

Kansas Home*Assist
For
Home-Based
Occupations and
Hobbies

by
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INTRODUCTION

Much progress in improving environmental quality has been made in the past 30 years in part due to government rules and regulations that have focused on the environmental effects of large businesses and communities. In the future, the governmental focus may include the environmental effects of homeowners, car owners, farmers, and small businesses. Industries have minimized their impact to our surface and groundwater. The greater threat to rivers, streams, and aquifers now comes from the cumulative effect of individuals and small businesses. Some home-based businesses and hobbies generate wastes that, if not handled properly, could harm the environment. While it may seem that your contribution to pollution is minor, effects of chemicals, runoff, and wasted water from hundreds or thousands of homes and home-based businesses in your region can really add up.

Assessing your waste stream helps identify amounts and types of waste, as well as sources of wastes generated at your home. Be aware of what your wastes are, what goes in the trash, what is hauled away, and what goes down the drain. Concentrate your efforts on processes and procedures that can decrease costs and chemical toxicity. An awareness of these things makes it easier to determine how and where waste can be reduced.

Those who are knowledgeable about environmental best management practices are more likely to reduce waste and prevent pollution. However, resources on best management practices for home-based occupations and hobbies are limited. This document is intended to help the home-based business owner and hobbyist identify environmental risks related to their business or hobby. With that information, they may consider pollution prevention measures such as material substitutions, alternative processes, waste reduction, safe wastewater and waste disposal, and water conservation.

Some counties in Kansas require home-based businesses be "registered." In all cases, these businesses need to make sure they are not in violation of any local "zoning regulations."

Water—What is the Source of Water for My Home?

In Kansas, water from our faucets may come from a municipal water treatment plant, a rural water district, or a private well. At some locations a spring or pond may be the water source. The source of water is groundwater and/or surface water. Some practices by home-based businesses and hobbies put groundwater and drinking water supplies at high risk, while others present low risk or virtually no risk at all. With careful management, the risk of groundwater and surface water contamination can be greatly reduced, often with little cost or trouble.

There are several reasons to identify and reduce contamination risks from your business or hobby. You can better protect the health of your family, prevent potential liability from groundwater or surface water contamination, maintain your property value, and avoid any difficulties in property transfer.

Your private well water is least likely to be contaminated if you follow appropriate management practices. Proper waste disposal practices are essential to avoid contamination that could affect the water supply and

health of yourself and others. The following are important factors associated with protecting groundwater:

- well characteristics
- landscape features
- land management
- drainage and seepage potential
- soil properties
- geologic features
- water quality protection measures

WELLHEAD PROTECTION

Construction, location, and proper maintenance are the most important factors in protecting water from private water wells. Ensuring an adequate water supply and acceptable quality is the responsibility of the owner/user of the well. The quality of water taken from a private well is not regulated by state or federal regulations. Kansas, however, has regulated new well construction and well repairs since 1975. Anyone who constructs (drills), reconstructs (repairs), or treats wells must be licensed and must file required reports with the Kansas Department of Health and Environment (KDHE). Call KDHE at 785-296-3565 for more information.

For those homes with private wells, the condition of your well and its location in relation to contamination sources determine the risk it poses to the water you drink. For example, a cracked well casing allows bacteria, nitrates, oil, and pesticides to directly enter the well. A spill of pesticides being mixed and loaded near the well could result in a serious contamination of your family's drinking water supply. Feedlots, septic systems, fertilizer applications, and waste storage areas can release large amounts of nitrate and may contaminate your well.

Surveys of private well water quality show that on average only 40 percent meet the safe drinking water standards for public systems. Fifty-one percent contain coliform bacteria, which indicates an exposure to the surface environment. Coliform bacteria do not thrive or even survive for long periods in an aquifer. Eighteen percent contain *E. coli* bacteria, which indicates contamination by sewage or animal manure. *E. coli* indicates a high risk of disease. About one in four private wells has nitrate exceeding the maximum contaminant level (MCL). These contaminants usually can be traced to problems with well location and/or well construction.

KDHE well drilling regulations and county sanitary codes specify a minimum 50-foot separation of the well from any source of possible contamination (check local codes). This separation distance is based on the soil's filtering capacity for bacteria and microorganisms. Many contaminants, including nitrate, volatile organic chemicals (VOCs), petrochemicals (fuel), and some pesticides, are not filtered by the soil and need substantially greater separation distances. Studies in areas with nitrogen sources show that a separation distance of at least 400 feet from the well is needed.

If an on-site well is used for a home-based business, in some cases special tests or chlorination is required by State Code. Check with KDHE for regulations regarding this subject.

Routine maintenance is required to assure that private wells with good location and construction continue to be safe. A well that is not maintained cannot be expected to reliably produce safe water.

Annual well maintenance is recommended to include the following:

- checking the well casing for cracks or leaks
- checking the well cap for water tightness
- ensuring ground surface slopes away from the well for 15 feet in all directions
- performing shock chlorination of the well and water system (or if testing indicates a need)
- testing water for coliform bacteria, nitrate, pH, and total dissolved solids; use a KDHE-certified laboratory
- keeping filtering systems in good repair and clean
- keeping home plumbing in good shape and leak free—being cautious of stagnate lines not used often such as sink sprayers

Every well needs a wellhead protection plan to assure protection of water quality, especially wells supplying water for human consumption.

A good wellhead protection plan involves careful planning and may include a primary and secondary protection area. In the primary protection area, all high-risk situations and activities are avoided, and moderate-risk activities are managed carefully. The radius for the primary protection area should be 100 feet minimum, and up to 300 feet or more is preferred. In the secondary protection area, high-risk situations and activities require additions or management practices to shift them to low or moderate risks. The radius for the secondary protection area should be a minimum of 200 feet, while 400 feet or more is preferred. Guidelines for high, moderate, and low risk are shown in extension bulletins on wellhead protection.

The Farm • A • Syst or Farmstead Assessment System, K-State Research and Extension publication EP33-48, is designed to help the landowner assess potential contamination sources and develop a wellhead protection plan. The wellhead protection plan rates the risk of activities within 500 feet of the well. The first concern is that the location meets recommended separation distances between the well and sources of contamination. Well location, with respect to potential contamination sources, is the most important factor for protection of water quality.

ABANDONED WELLS

The Kansas Department of Health and Environment administers laws regulating construction, reconstruction, and plugging of wells. Well drillers and landowners alike are required by law (K.A.R. 28-30-7) to follow these procedures, which are available from KDHE. The plugging procedure requires a plugging report (form WWC-5 or form WWC-5P) be filed with KDHE. These forms can be obtained by calling 785-296-5524 and are frequently available locally through county health or extension offices.

Many test holes and unused (abandoned) wells are located in fields, farmsteads, industrial sites, and urban areas without being properly plugged. Contaminants from the surface can travel through wells and contaminate the groundwater. Curious animals and children can enter open well casings. Landowners are liable for contamination or injury from unplugged wells or holes.

KDHE estimates more than 250,000 abandoned wells and test holes exist in Kansas. Kansas law defines an abandoned well as one that

- has not been used during the last two years
- is in such disrepair that it cannot be used
- poses a groundwater-contamination hazard

Kansas law requires that all abandoned wells and test holes be properly plugged. Proper plugging accomplishes five goals:

- restores protective barrier to minimize groundwater contamination
- removes physical hazards by removing tempting openings for curious children and animals
- restores stability to the land surface (load-carrying capacity)
- eliminates or reduces liability exposure
- protects and improves property values

Preventing well water contamination is extremely important. Once the groundwater supplying your well is contaminated, it is difficult and expensive to clean up. The only options may be to treat the water, drill a new well, or obtain water from another source. A contaminated well can also affect surrounding wells, posing a serious health threat to others.

Kansas State University Research and Extension has several bulletins on protecting your water supply. Publications from Kansas State University are available on the World Wide Web at: <http://www.oznet.ksu.edu>, by contacting your local county extension office to order the following:

- *Plugging Abandoned Wells*, MF-935
- *Plugging Cisterns, Cesspools, Septic Tanks and Other Holes*, MF-2246
- *Private Water Well Owner/Operator Manual*
- *Private Well Location and Construction*, MF-970
- *Shock Chlorination for Private Water Systems*, MF-911
- *Recommended Water Tests for Private Wells*, MF-871
- *Testing To Help Ensure Safe Drinking Water*, MF-951

For assistance, please contact :

- local health or environmental office
- county or district extension office
- K-State Research and Extension, Bio. & Ag. Engineering (785-532-5813)
- KDHE, Division of Environment, Nonpoint Source Section (785-296-4195)
- KDHE Water Well Program (785-296-3565)

Wastewater—Where Does It Go?

The most satisfactory treatment and disposal method of household wastewater is through a municipal sewage system. Where municipal systems are available, on-site systems are discouraged. In rural areas, however, most homeowners must use some type of on-site system for treatment and disposal of household wastewater.

Primarily, two types of private on-site treatment systems are used in Kansas: septic tank-soil absorption systems and wastewater stabilization ponds (lagoons). The septic system is the most common form of on-site wastewater

treatment. It is the most desirable on-site system to use if soil conditions are suitable. Since the septic tank and laterals are completely covered with soil, the system is not visible and odor is non-existent, as long as wastewater does not surface. In areas of poor soil drainage and where evaporation rates exceed percolation rates, however, it can be difficult and expensive to build soil absorption fields that will effectively treat and absorb wastewater. Lagoons should be considered for household wastewater treatment in these areas.

If a home-based business discharges its non-domestic waste to a septic system, then the business is required to complete an inventory form and submit to KDHE. For inventory forms, call KDHE at 785-296-5560.

A properly installed and maintained system for treating and disposing of household wastewater will prevent pollution to groundwater and surface water. In Kansas, on-site household wastewater systems are regulated by the county through the local

health department, planning and zoning department, public works, or other local departments. The county adopts a sanitary code, issues permits, and inspects construction. In counties that have not yet adopted a sanitary code, the guidelines set by the KDHE should be followed (KDHE Bulletin 4-2, *Minimum Standards for Design and Construction of Onsite Wastewater Systems*). Check with your local governing agency or KDHE. The codes established are a minimum. Consider whether the minimum requirement is sufficient for your site.

Some wastes associated with a home business are considered "industrial waste" and may not be disposed of in a septic system or domestic lagoon. These wastes come from "industrial activity" such as automobile service centers, auto body repair, and wood finishing. Other types of wastes such as from catering, day care, and upholstery are considered "domestic sewage" and can be disposed of in a septic tank or lagoon. Domestic sewage is sewage originating primarily from kitchen, bathroom, and laundry sources, including waste from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks. Home businesses disposing domestic sewage have special requirements or volumes that must be considered before discharge to the on-site waste system. Checking with governing agencies on the requirements of your particular situation will protect your on-site system and the environment.

Lagoons receiving industrial waste must be double-lined with a leak detection system and permitted by KDHE. A more cost effective option may be to discharge waste to a holding tank, then periodically pump and transport the waste to a municipal wastewater treatment facility, if approved. For more information, contact KDHE at: 785-296-6804.

Septic tank systems that receive, or have the potential to receive, wastewater other than domestic sewage are Class V Wells and are prohibited by the KDHE Underground Injection Control (UIC) program. On-site soil absorption systems used by multiple-family homes, office buildings, or other facilities for the treatment of domestic sewage only, are considered Class V Wells if they serve 20 or more "full-time equivalents." Volume is the concern. For more information, contact KDHE at 785-296-5560.

Some best management practices for businesses with septic systems (some of which apply to any wastewater disposal system) are as follows:

- Locate the soil-absorption field at least 100 feet from any wetland, shoreline, stream bed, or drinking water well. (County regulations regarding separation distances vary.)
- Keep good records each time your septic system is pumped, inspected, or repaired.
- Pump septic tank regularly, about every three to five years.
- Divert surface water runoff away from the soil-absorption field.
- Do not use your wastewater treatment system as a substitute for the trash can or a compost pile!
- Practice water conservation.
- Never pour hazardous chemicals, such as solvents or fuels, down the household drain.
- Seal all floor drains that could discharge process wastes to a soil-absorption system.
- Make sure the septic tank is large enough to hold at least two day's worth of wastewater.
- Install and maintain an effluent filter to prevent clogging of the soil-absorption field.
- In most cases, septic tank additives are not recommended.

Disposal of any wastes other than domestic wastes to an on-site septic system or domestic lagoon is prohibited. Never dump wastes onto the ground or into a storm drain. This practice can result in the contamination of streams, lakes, or groundwater.

Best management practices for wastewater lagoons are as follows:

- Keep the protection berm in good repair, grassed, and mowed.
- Remove excess vegetation from inside the lagoon. Do not allow cat tails, mosses, trees, or tall grasses to accumulate.
- Keep the fence in good repair, keeping all animals and persons out
- Understand how a lagoon works and notify professionals if problems occur that are not “normal” to the function of the lagoon.

Storm Water—Is It Carrying Contaminants off My Property?

Pollution reaches water from many sources and pathways, which can generally be divided into point source and non-point source pollution. Point source pollution comes from specific, single locations, such as municipal sewage treatment plants, manufacturing plants, or large confined livestock feeding operations. These sources are often easy to identify and control. Controlling point source discharges came under federal regulation in 1972. Point source discharges are required to have a federal discharge permit. It is estimated that only about 20 percent of today’s water quality problems result from point sources.

The Kansas regulations define “nonpoint source” as any activity that is not required to have a national pollutant discharge elimination system permit, and that results in the release of pollutants to waters of the state. Storm water runoff and the pollutants it carries are the most common causes of non-point source pollution of lakes, rivers, and streams. Pollutants concentrate on streets, driveways, parking lots, lawns, and farmsteads until a storm event washes them, untreated, to waterways. Another example is the leaching of nitrates or other chemicals down through the soil into domestic wells or groundwater aquifers. Major contaminants of water in Kansas include sediment, nutrients, bacteria, pesticides,

salts, minerals, and hazardous materials.

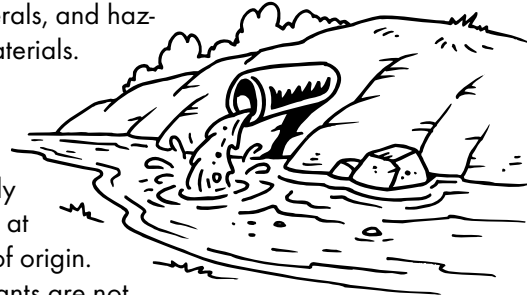
Non-point source pollution is not easily monitored at the point of origin.

Contaminants are not generally traceable to an exact source.

Non-point source pollution generally occurs:

- over a large area,
- over an intermittent period of time, and
- from diverse sources, such as farms, ranches, transportation corridors, and urban areas.

Non-point source pollution is difficult to manage and control. The sources of pollutants are diverse and the people contributing are many. Many water quality specialists believe most future improvements in water quality in the United States will be made by reducing non-point source pollution. Self-assessments, such as those presented in this document, can help with ideas for minimizing non-point sources of pollutants. Your voluntary actions will reduce chances of contaminants reaching surface or groundwater.



Waste from My Home Business -- Is It Hazardous or Can It Go to the Landfill?

WASTE DEFINED

In the simplest sense, waste is anything left over or generated as a result of a process, that you do not want any more. If the waste is chemical or biological in nature and potentially dangerous to humans, then it may be considered a hazardous, infectious, or medical service waste.

It is important that your chemicals are labeled, used, stored, and disposed of in a way that will not be hazardous to human health or the environment.

SOLID WASTE DEFINED

Solid waste is the term used to describe non-hazardous wastes, such as garbage, refuse, or other discarded materials, that are accepted at a landfill or transfer station. These wastes must be removed from a residential or business storage to a landfill or transfer station at least once a week. Due in part to past landfill contaminations, new landfills are required to install plastic or clay liners, and leachate collection systems, as well as monitor the groundwater and surface water for harmful chemicals. These landfills normally accept non-hazardous business and domestic (household) wastes, with some waste streams requiring a “special waste authori-

zation.” Hazardous wastes are generally prohibited at landfills. Permitted construction and demolition (C&D) landfills can accept solid wastes resulting from the construction, remodeling, and demolition of structures. These C&D landfills cannot accept other types of municipal solid or hazardous wastes.

Unfortunately, the average U.S. resident produces more than four pounds of solid waste per day, according to the Environmental Protection Agency (EPA). This is twice the average amount of waste produced by individuals in other industrial countries, and businesses account for about 60% of the trash volume at landfills. Businesses and consumers can help cut waste by changing what and how much they buy, and reusing and recycling as much as possible. Some states require the reduction of solid waste to lengthen landfill life and to reduce waste disposal costs. Waste reduction requires cutting back the number and volume of discarded products.

2000 figures indicate that Kansans generated about 6.4 pounds of waste per day per person; this is nearly one and one-half times as much as the 4.4 pounds per day national average.

Nationally about 37% of households recycle. In Kansas, 2000 recycling rates in Sedgwick County were about 15%. (Facts from the Wichita Eagle, 1/15/01)

I burn my wastes. Is there any problem with that?

Burning of domestic solid wastes (combustible forms only) is acceptable in some areas in Kansas, but in other areas it may be prohibited. Many counties require a burn permit and prohibit burning on windy days or in extremely dry conditions. Contact your local fire department, KDHE district office, or environmental office with questions. Remember, when you burn your wastes, you may be converting a solid waste problem to an air quality problem.

Burning of hazardous wastes is not a safe or acceptable practice at any time.

On-site burning of business-generated solid wastes is not an acceptable disposal option.

HAZARDOUS WASTE DEFINED

Many home-based businesses generate hazardous wastes. In Kansas, hazardous waste regulations are enforced by KDHE. Statutes place the primary responsibility for ensuring that hazardous wastes are properly managed on the person who generates the wastes. This means that as the generator, **you** need to first make a determination of whether your waste is hazardous or not and why it is hazardous.

Remember, you are responsible for determining if your waste is hazardous or non-hazardous.

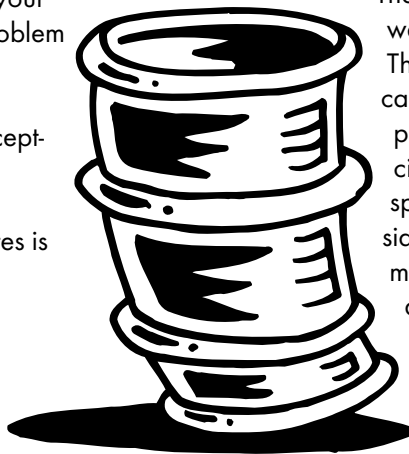
Chemicals and wastes generated as a result of your casual hobby are considered “residential household hazardous wastes” and can be disposed of via the local household hazardous waste collection program. For more information, call your local health department or environmental management office.

So what makes my waste hazardous?

Wastes are hazardous if they are either “listed hazardous wastes” or “characteristic hazardous wastes.”

Listed hazardous waste: The EPA has assigned certain materials to specific “lists” because of their predictable hazardous nature in specific processes. The four EPA hazardous waste lists are designated by the letters F, K, P, and U, which refer to the types of waste regulated. For example, the F list contains “hazardous wastes from non-specific sources” and includes generic industrial process wastes resulting from degreasing, solvent usage, electroplating, and heat-treating, along with certain dioxin-contaminated wastes from the production of organic chemicals.

The K list contains “hazardous wastes from specific sources.” The P and U lists consist of “discarded commercial chemical products, off-specification species, container residues, and spills,” some of which are considered “acutely toxic.” This means these materials are so dangerous that empty containers and liners must be triple rinsed or cleaned by an equivalent method.



If a listed hazardous waste is mixed with non-hazardous solid waste, all of the mixture may qualify as hazardous waste. Therefore, it is good practice to tightly control hazardous materials as a separate waste stream. In addition, segregation increases the potential for reuse, recycling, or treatment.

Characteristic hazardous waste: These waste streams are classified according to a recognizable hazard associated with them, such as ignitability, corrosivity, reactivity, and/or toxicity. An ignitable hazardous waste is a material that has a flashpoint of less than 140 degrees Fahrenheit or combusts upon exposure to the environment. A corrosive hazardous waste is a waste that has a pH value of either less than 2.0 or greater than 12.5. Reactive wastes may react violently with air or water, are unstable in normal environmental conditions, react with water or corrosives to produce toxic gases, or are explosive. To determine if a waste is toxic, a sample of the waste must be tested at a KDHE-certified laboratory. A toxic characteristic leaching procedure, TCLP, commonly called a "T-clip" test, will determine if the waste exceeds the regulatory limits and is considered hazardous due to toxicity. A list of KDHE-certified laboratories can be provided by calling SBEAP at 800-578-8898 or downloading it from the *Hazardous Waste Generator Handbook* at http://kdhe.state.ks.us/waste/bwm_download_page.html#tgds.

So now what do I do?

Inventory your wastes and gather your material safety data sheets (MSDSs). Compare what you know about the wastes and what is listed on the MSDS to the information about listed and characteristic hazardous wastes. In some cases laboratory analysis may be needed. If you are a hazardous waste generator, then you may want to request a copy of the *Hazardous Waste Generator Handbook*. This book, published by KDHE, contains additional information you need to know. Then in order to identify what regulations apply to your generation category, determine the total amount of hazardous waste generated in calendar month, and figure the amount in storage from previous months. The handbook can be obtained by calling the Small Business Environmental Assistance Program (SBEAP) at Kansas State University at 800-578-8898, or you can download it from http://www.kdhe.state.ks.us/waste/bwm_download_page.html#gds.

An MSDS (Material Safety Data Sheet) is documentation required for hazardous materials. It identifies certain reportable hazardous ingredients, safety and health considerations, and safe handling procedures. The supplier or manufacturer furnishes these documents to the user.

Categories and requirements of hazardous waste generators

What generator class you are in is dependent upon how much waste is generated at your facility. In Kansas, there are three classes: small quantity, Kansas, and EPA. You must determine your generator category to determine which regulations apply to you. Your facility may change its status from one category to another, depending on how much waste it generates in a given period.

Most home-based businesses that generate hazardous wastes will be considered small quantity generators or SQGs. SQGs generate less than 55 pounds (about five to seven gallons of a liquid) total of hazardous waste in a calendar month. SQGs should never accumulate more than 2200 pounds of hazardous waste at any one time.

Small quantity generators as defined above are required to handle the hazardous waste they generate in an environmentally sound manner, but are not subject to any notification or reporting requirements. SQGs must identify all of the hazardous waste they generate. Small quantity generators may use any of the following alternatives to handle their hazardous wastes when disposed of in quantities less than 55 pounds (25 kg): recycling, reuse, reclamation, disposal at a permitted sanitary landfill, neutralization and discharge to the sanitary sewer only with permission of the city, and disposal at a permitted hazardous waste disposal facility.

A few Kansas counties, such as Douglas, Johnson, Reno, and Sedgwick, operate collection program for SQGs. These programs offer SQGs an environmentally sound and economically feasible disposal option. Most programs are operated in conjunction with the local household hazardous waste program and require

pre-registration, so contact your local health or environmental management office for more information.

SQGs that accumulate more than 55 pounds must recycle, treat, or dispose of their wastes either on site or at a hazardous waste management facility. In addition, these generators must abide by packaging, labeling, marking, and shipment regulations. All containers should be marked with the words "Hazardous Waste," dated, and inspected weekly. The small quantity generator regulations are located at K.A.R. 28-31-4(m).

Small quantities of hazardous waste may NOT be disposed of by dumping on the surface of the ground or into surface waters, burying in the ground at an unpermitted site, or using such materials as solvents for killing weeds.

Kansas generators are generally facilities that generate 55 lbs (25 kg) or more of hazardous waste but less than 2,200 lbs (1,000 kg) in a calendar month.

EPA generators are facilities that generate, in any single month or accumulate at any time, 2,200 lbs (1,000 kg) or more of hazardous waste. Kansas and EPA Generators must register with KDHE and are subject to numerous regulations that can be found in the *Hazardous Waste Generator Handbook*, or the K.A.R. 28-31-1 through 16. For more information, call KDHE at 785-296-1600, or SBEAP at 800-578-8898.

Household hazardous wastes (HHW) are those hazardous wastes that are generated by a residential home. Wastes generated by a home-based business do not qualify; however, pure hobbyist wastes may. Most counties in Kansas have a means for disposal of HHW. Contact your local health or environmental management office for the times and location in your area.

Empty containers: A container that has held hazardous material is not considered a hazardous waste as long as all the waste/material has been removed by pouring, pumping or aspiration, and there is no more than a one-inch residual on the bottom or no more than 3.0 percent by weight of the contents remain in a 110-gallon or less container. For more details, see the *Hazardous Waste Generator Handbook*. Containers holding acutely hazardous waste must be triple rinsed.

MEDICAL SERVICE (INFECTIOUS)

WASTES DEFINED

In Kansas, medical service waste is the term used to describe "those solid waste materials which are potentially capable of causing disease or injury and which are generated in connection with the human or animal care through in-patient and out-patient services" (K.A.R. 28-29-27). These wastes, also known as regulated medical wastes, infectious wastes, biohazard waste, and wastes regulated under Occupational Safety and Health Administration (OSHA) as blood-borne pathogens, include items such as used needles and bandages, or swab-type items contaminated with human or animal fluids such as blood, saliva, urine, or feces.

Under the rules in Kansas, these items should be placed in properly designed containers, available from your waste or supply company, and handled in one of the following manners:

- Treated or sterilized medical waste can be sent to the permitted sanitary landfill.
- Untreated medical waste needs to be "red bagged" and can only be sent to the landfill with special authorization from KDHE.
- Dispose through a medical waste disposal company (check the Yellow Pages).
- Dispose of as a hazardous waste.
- Incinerate in a permitted hospital/medical/infectious waste incinerator

For more information, request a copy of *Medical Service Waste*, technical guidance document SW 00-01, from SBEAP at 800-578-8898, or download at http://www.kdhe.state.ks.us/waste/bwm_download_page.html#tgds.

Do Air Regulations Apply to My Home-Based Business?

Most home-based occupations and hobbies do not emit enough pollutants to fall under any of the air regulations. For example, if your shop uses nine tons or more of paints and solvents annually, then you should calculate whether your shop has the potential to exceed

emission thresholds. If large amounts of lead or other toxic chemicals or metals are processed, these regulations may also apply. The air regulations are located in the K.A.R. 28-19. If you have questions, contact SBEAP at 800-578-8898 or KDHE at 785-296-1570.

What Is EPCRA and Does It Apply to a Home-Based Business?

Any facility, public or private, that has hazardous materials at or above established threshold amounts may be subject to the Emergency Planning and Community Right-to-Know Act (EPCRA). This law is complex and has multiple reporting requirements. The purpose of EPCRA is to encourage emergency planning efforts at the state and local levels. This law also allows the public's access to information about potential chemical hazards that may exist in their communities.

Most home-based occupations will not store or use hazardous materials of reportable quantities. Typical reportable quantities are 10,000 lbs. One hazardous material that might be reportable from a home-based business is lead. If you use more than 100 lbs. of lead in a calendar year, then you are required to report this.

Contact the SBEAP at 1-800-578-8898 if you need help determining whether you have reportable quantities of hazardous materials.

General Pollution Prevention, Spill Prevention and Response, and Energy Conservation

GENERAL POLLUTION PREVENTION

Pollution prevention is the practice of preventing and minimizing the generation of pollution, rather than treating it once it has been created. Pollution prevention (P2) is often thought of as mainly an environmental concept; however, its economic impact can be sizable when you consider it is more cost-effective to prevent waste rather than develop expensive and risky treatments to ensure that it does not create health and environmental threats.

TIPS:
When you purchase a product, ask yourself:

1. Do I really need this product?
2. Read the label — does it contain hazardous materials?
3. Is there a less hazardous alternative that will do the same job?
4. Does the product require safety equipment?
5. Am I buying more than I need for the job?
6. Can I safely store the product at my home?
7. Can I safely dispose of excess product or find another party that can use it up?

P2 can help your home-based business or hobby reduce the following:

- Hazardous wastes
- Waste disposal costs
- Raw material purchases
- Short-term liabilities associated with employee health issues
- Long-term liabilities from improper hazardous waste disposal

Look for these and other specific pollution prevention tips within each section of this module.

- Substitute less toxic or non-toxic substances for cleaning.
- Identify technologies or processes that can minimize waste generation.
- Keep storage and work areas clean and well organized, and keep all containers properly labeled.
- Inspect materials upon delivery, and immediately return unacceptable materials to the supplier.
- Keep accurate records/inventory of raw material usage. Mark the purchase date on each container and practice "first in, first out" so that older materials are used up before new ones are opened. If you have to dispose of an unused outdated item, it can be like paying for it twice—

once when you purchased it, and another time when you dispose of it.

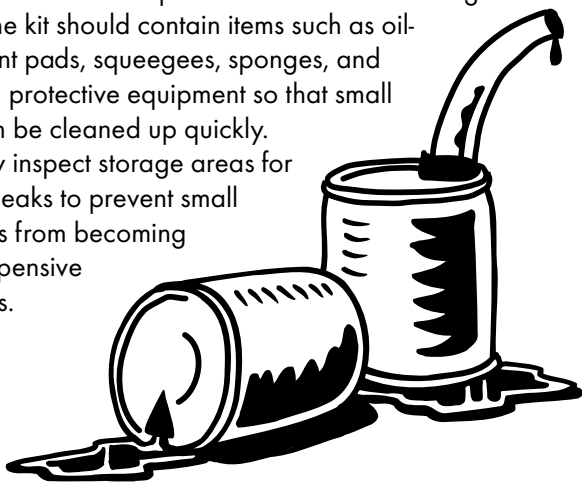
- Use or install spill basins or secondary containment units that will prevent environmental contamination in the event of a spill.
- Practice preventative maintenance to avoid future losses. Periodically inspect containers and equipment for leaks.
- Keep all containers covered to prevent evaporation, contamination, spillage, or drying out of the contents.
- Keep waste streams separate for reuse, recycling, or treatment. Keep non-hazardous materials from becoming contaminated with hazardous wastes.
- Conserve water; use water-saving devices on toilets and showers.

The term “best management practices” (BMP) is used throughout this module. These are not always required practices, but rather recommended practices, resulting in environmental protection and/or economic savings.

SPILL PREVENTION AND RESPONSE

In order to prevent environmental contamination, home-based businesses or hobbies that utilize, store, and dispose of hazardous materials or wastes should be prepared if a spill occurs. Using or installing spill basins or secondary containment units can prevent environmental contamination in the event of a spill. These are simply leak-proof units that the hazardous material or waste is stored in or on, that are large enough to contain the spill or leak. Use of secondary containment is not a requirement, but rather a BMP, in most cases.

Purchase and store a spill kit in the chemical storage area. The kit should contain items such as oil-absorbent pads, squeegees, sponges, and personal protective equipment so that small spills can be cleaned up quickly. Routinely inspect storage areas for spills or leaks to prevent small problems from becoming large expensive problems.



If you do not have a “spill kit” and a spill occurs, use kitty litter, vermiculite, newspaper, rags, or dirt to contain and absorb the liquid. NEVER wash it down the drain or into the gutter. Determine whether the waste is hazardous or not. If non-hazardous, place it in a plastic bag or sealable can and put it in the trash. If hazardous, then see Hazardous Waste section at the front of this publication to determine disposal options.

Surface cleaning done as a result of an oil or hazardous material spill needs to be contained and evaluated for disposal as a hazardous waste. If a hazardous material release has occurred, the local fire department should be contacted, as only trained personnel should assess and cleanup most spills. Cleanup material resulting from a spill should be handled as a hazardous waste, unless it has been evaluated and tested non-hazardous.

Spill Response Should Be Done By Trained Individuals When approaching a spill of unknown origin:

1. Assess the risks
2. Use protective clothing
3. Confine the area or spill
4. Stop the source
5. Clean up the spill
6. Decontaminate
7. Report the spill

ENERGY CONSERVATION

Energy conservation should be a concerted effort at all times, not just when it hits our pocketbooks. Consider these tips for energy conservation:

- When possible, adjust curtains, attire, work patterns, and the use of heat-generating equipment.
- Use rechargeable batteries in business products.
- Replace existing lighting with energy-efficient bulbs. Compact fluorescent bulbs, readily available at department stores, can replace incandescent bulbs in many light fixtures.
- When replacing equipment, look for energy-saving features and ratings.
- In most case, energy is saved if equipment is turned off when not in use for extended periods.
- Set up an energy audit.
- Train employees to be energy-wise.