2007.