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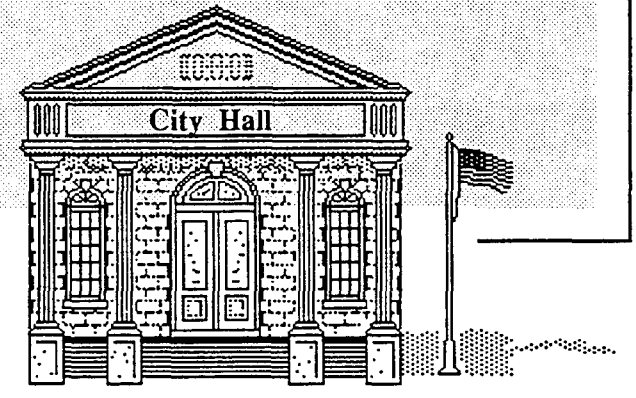
Everything You Wanted To Know About Environmental Regulations . . .

But Were Afraid To Ask



A Guide For Kansas Communities

September, 1993

U.S. Environmental Protection Agency
Region VII Information Resources Ctr
726 [illegible]

U.S. Environmental Protection Agency
Region VII
Information Resource Center
901 N. 5th [illegible]

EPA 907-R-93-009

Dear Community Representative:

In developing this document, "Everything You Wanted To Know About Environmental Regulations But Were Afraid To Ask," we have attempted to provide you with information that will assist you in protecting the environmental resources of your community.

Whereas the Environmental Protection Agency (EPA) and the Kansas Department of Health and Environment (KDHE) are responsible for seeing that regulatory requirements are met, community officials are responsible for regulatory compliance. To assist community officials in doing their job, the EPA, KDHE and a network of assistance providing agencies have recognized the need to build local capacity through outreach -- technical assistance and information. With such a partnership, we look forward to working with you to protect the environment in, and surrounding, your communities.

Sincerely,

William Rice

William W. Rice, Acting Regional Administrator
Region 7 Environmental Protection Agency

Robert C Harder

Robert C. Harder, Secretary
Kansas Department of Health and Environment

Everything You Wanted To Know About Environmental Regulations But Were Afraid To Ask

Comments and Evaluations

Please indicate which handbook you received:

_____Tribal _____Iowa _____Kansas _____Nebraska

Please indicate your affiliation: _____Community _____State

_____Assistance Provider _____Federal _____Other

Did you find the handbook helpful?

Did you learn about any regulations you were unaware of? If so, which one(s)?

Did you make any new contacts as a result of this handbook?

What improvements would make the handbook more helpful to you?

Thank you for your time and thoughts. Please fold this page on the dotted line, and mail (with a stamp) to the address on the other side.

Water Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, Kansas 66101

Attn: WPAB/WIAS

Everything You Wanted To Know About Environmental Regulations

But Were Afraid To Ask

A Guide For Kansas Communities*

September, 1993

*This handbook was produced through a joint effort of the Region 7 office of the Environmental Protection Agency (EPA) and the Kansas Department of Health and Environment (KDHE). The handbook is directed towards communities with populations of 10,000 and less, and to the organizations that assist these communities. The Kansas State Board of Agriculture (KSBA) also provided assistance in reviewing the section on Pesticides.

Preface

This handbook was prepared for use by officials of communities with populations of 10,000 and less, and to the organizations that assist these communities, as a quick reference to the environmental issues facing their constituencies. If you are an official of a larger community, you will need, as a minimum, to comply with the enclosed requirements. It is likely you may need to meet additional requirements.

This handbook provides only a summary of basic environmental information. It is not a definitive statement to the specific ways in which a community may assure environmental compliance; it is a quick guide to the environmental programs that typically apply to most small communities.

The requirements and guidance presented in this handbook are based on federal regulations and/or guidance in place in mid-1993. It should be expected that some of these requirements/guidance will change in the future.

The handbook is organized according to key program areas. After highlighting services available to you from Region 7, the handbook explores Cross Media, Air, Land and Water programs. Cross media programs are those that can reach across any of the other program areas. Definitions and acronyms are provided at the end of the handbook.

This document was initially prepared in 1990 by the Midwest Assistance Program (MAP) under contract to the Environmental Protection Agency, Region 8. It was expanded by the Region 8 Small Community Work Group in early 1991.

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EPA REGION 7 SERVICES

Toll-Free Access

Residents of Iowa, Kansas, Missouri, and Nebraska can call the Environmental Protection Agency, Region 7 Environmental Action Line by dialing 1-800-223-0425. During the week, operators can connect you to appropriate contact persons or programs. After hours, and on the weekend, you will be able to leave a message.

EPA Regional Library

A number of services are available to residents of Region 7 from EPA's regional library in Kansas City, Kansas. The library is available for use from 9:00 a.m. to 5:00 p.m. Monday-Friday. The regional library provides interlibrary loans through the Online Computer Library Center (OCLC), or by using a standard American Library Association (ALA) form available through your public library.

The public can also access the library via the Online Library System (OLS), a computer catalog of EPA's library network. An information handout about OLS and how to use it is available from the library. To contact the library, call 1-913-551-7241. or 1-913-551-7358.

KDHE Library

KDHE has a pamphlet library containing over 3,000 titles covering important health and environmental issues. Brochures, booklets, posters and fact sheets are available on environmental topics such as water conservation, recycling, radon, asbestos, and lead. Similar topics are covered in the audiovisual library, which contains over 2,000 titles. Some titles are available in both video and 16 mm formats. For more information or a copy of the 1992-1994 KDHE Audiovisual and Pamphlet Catalog, call KDHE's Office of Government and Community Relations, Health and Environment Education Section at 1-913-296-1226.

Speaker's Bureau

A number of EPA employees have volunteered to be available to speak on environmental topics. If you are interested in having someone speak to your group on a particular environmental issue, call 1-913-551-7003.

CROSS MEDIA PROGRAMS

POLLUTION PREVENTION

EPA's Pollution Prevention approach

The Pollution Prevention Act of 1990 establishes pollution prevention as national policy--EPA's preferred approach for protecting human health and the environment. The primary goal of pollution prevention is preventing or reducing the generation of wastes and pollutants at the source. Potential pollutants or wastes that cannot be prevented should be recycled whenever possible. Potential pollutants that cannot be prevented or recycled should be treated in an environmentally-safe manner. Disposal or other release into the environment should be used only as a last resort and should be conducted in an environmentally-safe manner. Instead of using traditional pollution treatment and control methods to stop existing pollutants from reaching the environment, pollution prevention aims to anticipate and avoid the generation of pollutants in the first place.

Actions For Communities

Pollution prevention and cleaning up the environment cannot be accomplished by wishing, by court rulings or EPA pronouncements alone. What we need is a unified effort. Community leaders can develop policies that encourage environmental awareness and provide mechanisms to help build the ethic of preventing pollution. Small communities are in a unique position to make things happen and to win the battle against pollution. Local governments can encourage and stimulate the practice of pollution prevention at all levels: by industry and manufacturing, by private and public business (including agriculture, transportation, energy generators, hospitals and schools), by communities and individuals.

Here are suggestions on how community leaders can fight pollution and preserve environmental quality, human health and natural resources:

-Set pollution prevention as a major goal and integrate the concept into governmental activities. Publicly recognize pollution prevention as a priority. Practice what you preach--set an example.

-Educate the public, as well as business and industry, about pollution prevention. Create an awareness of the profitability and benefits of pollution prevention through greater efficiency and stewardship of natural resources.

-Develop programs that provide environmental alternatives:

-Recycle paper, glass, plastic, aluminum, scrap metal, motor oil and yard wastes.

-Use less energy. Set back thermostats; insulate; buy energy-efficient lighting and appliances and make creative use of daylight.

-Use less water. Be conservative. Use ultra-low flush toilets; install water meters; repair leaks; review maintenance schedules and use water conserving landscaping.

-Buy energy efficient automobiles and other fleet vehicles and keep them tuned. Carpool, bike, walk or use mass transit when possible.

-Encourage sustainable agriculture. Take advantage of natural methods of protection. Apply pesticides, such as insecticides and herbicides, carefully if they must be used.

-Reduce smoke, radon, asbestos and other indoor-air pollutants.

-Control hazardous waste. Reduce toxic use; encourage product substitution and environmentally sound operation modifications.

-Buy recycled or recyclable products. Seek out reusable, recyclable or returnable packages. Incorporate purchase of these products into procurement policies and practices.

-Reduce risks from lead. Be careful around surfaces covered with lead-based paint, and be cautious when children are nearby during renovation or rehabilitation of old buildings. Be sure drinking water does not contain harmful levels of lead or other contaminants.

-Plant trees, shrubs and indoor plants. They replenish the earth's oxygen supply and clean the air by removing pollution.

Additional Information

Regional Contact:

Pollution Prevention Program:
Waste Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101

1-913-551-7050

State Contact:

Pollution Prevention Office
KDHE
Forbes Field, Building 740
Topeka, KS 66620-0001

1-913-296-6603

PUBLIC-PRIVATE PARTNERSHIPS

As a community leader, you face the prospect of building or upgrading facilities to meet environmental needs. You already may be feeling the squeeze of growing environmental protection needs and expectations coupled with decreased funding for infrastructure projects. As the pressure grows to minimize rate shock for facility users, local community leaders must find new ways for their communities to hold down costs and build public support for necessary additional expenses. Public-private partnerships offer one solution.

"The Self-Help Guide for Local Governments" has been written to acquaint local officials with the concept of public-private partnerships, their benefits and the steps a community must take to build relationships with the private sector. This information will be conveyed in the following sections:

Public-Private Partnerships: What and Why

A public-private partnership is a contractual relationship between a public and private partner that commits both to providing an environmental service. The private sector can be involved in a variety of ways, from the initial design of a facility to its daily operation and maintenance.

Although each arrangement is unique, most public-private partnerships fall into one of five categories. These types are contract services, turnkey facilities, developer financing, privatizations and merchant facilities. There are different benefits associated with each of these categories.

Communities enter into partnerships for various reasons. These include: access to more sophisticated technology; cost-effective design, construction and/or operation; flexible financing; delegation of responsibility and risk; and guaranteed cost.

Building a Public-Private Partnership: An Action Checklist

No two communities build a partnership in exactly the same way, but all must take roughly the same steps. This document presents an action checklist of the steps that will help a community make many decisions necessary to enter into a contract with a private firm.

A community initiates the public-private partnership process by evaluating its service needs, reviewing available technology, and identifying resources that may be able to assist in the development of the contract. It is also important for community

leaders to generate public support while they are evaluating financing prospects and studying laws and regulations.

Reviewing a potential private partner's track record is also an important part of the process. Another option a municipality may consider is regionalizing services with surrounding communities. Eventually, local officials must narrow partnership options, select and conduct its procurement process and finally, develop the service agreement.

Financing, Procurement and the Service Agreement

Three of the most difficult steps in building a public-private partnership are financing, procurement and the service agreement.

In choosing a financing method, a community should estimate the capital required and identify various financing options. These financing strategies should then be assessed against the financial condition of the municipality, the project's costs and any risks. The community must select the option which is most appropriate by comparing benefits and costs.

A local government starts to implement its choice by initiating the procurement process. The three types of procurement most communities select are advertised procurement, competitive negotiation and two-step advertising. While advertised procurement allows the community to dictate the terms of the solicitation, competitive negotiation offers greater flexibility. Two-step advertising is a mixture of the other two.

Finally, a partnership arrangement must be defined in a service agreement. Each contract must include a number of elements. The contract must define: the project and performance criteria, compensation method and timing, changing situations and risk allocations and contract termination and step-in-rights. Insurance and bonding should also be considered since they may affect the terms of the contract.

Additional Information

Public-Private Partnership Program:
Office of Policy and Management
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913- 551-7045

SARA TITLE III - THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

SARA Title III has two purposes: to encourage and support emergency planning for responding to chemical incidents, and to provide local governments and the public with timely and comprehensive information about possible chemical hazards in communities.

Does the Emergency Planning and Community Right-to-Know Act Apply To My Community?

Yes. The chemicals in your community may pose a threat to citizens and to those individuals being asked to respond to emergencies involving hazardous substances. All facilities, including government facilities, in your community storing certain hazardous chemicals (exceeding specified quantities) must provide information to government agencies and local communities. Also, if there is a chemical incident which results in the release of any one of a large number of hazardous substances, immediate notification must be made to governmental agencies.

The law provides stiff penalties for facilities that do not comply, and it allows citizens to file lawsuits against companies and government agencies to force them to obey the law.

What Are The Requirements Under This Law?

The law, passed in October 1986, had many requirements and deadlines. For example, governors were required to establish State Emergency Response Commissions (SERCs); facilities subject to emergency planning requirements were required to notify their state commissions; and SERCs were required to appoint Local Emergency Planning Committees (LEPCs). LEPCs were required to analyze hazards and develop a local emergency plan to respond to chemical emergencies in each local district. Additionally, the LEPC must exercise, review and update the plan annually, informing the public of these activities.

The LEPC has other responsibilities besides developing an emergency response plan. It receives emergency release and hazardous chemical inventory information submitted by local facilities and must make this information available to the public upon request.

Title III requires owners and operators of facilities storing specified hazardous substances to report to the LEPC within 60 days. When facilities provide the information required by the Act to local officials, small communities can better prepare themselves for chemical emergencies.

If the Emergency Planning and Community Right-to-Know Act applies, what should I do?

As a local official, you should insist on complete planning and adequate preparation for an emergency. Review the membership list of your Local Emergency Planning Committee (LEPC). Make sure it is fully representative of the community and includes individuals from citizen groups, fire departments, public institutions (hospitals, schools, state and local governments), medical facilities, industry, business and farmers. It is important not only to participate in emergency planning, but also to communicate with the public.

Become familiar with the law so that you will know what tools are being made available to the community to better assess and manage risks present within the community. Identify what needs to be done at the local level to better prepare the response community to deal more effectively with, and prevent, chemical emergencies.

Additional Information

Regional Contact:

Toxic Substances Control Section
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7020

State Contact:

Right-To-Know Program
Bureau of Air & Radiation
KDHE
Forbes Field, Bldg. 740
Topeka, KS 66620-0001
1-913-296-1690

SARA Title III Hotline, 1-800-535-0202

CROSS MEDIA PROGRAMS

ASBESTOS

Schools - Public and Private Nonprofit

On October 22, 1986, the President signed the Asbestos Hazard Emergency Response Act (AHERA) into law. The Act required EPA to develop regulations creating a comprehensive framework for addressing asbestos hazards in schools. The Act required EPA to construct a model accreditation program for individuals who conduct inspections for asbestos, develop management plans and perform abatement work. Asbestos is also regulated under the authority of the National Emission Standards for Hazardous Air Pollutants in the Clean Air Act.

Other provisions of AHERA require all public and private elementary and secondary schools to conduct inspections for asbestos-containing building materials, develop management plans and implement response actions in a timely fashion. Specifically, each local education agency (or LEA, which means a public school district or private nonprofit school) must do the following:

-Designate and train a person to oversee asbestos-related activities in the LEA (designated person).

- Inspect every school building for both friable and nonfriable asbestos containing building materials.

- Prepare a management plan for managing asbestos and controlling exposure in each school and submit that plan to the appropriate state agency. The plan should include a time frame for implementation of recommended actions.

- Use only properly accredited persons to conduct inspections and develop the asbestos management plan. Accredited personnel must also conduct the required triennial reinspections.

- Provide custodial staff and short-term workers with information about the location of any asbestos-containing materials. Post warning labels as required.

- Survey all locations of asbestos-containing materials for damage every six months. Take appropriate steps to repair or replace damaged materials.

- Provide custodial and maintenance staff with two hours of awareness training and an additional 14 hours of training for employees whose duties may cause them to disturb asbestos. This additional training must include proper work practices and the use of protective equipment when disturbing asbestos containing materials.

- Notify parents, teachers and other school employees about the asbestos inspection and the availability of the asbestos management plan for review.

- Utilize properly accredited individuals to design and conduct asbestos abatement actions that are necessary and appropriate to protect health and the environment. These actions or methods must be documented in the management plan.

- Keep records of all asbestos-related activities in each school plan and make them available for public review.

Management plans were submitted to state agencies on or before May 9, 1989, as mandated by the provisions of AHERA. LEAs were required to begin implementation of their management plans by July 9, 1989. LEAs are required to update and maintain management plans to reflect activities with ongoing operations and maintenance, periodic surveillance, inspection, reinspection and response action activities.

All Buildings

In 1971 the Administrator of the EPA determined that asbestos presents a significant risk to human health and is therefore a hazardous air pollutant. The National Emission Standards Hazardous Air Pollutants (NESHAP) for asbestos, promulgated under section 112 of the Clean Air Act, specifies emission control requirements for the milling, manufacturing and fabricating of asbestos; for demolition and renovation activities; and for the handling and disposal of asbestos-containing waste materials.

The NESHAP requires that each owner or operator of a demolition or renovation activity thoroughly inspect the affected facility or part of the facility for the presence of asbestos, including Categories I and II nonfriable asbestos, before commencement of the demolition or renovation. Private residences of four units or less are exempt from the NESHAP.

Under the NESHAP, all demolitions require notification to the appropriate regulatory agency, including facilities containing no asbestos. Work practice procedures, waste disposal requirements, and recordkeeping provisions apply to those demolition operations where the amount of regulated asbestos-containing material (RACM), as defined in Section 61.141, when measured, meets or exceeds 260 linear feet on piping, 160 square feet on other facility components, or 35 cubic feet of asbestos-containing material that has already been stripped or removed and placed in containers, or left on the floor or ground.

The NESHAP requires that notification be submitted at least 10 working days before any asbestos stripping, removal or any other activity begins that would otherwise disturb the asbestos material.

Under the NESHAP, renovations, including individual nonscheduled operations, require notification to the appropriate regulatory agency, as well as compliance with work practice procedures, waste disposal requirements and recordkeeping provisions where the amount of RACM, when measured, meets or exceeds 260 linear feet on piping, 160 square feet on other facility components, or 35 cubic feet of asbestos-containing material that has already been stripped or removed and placed in containers, or left on the floor or ground.

The NESHAP requires at least one representative trained in the provisions of this regulation be on site during any stripping, removal or handling of RACM. The AHERA contractor/supervisor course meets the NESHAP training requirements.

The Kansas regulations governing the control of asbestos must be at least as stringent as the federal requirements and may be more stringent. For example, Kansas requires notification and compliance with work practices, and waste disposal procedures where more that three square feet or three lineal feet of friable asbestos-containing material is to be removed. Kansas also requires that business entities who engage in asbestos removal and encapsulation projects be licensed and that workers who engage in these activities be trained and certified. The Kansas regulation also establishes project evaluation fees that must accompany the notification.

Public Employers

Employers of public employees who are engaged in asbestos abatement projects must comply with provisions of the Asbestos Abatement Projects Worker Protection Final Rule, designed to protect their workers from friable asbestos-containing materials. Employers are required to conduct air monitoring, utilize specified engineering controls and work practices, provide medical surveillance of the employees and submit prior notification to EPA Region 7's Regional Asbestos Coordinator.

What Help Is Available?

Schools - Public and Private Nonprofit

Under the Asbestos School Hazard Abatement Act (ASHAA) program, EPA provides financial aid to eligible schools in the form of an interest-free loan, grant, or a combination of both, for the purpose of abating friable asbestos-containing building materials.

How Do I Obtain More Information?

Under AHERA, LEA's afford citizens the opportunity to become familiar with asbestos activities in their respective school districts. The initial point of contact to obtain information on asbestos activities should be the LEA designee. This individual is most familiar with the asbestos situation in your school. Additionally, state AHERA designees and local, state and national parent and teacher organizations are excellent sources for requesting information on asbestos activities.

Additional Information

EPA Toxic Substances Control Act (TSCA) Hotline 1-202-554-1404

ASHHA Asbestos Hotline (Schools) 1-800-462-6706

"Managing Asbestos in Place, A Building Owner's Guide to Operations and Maintenance Programs for Asbestos-Containing Materials"

"The ABC's of Asbestos in Schools"

"100 Commonly Asked Questions About the New AHERA Asbestos-in-Schools Rule"

For The Following Information, Please Call The EPA Region 7 Office Contact.

40 CFR 61 National Emission Standard for Hazardous Air Pollutants; Asbestos NESHAP Revision; Final Rule

"The Asbestos Informer"

"Asbestos/NESHAP Adequately Wet Guidance"

"Asbestos/NESHAP Regulated Asbestos-Containing Materials Guidance"

"Reporting and Recordkeeping Requirements for Waste Disposal"

"Common Questions on the Asbestos NESHAP"

"A Guide to the Asbestos NESHAP As Revised November 1990"

Regional Contact:

Asbestos Control Program
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7020

State Contact:

Asbestos Control Program
Bureau of Air & Radiation
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-1550

CROSS MEDIA PROGRAMS

INDOOR RADON

Radon is a naturally occurring radioactive gas that comes from the natural breakdown (radioactive decay) of uranium in soil, rock and water. Radon moves up through the ground to the air above and into homes and other buildings through cracks or holes in the foundation and other entry points. The home acts to trap radon gas, especially when the home is closed, increasing indoor radon levels. Most soils contain varying amounts of uranium and, therefore, elevated radon levels have been found in homes, schools and buildings throughout the U.S.

Exposure to high radon levels is dangerous. The health hazard from radon arises from inhaling its radioactive decay products. The Surgeon General has warned that radon is the second leading cause of lung cancer in the U.S. today. For persons who smoke, the health risk of inhaling radon is especially high.

EPA has established procedures for testing homes, schools and buildings. These testing procedures are described in various radon documents that are available from EPA and KDHE. EPA has established an action level for indoor air radon levels of 4 pCi/l (picocuries per liter). Nearly one out of every 15 homes in the U.S. is estimated to have radon levels that exceed the action level.

In 1988 Congress enacted the Indoor Radon Abatement Act (IRAA) with the goal of reducing indoor radon levels to radon levels found in outside air. Among other provisions, IRAA provided funds for state governments to establish radon programs and to assist local governments and communities in encouraging residents to test for radon and mitigate elevated radon levels. IRAA also required EPA to develop a national description of radon levels in homes and schools throughout the country. To date, 42 states and seven Indian Nations, in conjunction with EPA, have conducted radon residential surveys to characterize statewide radon distributions. Additionally, about 1,200 schools were tested in the winter of 1991.

IRAA also required EPA to develop a program to evaluate radon mitigation contractors and radon measurement labs. In response, EPA established four regional radon training centers to train radon professionals. EPA also developed a national proficiency exam to test the knowledge of radon contractors. Contractors who pass the exam are listed on the Radon Contractor Proficiency (RCP) list. EPA also established the Radon Measurement Proficiency (RMP) Program. This program tests and evaluates the accuracy of firms that supply radon test devices. Those that pass the program are included on the RMP list.

Does The Radon Program Apply To My Community?

Local communities, in concert with the State, play a vital role in reducing the public health risk of radon. It is very likely that there are homes, day care centers, schools or commercial buildings in your community that have elevated indoor air concentrations of radon.

Currently, most radon-related policies are non-regulatory. EPA, the State and local governments have focused their energies toward educating the public about the health risk of radon and encouraging voluntary testing of homes and buildings. Some states, however, have developed radon regulations, including certification of radon professionals and mandatory testing of all public schools. Additionally, model building codes for new constructionhave been developed that may be incorporated into the building codes of local jurisdictions. Finally, Congressional attention has been directed toward required radon testing during real estate transactions that involve federal agencies, such as FHA or HUD.

Local governments can act to protect their residents from radon in several ways:

1. Develop radon education and outreach programs,
2. Adopt radon-resistant building codes for new construction, such as the model codes,
3. Encourage voluntary testing in local communities,
4. Ensure that local radon contractors are RCP-listed or state-certified, and
5. Work in conjunction with KDHE's Radiation Control Section and community organizations, such as the American Lung Association of Kansas and County Extension Offices, to elevate local attention to this important health risk.

Additional Information

Regional Contact:
Radon Program
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913- 551-7020

State Contact:
Radiation Control Section
Bureau of Air & Radiation
KDHE
Forbes Field
Topeka, KS 66620
1-913-296-1560

Radon Measurement Proficiency Program
Research Technical Information Service
Research Triangle Institute
Research Triangle Park, NC 27709
1-919- 541-7131

Radon Contractor Proficiency Program
Midwest University Radon Consortium
1985 Buford Ave.
St. Paul, MN 55108
1-612- 624-8747

PESTICIDES

Few chemicals have had as much impact or been the subject of as much controversy in recent decades as pesticides. EPA has the authority to regulate pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug and Cosmetic Act. Under FIFRA, EPA has the authority and responsibility for regulating pesticide registration, production, sale, distribution, and use. No pesticide may legally be sold or used in the United States unless it has been registered by EPA and bears an EPA registration number. EPA also has the authority to suspend or cancel the registration of a pesticide.

All pesticides must have a label. The label includes instructions for use, storage and disposal of containers. The label, together with any literature to which it refers, has the force of law.

The pesticide that stays in or on farm products or processed foods is called a residue. EPA regulates the safety of the food supply by setting limits for pesticide residues on food and animal feed available for sale in the United States.

Issues currently being dealt with in the pesticide program include agricultural workers' and pesticide handlers' safety, applicator certification and training, state enforcement, pesticides in groundwater and endangered species.

To address the safety of agricultural workers and pesticide handlers, EPA proposed new Worker Protection Standards in 1988. These standards were published as final regulations on August 13, 1992. These standards, which were in response to a significant number of pesticide poisonings occurring every year, strengthened earlier protection provisions, reduced risks of exposure and extended coverage to additional handlers.

Currently there are about 100 active ingredients federally registered, which are classified as restricted use. Pesticides containing these active ingredients can only be applied by, or under the direct supervision of, a certified applicator. Applicators must meet certain competency requirements to use restricted pesticides.

Efforts are under way to strengthen state training programs, particularly with respect to groundwater protection, worker protection and endangered species protection. EPA has prepared a Pesticides in Groundwater Strategy to address risks of groundwater contamination by pesticide chemicals. EPA is required under the Endangered Species Act, to protect listed species and their habitat from the effects of pesticides. In 1989 EPA proposed an Endangered Species Protection Program to accomplish this.

In most states, state pesticide regulatory agencies have assumed responsibility for pesticide enforcement under agreement with EPA. In Kansas, the State Board of Agriculture is the agency regulating pesticide sale and use. However, KDHE regulates the disposal of pesticide waste.

Additional Information

U.S. EPA, FIFRA Amendments of 1988; Schedule of Implementation.
54 Federal Register 18078 (April 26, 1989).

Regional Contact:

Toxics and Pesticides Branch
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913- 551-7020

State Contacts:

Kansas State Board of Agriculture
901 Kansas Ave.
Topeka, KS 66612
1-913-296-2263
(For information on application and certification)

Bureau of Waste Management
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620
1-913-296-1600
(For information on disposal)

CROSS MEDIA PROGRAMS

TOXICS - PCB'S

The EPA was required by Congress under Section 6(e) of the Toxic Substances Control Act (TSCA) (Public Law 94-469, October 11, 1976) to promulgate rules for the marking, storage and disposal of Polychlorinated Biphenyls (PCBs).

Virtually every municipality and utility in the U.S. is, or has been, in possession of regulated PCB equipment. Manufacturers inadvertently con taminated about 12% of the mineral oil filled electrical equipment in use prior to 1976 by using the same pumps and lines to fill their premium PCB equipment and their mineral oil equipment.

Dielectric fluid less than 50 part per million (ppm) PCBs is considered "Non-PCB," but disposal is regulated by some states. Fluid from 50-499 ppm is "PCB contaminated" and is regulated. Fluid at 500 ppm or greater is considered "PCB" and is highly regulated.

EPA intends to allow use of contaminated and PCB equipment for the remainder of its useful life as long as the equipment is properly monitored and maintained.

Additional Information

PCB Regulations; 40 CFR, Part 761.

Regional Contact:

Toxic Substances Control Section
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7020

CLEAN AIR ACT AMENDMENTS

Will The Clean Air Act Amendments Apply To My Community?

The goal of the Clean Air Act Amendments is to reduce pollution by 56 billion pounds a year. This reduction will generally come from cutting emissions in large urban areas. However, there may be some impacts on small communities. Implementation of the Act will require the regulation of small businesses in order to attain and maintain the national air quality standards and control air toxic emissions.

To be eligible for technical and environmental compliance assistance under the Clean Air Act Amendments, a small business stationary source must meet the following criteria:

a. Owned or operated by a person employing 100 or fewer individuals;
b. A small business under the Small Business Act;
c. Not a major stationary source;
d. Does not emit 50 tons per year or more of any regulated pollutant; and
e. Emits less than 75 tons per year of all regulated pollutants.

These small businesses frequently lack the technical expertise and financial resources necessary to evaluate state regulations and determine the appropriate mechanisms for compliance. The Act provides for the design of a program to render technical assistance and compliance information to small businesses.

Actions Your Community Should Be Taking

With regard to those regulations affecting small businesses, the state will designate a Small Business Ombudsman to represent small business to the appropriate governmental organizations. Kansas will also implement a Small Business Assistance Program. This program will collect and disseminate information on 1) determining applicable requirements under the Act and permit issuance, 2) the rights of small businesses under the Act, 3) compliance methods and acceptable control technologies, 4) pollution prevention and accidental release/prevention/detection and 5) audit programs. In the event Kansas fails to appoint an Ombudsman or implement a Small Business Assistance Program, EPA will assume those responsibilities.

A small community should contact its state air pollution agency and the Regional EPA Small Community Coordinator prior to addressing significant air pollution issues.

Additional Information

Regional Contact:

Air Program
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7020

Small Community Coordinator:
1-913-551-7005

State Contact:

Bureau of Air and Radiation
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-1570

Small Business Assistance Program
Office of Science & Support
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-6603

Clean Air Act Amendments
Title VIII- Miscellaneous Provisions
Sec. 810. Impact on small communities

Refrigerant Recycling and the Prohibition on Venting

Under Section 608 of the Clean Air Act, EPA published proposed regulations on December 10, 1992, that would:

- Require service practices that maximize recycling of ozone-depleting compounds (chlorofluorocarbons [CFCs] and hydro-chlorofluorocarbons [HCFCs]) during the servicing and disposal of air conditioning and refrigeration equipment.

- Set certification requirements for reclaimers and for recovery and recycling equipment.

- Establish safe disposal requirements to ensure removal of refrigerants from goods that enter the waste stream with the charge intact (e.g., motor vehicle and room air conditioners and home refrigerators).

Effective July 1, 1992, section 608 of the Act prohibits individuals from knowingly venting ozone-depleting compounds used as refrigerants into the atmosphere. Only three types of releases are permitted under the prohibition:

- Minute quantities of refrigerant released in the course of making good faith efforts to recapture and recycle or safely dispose of refrigerant.

- Refrigerant emitted in the course of normal operation of air conditioning and refrigeration equipment such as from leaks and mechanical purging.

- Mixtures of nitrogen and R-22 that are used as holding charges or as leak test gases because in these cases, the ozone-depleting compound is not used as a refrigerant.

Use of Approved Equipment

Technicians repairing or servicing motor vehicle air conditioners must use either refrigerant recover/recycle or recover-only equipment approved by EPA. Most certified equipment will be labeled as "design-certified to SAE standards." A list of both types of approved equipment is available from EPA at the address at the end of this section.

Technician Training and Certification

Technicians who repair or service motor vehicle air conditioners must be trained and certified by an EPA-approved organization. Training programs must cover the use of recycling equipment in compliance with the Society of Automotive Engineers (SAE) Standard J-1989, the regulatory requirements, the importance of refrigerant containment, and the effects of ozone depletion. A list of approved testing programs is available from EPA at the address at the end of this section.

Safe Disposal Requirements

Under EPA's proposal, equipment that is typically dismantled on site before disposal (e.g. retail food refrigeration) would have to have the refrigerant removed and recovered in accordance with EPA's requirements for servicing. However, equipment that typically enters the waste stream with the charge intact (e.g. motor and room air conditioners) would be subject to special safe disposal requirements. Under these requirements, the final person in the disposal chain would be responsible for ensuring that refrigerant is recovered from equipment before the final disposal of the equipment.

Hazardous Waste Disposal

If refrigerants are recycled or reclaimed, they are not considered hazardous under federal law. In addition, used oils contaminated with CFCs are not hazardous on the condition that:

-They are not mixed with other waste.
-They are subjected to CFC recycling or reclamation.
-They are not mixed with used oils from other sources.

Used oils that contain CFCs after the CFC reclamation procedure are, however, subject to specification limits for used oil fuels if these oils are destined for burning. Individuals with questions regarding the proper handling of these materials should contact EPA's RCRA Hotline at 1-800-424-9346.

Additional Information:

Radiation and Indoor Air Section
Air and Toxics Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7020
1-800-223-0425

For information concerning regulations related to stratospheric ozone protection, please call:

Stratospheric Ozone Hotline: 1- 800-296-1996
(10am-4pm EST, M-F, except federal holidays)

LAND PROGRAMS

SUPERFUND PROGRAM

As the 1970's came to a close, a series of stories gave Americans a look at the dangers of dumping industrial and urban wastes on the land. First there was New York's Love Canal. Hazardous waste buried for 25 years contaminated streams and soil, and endangered the health of nearby residents, who had to be evacuated. The dioxin-tainted land and water in Times Beach, Missouri also attracted attention.

It became increasingly clear that there were large numbers of serious hazardous waste problems that were falling through the cracks of existing environmental laws. The magnitude of these emerging problems moved Congress to enact the Comprehensive Environmental Response, Compensation and Liability Act in 1980. CERCLA -- commonly known as Superfund -- was established to deal with the dangers posed by the Nation's hazardous waste sites.

Since the program began, hazardous waste has surfaced as a major environmental concern in every part of the United States. It wasn't just the land that was contaminated by past disposal practices, chemicals in the soil were spreading into the groundwater and into streams, lakes and wetlands. Toxic vapors contaminated the air at some sites, while improperly disposed or stored wastes threatened the health or environmental resources of the surrounding community.

Few realized the size of the problem until EPA began the process of site discovery and evaluation. Thousands of potential sites existed. Congress directed EPA to set priorities and establish a list of sites to target. The sites on the National Priority List (NPL), almost 1,300 in number, are the most complex and compelling cases of the entire inventory of potential hazardous waste sites.

Superfund responds immediately to sites posing imminent threats to human health and the environment at both NPL sites and sites not on the NPL. The purpose is to stabilize, prevent, or temper the effects of a release of hazardous substances, or the threat of one, into the environment. Imminent threats might include tire fires or transportation accidents involving the spill of hazardous chemicals.

The ultimate goal for a site on the NPL is a permanent solution; this requires a long-term effort. Nearly 1,800 Superfund sites have been cleaned up, including 112 on the NPL.

Superfund activities depend upon local citizen participation. The EPA's job is to analyze the hazards and to deploy experts, but the Agency needs citizen input. EPA encourages citizens to get involved in cleanup decisions because people in the community where a site is located will be those most directly affected by the wastes and cleanup processes.

Additional Information

Superfund Program
Waste Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101 1-913-551-7052

LAND PROGRAMS

RCRA HAZARDOUS WASTE

Hazardous waste is prevalent throughout all levels of commerce and industry. Wastes are identified as hazardous if they pose a potential danger to human health and/ or the environment when not properly treated, stored, transported, disposed or otherwise managed. Potential dangers include explosions, fires, corrosive destruction of materials, chemical reactions and/or health impairing exposure to toxic chemicals. The greater the quantity or concentration of chemicals exhibiting any of these dangers, the greater the need to assure their proper management.

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) as the primary regulatory vehicle to assure that hazardous waste is properly managed from the point of its generation to its ultimate disposal or destruction, i.e., "from cradle to grave." RCRA establishes a very complex and comprehensive set of requirements to define which hazardous waste is subject to regulation as well as the responsibilities of anyone who generates, transports, stores, treats, disposes or otherwise manages hazardous waste. At this time, waste generated by individual households is not subject to federal RCRA requirements, even if it exhibits some of the dangers described above.

There are three categories of hazardous waste generators in Kansas:

EPA Generator - any person who generates 1,000 kilograms (kg) or more of hazardous waste in a calendar month or who accumulates quantities greater than 1,000 kg at any time. An EPA generator also includes any person who generates one kilogram or more of acutely hazardous waste in a calendar month or who accumulates quantities greater than one kilogram of acutely hazardous waste at any time (A kilogram is approximately 2.2 pounds and 1,000 kg is approximately five, 55 gallon drums of material.).

Kansas Generator - any person who generates a minimum of 25 kg but less than 1,000 kg of hazardous waste in a calendar month, and who does not accumulate quantities greater than 1,000 kg at any time.

Small Quantity Generator - any person who generates less than 25 kg of hazardous waste in a calendar month, and who does not accumulate quantities greater than 1,000 kg at any time. A small quantity generator also includes any person who generates less than one kilogram of acutely hazardous waste in a calendar month, or who does not accumulate quantities greater than one kilogram of acutely hazardous waste at any time.

Does The RCRA Program Apply To My Community?

It is very likely that some types of hazardous waste are generated by businesses in your community or by your municipal facility operations themselves. Because hazardous waste includes things like solvents, corrosives and materials containing heavy metals like chromium, cadmium and lead,many types of small businesses such as vehicle maintenance shops and dry cleaners may generate hazardous waste. Any discarded material must be evaluated to determine if it has been listed by EPA as hazardous waste or if the waste exhibits any of the following characteristics: ignitablity, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP) test.

In addition to used materials which might be considered hazardous waste, communities must also be careful as to how products that are no longer wanted or needed are discarded. Discards like leftover pesticides from grounds-keeping operations and old paint thinner must be fully evaluated before disposal decisions are made. EPA has identified several hundred chemical products which, if disposed of, would also be considered "listed hazardous waste."

Another area of possible concern for your community is the operation of a solid waste collection system and/or a landfill. Although household wastes are exempt from hazardous waste regulation, such wastes are regulated under a program referred to as the "Subtitle D Municipal Solid Waste Landfill Criteria" which is intended to insure proper management of all non-hazardous solid wastes. The fact that commercial waste materials are collected and/or co-disposed with the household materials might trigger RCRA jurisdiction over an entire facility where hazardous wastes are identified.

Timetable

RCRA regulations were first published in 1980 and are constantly being amended. If you determine that you are a generator or handler of hazardous waste, you must notify KDHE of your activity and receive an EPA identification number.

Different timetables and responsibilities apply to the different activities. Generators may accumulate waste on-site for up to 90 days without triggering a requirement to obtain a storage permit. Other storage periods may apply depending on the amount of hazardous waste generated in any given month. For more information, contact the departments listed at the end of this section.

Securing a permit authorizing the treatment, storage or disposal of hazardous waste is a very expensive and lengthy process.

In Kansas, KDHE administers the federal RCRA hazardous waste program. State laws and rules may differ from the federal requirements. For example, anyone who generates over 25 kg (about 55 pounds) of hazardous waste per month, or accumulates over 1,000 kg of hazardous waste at any time, is required to notify KDHE. Generators of hazardous waste also may be subject to certain fees.

Many companies and communities look for ways to reduce the amount of hazardous waste produced in order to reduce expense and regulatory burdens. Waste reduction can be accomplished through better housekeeping, careful purchasing, changes in process and a variety of other ways. Hazardous waste generators should examine their waste streams and consider whether there might be a way to reduce what is being generated.

Additional Information:

Regional Contact:

RCRA Branch
Waste Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7051

State Contact:

Hazardous Waste Section
Bureau of Waste Management
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-1600

RCRA Regulations 40 CFR Parts 260-272

RCRA Hotline 1-800-424-9346

SUBTITLE D MUNICIPAL SOLID WASTE LANDFILL CRITERIA

Municipal Solid Waste is a non-hazardous waste generated at residences, commercial and industrial establishments and institutions. Municipal solid wastes include durable goods (appliances, furniture, etc.), nondurable goods (newspapers, clothing, etc.), containers and packaging (boxes, bottles, etc.), food and yard wastes and miscellaneous inorganic wastes (stones, pieces of concrete, etc.).

The Municipal Solid Waste Landfill Criteria (MSWLFC) were published on October 9, 1991 in the Federal Register, and will go into effect October 9, 1993. The purpose of the Criteria is to set minimum national performance standards which will protect human health and the environment. The MSWLFC set location restrictions, operating criteria, design criteria, groundwater monitoring and corrective action standards, closure and post closure requirements and financial assurance requirements. In Kansas, KDHE's Bureau of Waste Management regulates landfills and implements the MSWLFC.

Do The MSWLFC Apply To My Community?

The MSWLFC apply to all new, existing, and lateral expansions to municipal solid waste landfills which receive waste on or after October 9, 1993. In July, 1993, the EPA proposed to extend the effective date of this rule to April 9, 1994 for all landfills receiving less than 100 tons of solid waste per day (daily average). EPA also proposed to extend the effective date for all small landfills (receiving less than 20 tons of municipal solid waste daily - annual average basis) until October 9, 1995, if the landfills are located in areas that annually receive less than 25 inches of precipitation. On that date, all landfill standards become applicable except the design standards. If groundwater contamination is ever discovered at the site, the design standards also become applicable and the owner/operator must notify KDHE of such findings.

Action Your Community Should Be Taking

All counties with a landfill, must be prepared to either not accept waste, or upgrade to meet the Criteria by the applicable deadline, either October 9, 1993; April 9, 1994 or October 9, 1995. Those counties without a landfill should be prepared to pay more for disposal as these deadlines are reached. All counties should also plan and implement solid waste management and disposal options, such as composting of tree and yard waste, and establishing recycling programs and household hazardous waste (HHW) collection sites.

Solid Waste Grant Programs

KDHE has developed three grant programs to assist counties in dealing with municipal solid waste issues. The first is the solid waste planning grant program which will pay up to 50% of the cost of developing a single county solid waste management plan, and up to 90% of the cost of a regional, multi-county plan. These plans are mandated by state statute. Funding for the program comes from a $1.50/ton surcharge on municipal solid waste disposal.

The second program is the waste tire management grant program which is funded with a $.50 per tire excise tax on the sale of new tires at the retail level. The program is designed to eliminate existing problems of dumping and stockpiling waste tires by creating a statewide effort of local and regional public entities and private enterprise to manage the ongoing reduction and control of waste tires. The program is divided into base program grants and abatement (clean up) grants. Base grant monies are allocated annually, in part, based upon total funds available in the Waste Tire Fund. All Kansas counties, cities or multi-county regional entities are eligible for base program grant funds. Abatement funds are limited and are available on a competitive basis.

The third program awards grants to local governments desiring to conduct household hazardous waste (HHW) collection programs. The state provides up to 50% of the cost of a local program matched by a local government or a group of local government units using in-kind and financial support. Grants are awarded on a competitive basis after an application and screening process. The purpose of the program is to provide for the safe disposal of small quantities of hazardous waste in the hands of householders and farmers; to educate the public about the dangers posed by HHW; and, to encourage local units of governments to develop local HHW collection programs either individually or jointly.

Additional Information

Regional Contact:

Solid Waste Program
Waste Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7051

State Contact:

Solid Waste Section
Bureau of Waste Management
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-1600

UNDERGROUND STORAGE TANKS

Federal regulations, which establish requirements for underground storage tanks (UST) storing petroleum and hazardous chemicals, were developed by EPA and became effective December 23, 1988.

Regulated tanks include storage tanks containing petroleum or other regulated substances in which 10 % or more of the volume, including the pipes, is below the surface of the ground. Following are several types of tanks which are exempt from UST regulations:

- -Farm and residential tanks of 1,100 gallons or less
- -Single family residence heating oil storage tanks
- -Septic tanks
- -Wastewater treatment tanks (flow-through process tanks) regulated under the Clean Water Act
- -Tanks with a capacity of 110 gallons or less
- -Tanks above the floor of an underground area (a basement, tunnel or vault), such that the tank can be visually inspected on all sides.

No company, firm or individual may install, remove, modify or test a UST without first obtaining a license to do so. To become a licensed UST contractor, an application must be submitted to KDHE with the applicable fees and proof of insurance. After June 1, 1991, no person shall place a regulated substance (including petroleum) in a regulated UST, unless a valid permit is openly displayed at the facility. KDHE will issue permits to UST owners who have satisfied the regulations which apply to their tanks. Tank owners must register their tanks with KDHE and pay annual registration fees. Placing fuel in an unpermitted UST can result in a fine.

What Are The Leak Detection Requirements?

Release detection for tanks is required based on the tank age, as the schedule below indicates:

	Compliance Date
Tanks installed through 1979 or an unknown date	Dec. 23, 1992
Tanks installed during 1980 through 1988	Dec. 23, 1993

Release detection for all pressurized lines has been required since December 23, 1990. Release detection for buried lines can be accomplished by performing annual line testing or by installing monthly line monitoring equipment. In addition to release detection, a flow restrictor, continuous alarm or an automatic shut off must be present which will detect a release of three gallons per hour from a pressurized line. Release

detection for a conventional suction line is required at the same time as the tank the line services. If tightness testing is selected as a method of release detection for suction lines, the test must be performed once every three years after compliance is required. Release detection is not required for safe suction lines, which contain only one check valve immediately below the suction pump with the piping sloping toward the tank.

Release Detection Methods

Release detection requirements can be met by a number of methods, some of which are listed below. Prior to the installation of release detection equipment, an application must be submitted to and approved by KDHE.

Annual tightness testing	Must be capable of detecting a release of 0.1 gallons/hr from any portion of the tank/line that routinely contains product. If used, required annually for tanks & pressurized lines.
Automatic tank gauging	Must be capable of detecting a release of 0.2 gallons/hr from any portion of the tank which routinely contains product and must provide inventory control. This method is only acceptable for tank testing, not lines.
Soil vapor monitoring method	Only useful at sites where soil/backfill material are sufficiently porous, and the stored material is volatile enough to produce a vapor level detectable by the monitoring device. Another method should be used if the monitoring device will be adversely affected by moisture or background contamination.
Groundwater monitoring method	Groundwater must intersect the tank excavation and the backfill material must have a hydraulic conductivity of not less than 0.01 cm/sec.
Manual tank gauging	Approved only for tanks of 1,000 gallons or less. This method involves two consecutive tank stickings both before and after a 36-54 hr rest period each week.

Additional Requirements:

Inventory control must be performed for all tanks which store or dispense

product. Inventory control must be performed every operating day for all UST systems which store and dispense fuel. If no fuel is dispensed from a tank on a regular basis, the inventory must be performed and reconciled a minimum of once a month.

All existing tanks and metallic product lines must have corrosion protection by December 23, 1998 if they are to remain in use. Owners may elect to upgrade existing UST systems or replace old unprotected metal systems before the compliance date. Fiberglass tanks and lines are non-corrosive materials and do not require corrosion protection.

By December 23, 1998, all tanks must be equipped with spill and overfill protection if more than 25 gallons of product are deposited into the tank at one time.

An environmental site assessment is required for any UST to be permanently closed. KDHE must be notified before a UST can be removed or abandoned in place. If abandoned in place, the owner must hire an environmental professional to perform the site assessment prior to abandonment. Once KDHE has evaluated the site assessment and approved the closure, the tank may be filled with an inert solid material such as sand. If contamination exceeding KDHE standards is discovered at any closure site, remedial action will be required.

All releases from UST systems and associated piping must be reported to KDHE immediately after discovery. Above ground releases of petroleum must be reported if water or soil pollution is caused or threatened.

What Are My Financial Responsibilities?

The deadline for owners of USTs to meet financial responsibility requirements was October 26, 1991. The Petroleum Storage Tank Release Trust Fund was created during the 1989 Kansas legislative session to provide pollution liability coverage for tank owners who had no other means of meeting these federal requirements. Coverage for third party claims for personal injury and property damage, as required by law, are not addressed by the Trust Fund. Third party liability coverage, in compliance with the Kansas Storage Tank Act, can be arranged through your current insurance agent. Your agent should contact the Servicing Carrier through its representative, Woodsmall Risk Services, at 1-800-325-9154. An average fee of $300/tank will be required for tank owners to participate in this program.

Additional Information:

Regional Contact:

UST Program
Waste Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7051

State Contact:

UST Program
Storage Tank Section
Bureau of Environmental Remediation
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001

State Trust Fund:	1-913-296-0668
New Installations/Releases	-1685
Compliance & Federal Financial Responsibility	-1677
Tightness Testing/Contractor Licensing	-1598
Ownership Charges, Registration Fees, Abandonment	-1599
Tank Closures, Leaks, Removals Site Assessments	-1684

ABOVE GROUND STORAGE TANKS

Above ground storage tanks are those in which greater than 90% of the tank volume, including volume of the piping, is not below the surface of the ground. Any storage tank situated in an underground area, such as a basement, cellar, drift, shaft or tunnel is included, if the storage tank is situated upon or above the surface of the floor (KSA 65-34, 102 et seq.). The Kansas Legislature has directed KDHE to adopt regulations concerning above ground storage tanks (ASTs) to accomplish the following:

-Register all ASTs which fall under the meaning of the Storage Tank Act. A fee will be established and collected by KDHE as part of the registration process.

-Establish and operate AST Trust Fund, to provide reimbursement for tank owners who have spills or leaks from ASTs, and who expend money to remediate contamination that results from the spills or leaks.

-Adopt and enforce performance standards for prevention of spills or leaks from ASTs. These performance standards will be the same as Federal standards when adopted.

Although none of these regulations are in place, tank owners who are otherwise qualified for protection under the AST Trust Fund may obtain access to the Trust Fund by voluntarily registering their tanks with KDHE. No fee will be required to register until the regulations become effective.

Will The AST Regulations Apply To All Above Ground Tanks?

No, there are several exemptions to the regulations. Tanks which will <u>not</u> be regulated by KDHE include:

-Any tanks associated with crude oil production, pipelines or refining

-Small tanks, with capacities of less than 660 gallons

-Noncommercial fuel tanks, such as those used for farm/ranch purposes, which are less than 1,100 gallons in capacity, or any tank which is used to store heating oil for a single family residence.

In addition, tanks containing "regulated substances" will be regulated, but will not be afforded protection for spill and leak cleanups under the Trust Fund. These tanks will need to be registered, and will be required to meet prevention measures for spill and leak protection. Regulated substances are petroleum or any element, compound, mixture, solution or substance defined in section 101 (14) of CERCLA, as in effect on January 1, 1989, but not if regulated as a hazardous waste under RCRA (42 U.S.C. Sections 6921 through 6939b), as in effect on January 1, 1989 (Kansas House Bill 3153).

If the ASTs are subject to the Storage Tank Act, what must the owner/operator do?

- Register the tanks. Registration can be accomplished by completing the one-page form, "Above Ground Storage Tank System Registration," available from KDHE.

- Report spills or leaks. Kansas Law requires that spills or leaks of hazardous substances be reported to the State within 24 hours. Spills or leaks of flammable or explosive materials should also be reported to the local fire department.

What Other Requirements Govern ASTs?

New or relocated tank installations must be approved in advance by the State Fire Marshall's office and must meet requirements of the State fire code.

Additional Information:

Above Ground Storage Tank Section
Bureau of Environmental Remediation
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-6242

WATER PROGRAMS

KANSAS WATER PLAN

The Kansas Water Plan is a broad-based plan put together by the Kansas Water Office to manage all water in the State of Kansas. This management includes purchasing storage space in reservoirs throughout the State under a Memorandum of Understanding (MOU) between the U.S. Department of the Army and the State of Kansas. Water is stored for a variety of purposes, including municipal and industrial water supply, irrigation, recreation and environmental uses. Under the present plan, storage of water in the state is jointly controlled by the State and the U.S. Army Corps of Engineers.

In addition to planning for an adequate quantity of water, the plan also addresses the quality of water in the State. Provisions are made in five river basins throughout the State for matching the quality of water to the use for which it is intended. Plans for improving water quality and assuring there is adequate water are set forth with suggested legislative and administrative actions. Financial requirements and suggested time schedules are also addressed in the plan.

The Kansas Water Plan fund has an annual revenue of approximately $16 million. This money comes from fees for municipal, stock watering and industrial use. The state imposes a fee of three cents per 1,000 gallons of water sold at retail by a public water supply system and delivered through mains, lines or pipes. The same rate is charged for water appropriated for industrial use or stock watering pursuant to a permit granted in accordance with the Kansas Water Appropriation Act. The State also collects $1.40 for every ton of fertilizer sold and $100 for every pesticide registered in Kansas. Various state agencies who regulate water use depend upon this fund for funding.

WATER PROGRAMS

WATER AND WETLANDS PROTECTION

EPA, in partnership with state and local governments, is responsible for restoring and maintaining the chemical, physical and biological integrity of the nation's waters. Because of the value of wetlands as an integral part of those waters, EPA is also charged with protecting wetland resources. The major federal regulatory tool for this is Section 404 of the Clean Water Act, which is jointly administered by the U.S. Army Corps of Engineers and EPA. Section 404 establishes a permit program to regulate the discharge of dredged or fill material into waters of the U.S., including most wetlands. Failure to obtain a permit or to comply with the terms of a permit can result in civil and/or criminal penalties. The U.S. Fish and Wildlife Service has an important advisory role in the permit review process.

Waters of the U.S. include lakes, streams, rivers, wetlands and coastal waters. Wetlands are areas which are saturated or flooded for varying periods of time during the growing season. Because of the presence of water, there is a prevalence of aquatic or hydrophytic vegetation, such as that found in swamps, marshes, bogs and similar areas. Besides providing fish and wildlife habitat, wetlands also improve water quality by acting as filters, offering flood protection, buffering shorelines against erosion and providing areas for recreation.

Additional Information:

Regional Contact:

Wetlands Program
Office of Planning and Management
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7042

State Contact:

Office of Science and Support
1-913-296-5565
Bureau of Water
1-913-296-5500
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001

Additional Information

The Clean Water Act (33 U.S.C. 1251 to 1387)

National Environmental Policy Act (42 U.S.C. 4321 to 4370c)

Fish and Wildlife Coordination Act (16 U.S.C. 742a to 742m)

River and Harbor Act of 1899 (33 U.S.C. 403, 406, 407, and 411)

The Endangered Species Act (16 U.S.C. 1531 to 1544)

Regulations of the U.S. Army Corps of Engineers (33 C.F.R. 320-330).

Regulations of the U.S. Environmental Protection Agency
(40 C.F.R. 230, also known as the 404 (b) (1) guidelines).

Executive Order 11990 (May 24, 1977) 3 C.F.R., 1977 Comp. pp. 121-123.

The Wetlands Protection Hotline:
1-800-832-7828 9-5:30 (EST) M-F, excluding Federal holidays.

WATER PROGRAMS

DRINKING WATER

The following pages describe requirements under the Safe Drinking Water Act. Kansas has a number of unique requirements for drinking water. For purposes of understanding the Federal and State requirements, please note the following definitions of system types:

Public Water Supply System (PWS) - System for delivery to the public of piped water for human consumption that has at least 10 service connections (15 connections for Federal requirements) or regularly serves at least 25 individuals daily at least 60 days out of the year. This term includes any source, treatment, storage or distribution facilities used in connection with the system.

Community Water Supply System (CWS)- System which has at least 10 service connections (15 connections for Federal requirements) used by year-round residents or that regularly serves 25 year-round residents.

Non-community Water Supply System - System which is not a community system.

Non-transient, Non-community Water Supply System (NTNC)- System that is not a community system and that regularly serves at least 25 of the same persons at least six months per year.

- All public water supplies shall be operated, maintained and supervised by certified personnel. Requirements for Kansas operators are described in the State regulations, KAR 28-16-30 thru 36.

- Records of all laboratory tests, chlorine residuals, turbidity determinations, copies of written communication relating to sanitary surveys, or efforts to correct a violation of these regulations, shall be kept on file for 12 years. These records shall be readily available in a convenient location for an inspection by the Secretary of KDHE, or an authorized representative.

- All community systems and high-risk, non-community systems, as designated by KDHE, shall immediately notify the Department and responsible local officials of a situation with the water service including major breakdown or serious loss of water service which presents or may present an imminent and substantial endangerment of health.

- All community water systems shall prepare an emergency operations plan to safeguard the water supply for the protection of the public if natural or manmade disasters occur. Emergency operations plans shall be submitted to KDHE for review and approval. A model copy is available from KDHE.

- Newly constructed or repaired water mains and finished water storage facilities shall be flushed and disinfected before use in accordance with methods acceptable to KDHE.

- All community water systems shall be operated and maintained to provide a minimum of 20 psi pressure throughout the distribution system except under extraordinary conditions such as unusual peak fire flow demand or major distribution system breaks.

- All community water systems and high risk, non-community systems designated by KDHE shall have a regular program, approved by the Department, for the detection and elimination of cross-connections and prevention of backflow and backsiphonage.

- All finished water reservoirs shall be covered by a permanent material and shall be adequately vented and screened.

- Treatment chemicals and protective coatings exposed to water intended for public consumption shall be used only if approved by KDHE.

Permit Requirements For Public Water Supply Systems

All public water supplies are required to have a permit issued by the KDHE Secretary. An application for a PWS permit shall be submitted for review and approval before the use of the source of supply and construction of new wells, pumping stations, finished water storage or water treatment plants. KDHE also requires plans and specifications for all new water mains. An applicant for a permit must include a complete permit application, along with plans and specifications.

Additional Information:

- The Safe Drinking Water Act.
  Kansas Enabling Legislation, KSA 65-162a et seq.

- National Primary Drinking Water Regulations, 40 CFR Part 141.
  Kansas Regulations, KAR 28-15-11 thru 21.

- National Secondary Drinking Water Regulations, 40 CFR Part 143.

- The Safe Drinking Water Hotline: 1-800-426-4791 9-5:30 (EST) M-F, excluding Federal Holidays.

For questions about the drinking water requirements for communities, please use the following contacts.

Regional Contact:	State Contact:
Drinking Water Program	Public Water Supply Section
Water Management Division	Bureau of Water
EPA Region 7	KDHE
726 Minnesota Ave.	Forbes Field, Bldg 740
Kansas City, KS 66101	Topeka, KS 66620-0001
1-913-551-7032	1-913-296-5514

Kansas Health and Environmental Laboratory

Each year, the Kansas Health and Environment Laboratory provides 200,000 chemical and biological analyses to ensure the safety of 2,500 public water supplies in Kansas. Four specific laboratory programs are dedicated to detecting different hazardous substances.

The Radiation Chemistry Laboratory analyzes water samples to detect and quantify radioisotopes in water. Radioisotopes are chemical elements that can cause adverse health effects. Uranium in geological deposits found primarily in western Kansas can be a problem for some water supplies.

The Organic Chemistry Laboratory conducts analyses for the detection and quantification of trace levels of pesticides, herbicides and other toxic organic compounds. These analyses are particularly difficult and labor intensive because of the part per billion working range required by federal regulations and because there are at least two million different organic compounds in the environment.

The Inorganic Chemistry Laboratory performs as many as 26 different analyses for detection of toxic heavy metals, plant nutrients and other chemicals in samples from public drinking waters.

The Environmental Microbiology Laboratory tests water supplies for coliform indicators of fecal pollution to avoid waterborne outbreaks of infectious diseases.

For additional information (including price lists), please contact:

Director, Health and Environment Laboratory:	(913) 296-1620
Radiation Chemistry Laboratory	-1629
Inorganic Chemistry Laboratory	-1654
Organic Chemistry Laboratory	-1647
Environmental Microbiology Laboratory	-1658

DRINKING WATER

INORGANIC CHEMICALS

Inorganic Chemicals (IOCs) are elements or compounds found in water supplies and may be natural in the geology or caused by activities of man through mining, industry or agriculture. It is common to have trace amounts of many IOCs in water supplies. Amounts above the Maximum Contaminant Levels (MCLs) may cause a variety of damaging effects to the liver, kidney, nervous system, circulatory system, blood, gastrointestinal system, bones or skin depending upon the IOC and level of exposure. Some IOCs are more damaging to infants and pregnant women. Because of some special aspects of the rules for asbestos, lead and fluoride, separate pages are prepared for them in this booklet.

Do The IOC Regulations Apply To My Community?

Yes, prior to the 1986 Safe Drinking Water Act, there were 12 regulated IOCs. Additional IOCs have been added with the Phase II and Phase V regulations, which are described in the following paragraphs.

Timetable (For Revisions To Regulations)

New regulations called Phase II were finalized January 30, 1991, and became effective on July 30, 1992. They added two new IOCs, asbestos and nitrite, and changed the MCLs for four of the current IOCs. Silver was deleted as a primary MCL. As a result of this regulation NTNC PWSs will be required to test for IOCs, and all PWSs (both community and non-community) will be required to test for nitrate and nitrite at least annually.

PWSs will continue to take IOC samples as they have in the past until January 1, 1993. A new monitoring framework was proposed for this rule to standardize monitoring for all the new regulations. The standardized monitoring framework (SMF) is comprised of a nine-year cycle, called a compliance cycle, and three-year periods, called compliance periods. For example, a groundwater PWS would have to test for IOCs sometime in the first compliance period (January 1, 1993 - December 31, 1995).

Additional new regulations called Phase V were finalized on July 17, 1992, and added six new IOCs. These rules will become effective January 17, 1994. Public water supply systems with 150 or more service connections are required to begin monitoring for the Phase V contaminants in the January 1, 1993 through December 31, 1995 time period.

EPA may be expected to add an IOC to the regulated list and may change some MCLs of IOCs as new research clarifies levels of contamination considered hazardous. (Most IOCs are tested from the same sample, requiring no additional work and little additional cost for the community).

New sampling requirements for nitrates will be quarterly for surface water supplies and annually for groundwater supplies. These frequencies may be reduced or increased by the State based upon the levels of nitrate found. The new sampling requirements begin January 1, 1993. Therefore, PWSs can expect to sample at least annually.

MCLs

The following page lists the MCLs for IOCs.

If You Exceed Any Of The MCLs

-Test Quarterly

-Notify the State and complete Public Notices as required.

-Work with the State and/or your engineer to determine the best way to reduce the level of the contaminants in your water supply. Consider a variety of options. In addition to a new treatment process, you may need to consider improving your present treatment process, mix your contaminated supply with another supply that does not exceed the MCL or obtain a new source of water.

-Request an exemption from the State to allow the community to continue to use the water supply while the solutions to the MCL violation are being explored and any needed financing is being planned.

Additional Information

The rules for IOCs are contained in 40 CFR 141.23 and 141.62.

Maximum Contaminant Levels for IOC's

Contaminants	MCL (Pre-1986 and Phase II)
Arsenic	0.05 mg/l
Barium	2 mg/l
Cadmium	0.005 mg/l
Chromium	0.1 mg/l
Lead	refer to section on lead and copper
Mercury	0.002 mg/l
Selenium	0.05 mg/l
Nitrate	10 mg/l
Fluoride	4 mg/l
Asbestos	7 million fibers/l (>10micrometers in length)
Nitrite (As N)	1 mg/l
Combined Nitrate & Nitrite	10 mg/l

MCL: Phase V

Effective January 17, 1994

Antimony	0.006 mg/l
Beryllium	0.004 mg/l
Nickel	0.1 mg/l
Sulfate	deferred
Thallium	0.002 mg/l
Cyanide	0.2 mg/l

DRINKING WATER

ASBESTOS

Asbestos is an inorganic chemical that occurs naturally and has been used in the manufacture of a number of products used in the construction industry. Inhaled asbestos fibers have been identified as causing cancer. Asbestos fibers ingested through drinking water are suspected as a cancer causing agent. Asbestos occurs naturally in a few water supplies and may occur by a corrosive action on asbestos cement (AC) pipe contained in a water system.

Do The Asbestos Regulations Apply To My Community?

Yes, if you are a community or non-transient non-community (NTNC) public water supply, the asbestos regulations apply to you. If you do not have asbestos cement (AC) pipe, your system may be designated as non-vulnerable and granted a waiver. A PWS that is granted a waiver will not have to monitor for asbestos. If your system does have AC pipe and your water is non-corrosive, you also may be classified as non-vulnerable and eligible for a waiver. If a waiver is not granted, you will have to monitor for asbestos once every nine years.

Timetable

An MCL for asbestos was final as of January 30, 1991. If your PWS is vulnerable for asbestos in the water, you will have to take one sample within the first compliance period of each compliance cycle (1993-96).

MCLs

The MCL for asbestos is seven million fibers/liter (longer than 10 micrometers). If your system is required to test for asbestos and it has asbestos cement pipe the sample will be taken at the tap. If your first test exceeds the MCL, you may wish to take a confirmation sample. Compliance will be based on the average of the two. If the sample is still over the MCL, then quarterly testing is required.

Actions Your Community Should Be Taking

-Cooperate with the State in terms of performing initial monitoring, applying for a waiver and/or performing a vulnerability assessment.

If Your Tests Indicate Levels Of Asbestos Higher Than The MCL, You Are In Violation Of The MCL. You Should:

-Test quarterly.

-Notify the State and complete Public Notices as required.

-Work with the State and/or your engineer to determine if asbestos is in your source water and/or is being leached from your asbestos cement pipe. Plan a corrective action.

-If asbestos is in your water source, it may be removed with coagulation/ filtration or direct and diatomite filtration. Corrosion control is used to reduce leaching of fibers from asbestos cement pipe.

Other Important Considerations

EPA proposed (in 1986) under the Toxic Substance Control Act to ban the manufacture of many asbestos products including asbestos cement pipe. There is no plan to call for the removal of existing pipe, but a water system may need to provide for corrosion control if there is asbestos cement pipe in their system. More important may be the need to plan for materials and procedures to repair existing asbestos cement pipe in the future.

The greatest risk related to asbestos cement pipe is to the maintenance worker who is repairing or otherwise coming into contact with the pipe. Inhaling the dust (fibers) from cutting the pipe is particularly hazardous. The Occupational Safety and Health Administration (OSHA) of the Department of Labor has published rules concerning occupational exposure to asbestos. If you work with asbestos cement pipe in your community, contact your state Department of Labor for information on these rules.

Additional Information

The rules for Asbestos are contained in 40 CFR 141.23 and 141.62.

The rules of OSHA on Occupations Exposure to Asbestos are contained in 29 CFR 1910 and 1926.

DRINKING WATER

FLUORIDES

Fluorides are compounds that contain an ionic form of the element fluorine.

Fluorides occur naturally in many water sources and are added in the treatment process by many public water systems. Fluorides in amounts between 1.0 and 1.5 mg/l have beneficial effects in reducing tooth decay. Amounts above 4.0 mg/l may cause bone and skeletal changes. Amounts greater than 2 mg/l can cause discoloration of teeth.

Does The Fluoride Regulation Apply To My Community?

Yes, all community public water systems must test for fluoride every three years (groundwater) or every year (surface water).

Timetable (For Revision Of Regulations)

Testing for fluoride was required prior to the 1986 SDWA (Safe Drinking Water Act) Amendments. The new regulations on fluorides continue the testing requirement of every three years for ground water supplies and every year for surface water supplies (Usually done with the routine testing for other regulated inorganic chemicals -IOCs.). Waivers from fluoride monitoring as for other IOC's are possible. A new MCL was set in the final rules published on April 2, 1986 and became effective in October 1987.

MCLs

MCL = 4.0 mg/l (secondary standard suggested level = 2.0 mg/l).

If your tests show levels less than the 2.0 mg/l, your community needs to do nothing about fluoride. Plan your next routine test in one or three years.

Actions Your Community Should Be Taking

If your tests indicate fluoride levels between 2.0 and 4.0 mg/l, you should check with your state agency and/or consulting engineer to see if any changes in operations can be made to lower the fluoride level. As this is not an MCL violation, immediate action is not required, but planning should be undertaken to reduce levels below 2.0 mg/l. The State may require more frequent sampling to monitor the fluoride level. Public notice is required for levels between 2.0 and 4.0 mg/l. The mandatory text of this notice is given in Section 143.5 of the National Secondary Drinking Water Regulations.

If Your Tests Indicate Fluoride Levels Above 4.0 mg/l, You Are In Violation Of The MCL, And You Should:

-Contact the State. They will assist you to form the contents of a public notice you are required to give your customers (See Public Notification section.).

-Work with the State and/or engineer to plan for a change in your water supply and/or treatment system to lower the fluoride levels.

-Continue regular testing, as suggested or required by the State to monitor fluoride levels while you are working on solutions. Notify the public periodically, as required.

Solutions to fluoride MCL violations for very small water systems usually involve finding and using a new water source or mixing existing sources to reduce the fluoride level. Removing fluoride through treatment can be cost prohibitive for very small systems.

Additional Information

The rule for fluoride is contained in 40 CFR 141.23 and 141.62.

"Removal of Excess Fluoride in Drinking Water," "Fluoridation Engineering Manual," EPA, available from the Safe Drinking Water Hotline: 1-800-426-4791.

DRINKING WATER

LEAD MATERIAL BAN

Lead is a metal which, in the past, has been used for water supply pipe, joints in other pipe materials and in alloy with other metals as solder in joining copper pipe and in the manufacture of water supply fixtures. Lead has been identified as a cause of central and peripheral nervous system damage, kidney effects and can be highly toxic to infants and the developing fetus of pregnant women. Lead in plumbing materials may be leached into drinking water by corrosive water.

Does The Lead Material Ban Apply To My Community?

Yes, the use of solder containing more than 0.2% lead in the installation of new plumbing in customers' facilities that are connected to the public water supply is banned. Also, pipes and pipe fittings may not contain more than 8.0% lead. The law applies only to plumbing which distributes drinking water and does not require the removal of existing lead pipes or solder.

Timetable and MCLs

On October 28, 1987, specific public notice requirements were published as a final rule. There is no MCL involved in the Lead Material Ban. See the section on Lead and Copper for additional information.

Actions Your Community Should Now Be Taking

-Inform customers involved in new construction or the replacement of plumbing that the lead materials ban is in effect for your water system. (Requiring a simple permit and inspection of new plumbing is one way some communities carry out this information requirement.)

-Make information available to your customers on the actions they can take to reduce lead levels in the water they consume in their own home.

-If your water supply is very corrosive, contact the State and/or your community's engineer to plan for ways you can reduce the corrosive impact of your water on the lead that may be contained in customers' plumbing.

-If you have lead pipe or fixtures in your distribution system, consider replacement with non-lead materials. Leaded joints in old cast iron or other pipe is not believed to leach significant amounts of lead into the water. Replacement is not required by the Lead Ban but may be required for systems that continue to exceed the lead or copper action levels under the Lead Copper Rule.

Additional Information

The statute for the Lead Material Ban is contained in the Safe Drinking Water Act, section 1417(a)(1) & (2).

"Lead and Your Drinking Water," EPA, available from the National Safe Drinking Water Hotline: 1-800-426-4791.

"The Lead Ban: Preventing the Use of Lead in Public Water Systems and Plumbing Used for Drinking Water, " EPA. Available from the National Safe Drinking Water Hotline at 1-800-426-4791.

DRINKING WATER

LEAD AND COPPER

Lead and copper are inorganic chemicals that are occasionally found in water supplies and are frequently leached out of plumbing in water systems that have corrosive water. Lead can cause central and peripheral nervous system damage, kidney effects and be highly toxic to infants and in the developing fetus of pregnant women. Copper causes taste problems and stains porcelain and can also cause stomach and intestinal distress.

Timetable

Testing and MCL compliance for lead has been in effect for a number of years prior to the 1986 SDWA Amendments for community water supplies. In June 1991, EPA published new rules that deleted the MCL for lead but required that additional sampling be done at customer taps. High levels of lead and copper at the customer taps will trigger requirements of treatment of the water supply to reduce corrosivity. Public education should also be provided to help customers reduce their intake of lead and copper.

Action Levels Per The New Rule:

-The treatment technique requirements are triggered by exceedances of the lead action level of 0.015 mg/l or the copper action level of 1.3 mg/l measured at the 90th percentile.

-All public water systems are required to collect one sample for lead and copper analysis from the following number of sites during each six month monitoring period.

System Size (Population)	No. of Sampling Sites (Initial Base Monitoring)	No. of Sampling Sites (Reduced Monitoring)
501 to 3,300	20	10
101 to 500	10	5
<100	5	5

The above samples must be collected per monitoring period. For small water systems, there are two monitoring periods per calendar year, July 1993 to December 1993 and January 1994 to June 1994.

Compliance Deadlines

ACTION	SYSTEM SIZE 3,300-50,000	<3,300
Begin monitoring	July 92	July 93
Complete treatment study (if required by State)	July 95	July 96
Recommend treatment to State		
-Study not required	Jan 93	July 94
-Study required	July 95	July 96
Complete treatment installation		
-Study not required	July 96	Jan 98
-Study required	Jan 98	Jan 99
Complete follow-up monitoring		
-Study not required	July 97	Jan 99
-Study required	Jan 99	Jan 2000

Sample Collection Methods And Locations

-First flush tap water samples must stand motionless for at least six hours before the samples are collected.

-One liter of water must be drawn from the cold water kitchen or bathroom tap.

-Systems may collect samples or enlist residents to collect samples. Residents fill the container supplied by the water system according to directions and leave the container for the system to pick up.

-Begin tap water monitoring program by July 1993. Tap water samples must be collected at high risk locations:

- o homes with lead solder installed after 1982,
- o homes with lead pipes,
- o homes with lead service lines.

Public Education Program Requirements:

PWSs which exceed the lead action level must deliver a public education program to their consumers. Please note that this program is different from the public notification requirements discussed separately beginning on page 65.

The rule provides specific language for use in all printed materials, public service announcements (PSAs) and broadcast materials. This language describes the potential health effects of excess exposure to lead and the reasons why lead in drinking water is of particular concern. It provides step-by-step instructions for water testing and follow-up actions that can be taken to reduce both short-term and long-term exposure to lead in drinking water. The rule also requires the water system to provide tap collection for any customers who request this service. The system, however, is not required to pay for collecting and analyzing the sample.

The program must be delivered to your entire service area, and targeted to high-risk segments of the population . The following are required:

- Distribute informational notices in water utility bills, along with a special alert on the water bill itself, *every 12 months*;

- Publish informational notices in major local newspapers, *every 12 months;*

- Deliver brochures *every 12 months* to specified facilities and organizations, including public schools and/or local school boards; city or county health departments; Women, Infants and Children (WIC) and/or Head Start programs ; public and private hospitals and clinics; family planning clinics and local welfare agencies; and

- Release PSAs every six months to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

Water systems must perform these actions within 60 days from the time the lead action level is exceeded and repeat for as long as the action level is exceeded.

The community must also submit a letter to the State by December 31st of each year demonstrating compliance with the public education aspects of the regulation.

Additional Information

The regulations for lead and copper are contained in Subpart I of 40 CFR Part 141.

"Fact Sheet: National Primary Drinking Water Regulations For Lead and Copper" available from EPA.

WATER PROGRAMS

DRINKING WATER

SYNTHETIC ORGANIC CHEMICALS (Non-Volatile)

Synthetic organic chemicals (SOCs) are man-made compounds used for a variety of industrial and agricultural purposes. For monitoring purposes, the SOCs are divided into two groups - volatile synthetic organic chemicals (VOCs) and others which are usually called pesticides and PCBs. This page will discuss SOCs that are not volatile. VOCs will be discussed on a separate page. Also see the page on disinfection by-products. SOC effects include damage to the nervous system, kidneys and cancer risks.

Timetable (For Revisions To Regulations)

New regulations called Phase II were final January 30, 1991. These regulations added 13 new SOCs and revised five SOCs. All community and non-transient non-community PWSs will be required to test for SOCs. Several methods are required to test for all the SOCs, which adds tremendously to the cost.

The Phase V regulations, which were final on July 17, 1992, added 15 non-volatile SOCs and three VOCs. The procedures and monitoring requirements are the same for these contaminants as required under the Phase II rule. Because EPA is required to add contaminants to the list to be regulated on a regular schedule, SOCs will probably be added to the list.

MCLs (on back of page)

These MCLs are not enforceable in very small systems until 48 months after the final rules are published.

If Your Tests Indicate Levels Of A SOC Higher Than The MCL (Year Average), You Are In Violation Of The MCL. You Should:

-Continue quarterly sampling (at times of highest vulnerability, i.e., after fertilizer application and a rain).

-Notify the State and complete public notices as required.

-Request an exemption from the State to allow the community to continue to use the water supply while the solutions to the MCL violation are being explored and any needed financing is being planned.

-Work with the State and/or your engineer to determine how SOCs are getting into your water supply. If possible, eliminate the source of contamination. If you must treat your water supply to remove the SOCs, work with your engineer to choose the best available technology for treatment.

Additional Information

- The rules for SOCs are contained in 40 CFR 141.24 and 141.61.
- "Pesticides in Drinking Water Wells, " EPA. (Agricultural Extension Service offices also have useful pamphlets on pesticides.)

Phase II

Contaminant	MCL
Alachlor	0.002 mg/l
Aldicarb*	0.003 mg/l
Aldicarb Sulfoxide *	0.004 mg/l
Aldicarb Sulfone *	0.003 mg/l
Atrazine	0.003 mg/l
Carbofuran	0.04 mg/l
Chlordane	0.002 mg/l
Dibromochloropropane (DBCP)	0.0002 mg/l
2,4-D	0.07 mg/l
Heptachlor	0.0004 mg/l
Heptachlor Epoxide	0.0002 mg/l
Lindane	0.0002 mg/l
Methoxychlor	0.04 mg/l
PCB's	0.0005 mg/l
Pentachlorophenol	0.001 mg/l
Toxaphene	0.003 mg/l
2,4,5-TP (SILVEX)	0.05 mg/l
Acrylamide	Treatment Technique
Epichlorohydrin	Treatment Technique

*These have been suspended, and will not be enforceable under current regulations.

Phase V (SOCs)

Endrin	0.002 mg/l
Dalapon	0.2 mg/l
Diquat	0.02 mg/l
Endothall	0.1 mg/l
Glyphosate	0.7 mg/l
Di (Ethylehexyl) Adipate	0.4 mg/l
2,3,7,8-TCDD(Dioxin)	3 x 10 (-8) mg/l
Hexachlorocyclopentadiene	0.05 mg/l
Oxamyl (Vydate)	0.2 mg/l
Simazine	0.004 mg/l
PAH's [Benzo(a)pyrene]	0.0002 mg/l
Hexachlorobenzene	0.001 mg/1
Di(ethylhexyl) Phthalate	0.006 mg/l
Picloram	0.5 mg/l
Dinoseb	0.007 mg/l

DRINKING WATER

VOLATILE ORGANIC CHEMICALS

Volatile Synthetic Organic Chemicals (VOCs) are man-made compounds used for a variety of industrial and manufacturing purposes. VOCs tend to be in a gaseous form under conditions that may occur in a water system and then separate from the water supply. VOCs have various effects on the liver, kidneys, nervous system and some pose a cancer risk.

Do the VOC regulations apply to my community?

Yes, the initial Volatile Organic Chemical (VOC) rule became effective on January 9, 1989. This rule, called Phase I, set maximum contaminant levels (MCLs) for eight VOCs and required all community and non-transient, non-community water supply systems to monitor for, and if necessary, treat their supply to remove these chemicals. VOC monitoring requirements were revised on June 30, 1991 to synchronize them with other VOC monitoring requirements in a new set of regulations called Phase II. This rule set MCLs for 10 additional VOCs. Other Phase II regulations became effective July 30, 1992. More new regulations, called Phase V, added three new VOCs. The Phase V rule becomes effective on January 31, 1994.

The VOC MCLs are listed below.

Phase I - Effective January 9, 1989

VOC	MCL (mg/l)
Benzene	0.005
Carbon Tetrachloride	0.005
1,2-Dichloroethane	0.005
Para-Dichlorobenzene	0.075
1,1-Dichloroethylene	0.007
1,1,1-Trichloroethane	0.20
Trichloroethylene	0.005
Vinyl Chloride	0.002

Phase II - Effective July 30, 1992

VOC	MCL (mg/l)
o-Dichlorobenzene	0.6
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.1
1,2-Dichloropropane	0.005
Ethylbenzene	0.7
Monochlorobenzene	0.1
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
Xylenes	10

Phase V - Effective January 30, 1994*

VOC	MCL (mg/l)
Dichloromethane	0.005
1,2,4-Trichlorbenzene	0.07
1,2,2-Trichlorethane	0.005

*Public water supply systems with 150 or more service connections must begin monitoring in the January 1, 1993 to December 31, 1995 time period.

Monitoring Requirements

A major feature introduced in Phase II is its plan for synchronizing compliance monitoring across several existing and upcoming rules. Under this Standardized Monitoring Framework, the various monitoring frequencies for most source-related contaminants will be coordinated within compliance periods of three years each. Some monitoring and related system activities, such as vulnerability assessments, will occur at intervals which may span across up to three of these three-year periods, forming a nine-year compliance cycle. The first compliance cycle and the initial compliance period both begin on January 1, 1993.

Other features of Phase II monitoring requirements include:

Sampling location - Groundwater systems must sample at entry points to the distribution system which are representative of each well after any application of treatment. Surface water systems must sample at points within the distribution

system which are representative of each source or at entry points to the distribution system after any application of treatment. Samples must be analyzed by a Kansas-certified lab.

Initial sampling frequency - All systems must sample at a base (or minimum) frequency which is specific for a contaminant or contaminant group. The State may grant monitoring waivers (as discussed below) and may allow a system to substitute suitable previous monitoring data for this initial monitoring. In the initial compliance period, the State will determine the actual year in which a system samples.

Repeat sampling frequency - In general, if a system does not detect contaminants in initial samples, then repeat sampling frequencies will be lower than initial frequencies. Repeat monitoring requirements are generally the same for all systems regardless of system size or water source.

Trigger to increase monitoring - If contaminants are detected in any sample, the system must begin quarterly sampling until the state determines that subsequent results are "reliably and consistently" below the MCL. At least two to four samples must be taken before this determination may be made. Detection is defined separately for various contaminants or contaminant groups at either the MCL, 50 percent of the MCL, or at the analytical method detection limit.

Monitoring waivers - Sampling frequencies may also be reduced or eliminated if the system obtains a waiver based on: previous sampling results and/or an assessment of the system's vulnerability to each specific contaminant.

Additional Information

The rules for VOCs are contained in 40 CFR 141.24 and 141.61.

Compliance Monitoring Requirements

Contaminant	Base Requirement		Trigger that Increases Sampling	Waivers for Base Requirements
	Ground water	Surface water		
Asbestos	1 Sample every 9 years		> MCL	YES Based on VA[1]
Nitrate	Annual	Quarterly	≥ 50% MCL	NO
	After 1 year < 50% of MCL, SWS may reduce to an annual sample			
Nitrite	1 Sample: If < 50% of MCL, state discretion		≥ 50% MCL	NO
Inorganics	1 Sample every 3 years	Annual sample	> MCL	YES Based on analytical results of 3 rounds
VOCs[2]	4 Quarterly samples every 3 years Annual after 1 year of no detects		> 0.0005 mg/L	YES Based on VA[1]
17 Pesticides and other SOCs	4 Quarterly samples every 3 years After 1 round of no detects: systems >3300 reduce to 2 samples per year every 3 years; systems ≤ 3300 reduce to 1 sample every 3 years		Method Detection Limit (MDL)	YES Based on VA
Unregulated IOCs[2] SOCs[2]	1 Sample 4 Consecutive quarterly samples		N.A.	YES Based on VA[1]

[1] VA = Vulnerability Assessment

[2] VOCs - Volatile Organic Chemicals
IOCs - Inorganic Chemicals
SOCs - Synthetic Organic Chemicals (Non-Volatile)

DRINKING WATER

COLIFORM MONITORING

Bacteria from sewage and animal wastes have presented the most frequent and immediate health risks to public water supplies over the years. Coliform bacteria, specifically the presence of fecal and *E. coli* bacteria, are used as the best and most easily tested for indicators of potentially harmful bacteria in the water.

Does The Coliform Monitoring Rule Apply To My Community?

Yes, all community public water systems must submit samples for coliform bacteria testing on a regular monthly basis. Failure to submit samples, meet the MCL and report non-compliance are all violations of the rule.

Timetable

Your community has been required to test for coliform bacteria for many years. The 1986 Amendments to the Safe Drinking Water Act caused new rules to be published that change some of the procedures for testing, change the MCL and require certain public notification related to coliform monitoring. These rules were published in final form on June 29, 1989, and became effective December 31, 1990.

MCLs

The MCL is based on the presence or absence of total coliforms in a sample (the old MCL was based on an estimate of coliform density). The presence of total coliform bacteria indicates the possible presence of fecal and disease-causing bacteria. A small water system may have no more than one coliform-positive sample per month.

Monitoring Requirements

You are required to submit a minimum of two routine samples per month for your system. (Carefully follow procedures for sampling provided by your testing laboratory or the state agency.). Samples are to be from different customer taps from month to month. If the sample tests positive for total coliforms, you must (within 24 hours of notification of the result) collect four repeat samples for each positive routine sample. These repeat samples must be collected within five service connections of the original sample with at least one being at the original location, at least one upstream and at least one downstream. If total coliforms are detected in any repeat sample, your water system is in violation of the MCL and you must notify the State no later than the end of the next business day that you learned of the violation.

If fecal coliforms or *E. coli* are identified in a repeat sample following a routine total coliform positive sample (or vice versa), it becomes an acute violation and you must notify the State the same day you receive the results. During the month following one or more positive coliform samples, you must collect a minimum of five routine samples. The State may choose to require more routine samples per month.

A sanitary survey of your system is required at least every five years (usually done by the state). The initial survey must be completed by June 29, 1994. Without the sanitary survey, you would have to collect a minimum of five routine samples every month.

Actions Your Community Should Be Taking If Your System Is Not Having Total Coliform Positive Tests:

-Continue to submit regular samples and review results.

-Maintain a good operation and maintenance program for your water system including regular line flushing at fire hydrants and on dead ends.

If Your System Has A Coliform-Positive Sample Result:

-Immediately take and process your repeat samples.

-Carefully review your sample taking procedures to be sure you are not accidentally contaminating the samples.

-Call the State and ask for help to locate any possible sources of contamination.

-Follow the State's direction in issuing public notices and any state emergency measures that may be required.

Additional Information

The rule for coliform monitoring is primarily contained in 40 CFR 141.21 & 141.63, and public notice rules in 40 CFR 141.32.

DRINKING WATER

SURFACE WATER TREATMENT RULE

The Surface Water Treatment Rule (SWTR) was published in the *Federal Register* on June 29, 1989. It became effective on December 31, 1990. This rule requires water treatment in lieu of water testing because it regulates contaminants which are difficult to detect and pose acute health risks.

Under this rule, disinfection and filtration are required for surface water systems and for groundwater systems under the direct influence (UDI) of surface water. These systems must install filtration if the microbiological, turbidity and other standards in this rule are not met. All surface water systems must disinfect and filter under Kansas requirements.

Does The Surface Water Treatment Rule Apply To My Community?

Yes, it applies to all Public Water Supply Systems (community and non-community) using a surface water source (i.e. water open to the atmosphere and subject to surface runoff) or a groundwater source under the direct influence of surface water.

Water Treatment Requirements

Specific enforceable MCL standards for these microbial contaminants are not established in this rule. Instead, treatment will be required for surface water systems.

Criteria For Filtered Systems

Systems which filter their water must ensure that the overall filtration and disinfection process they use is performing effectively as demonstrated by turbidity and disinfection criteria. These criteria are given in the table on the following page. As with unfiltered systems, effectiveness will be demonstrated in part by the amount of disinfectant and the length of time it is in contact with the water before reaching the first customer.

Filtered System Criteria

Criterion	Standard
Turbidity	<5 NTU at all times <0.5 NTU in 95% of all samples
Disinfection	
Giardia	99.9% effective
Viruses	99.99% effective
Residual	0.2 mg/l at entry

Systems are given time to comply with the water quality standards and treatment requirements of this rule. Specific dates are given in the following table.

Surface water (SW) systems

- Filtered systems must meet monitoring and treatment performance requirements beginning 48 months after the rule becomes effective.

Groundwater Systems Under Direct Influence Of Surface Water (GW-UDI)

-States will determine which community water systems are under direct influence of surface water within five years after the rule becomes effective.

Compliance Dates

System Type	Requirement	Date
SW-F	Performance and monitoring	6/29/93
GW-UDI	State must notify system that it is UDI	6/29/94

Additional Information

The rules for surface water treatment are contained in Subpart H of 40 CFR Part 141.

EPA's "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water." Call the Safe Drinking Water Act Hotline: 1-800-426-4791.

DRINKING WATER

RADIONUCLIDES

Radionuclides are radioactive particles that occur naturally in areas of uranium and radium deposits and in waste from man made processes. Radionuclides, even in very small concentrations, pose a cancer risk.

Does The Radionuclides Regulation Apply To My Community?

Yes, radionuclides have been regulated since 1976 with MCLs currently set for four types. All community public water systems must test for radionuclides at least every four years.

Timetable (For Revision Of Regulation)

In July 1991, proposed regulations were published that added MCLs for two additional radionuclides, Radon and Uranium. Final new rules may be published in late 1993. Systems will begin to monitor under the new radionuclide rules in 1996. Until then, continue to monitor under the old rules.

MCLs

The following are current MCLs for radionuclides and the levels that are proposed. The units of measure are peculiar to radioactivity and represent very small quantities.

	Current MCL	MCL Likely to be Adopted
Gross Alpha Particle Activity	15 pCi/l	15 pCi/l
Beta Particle & Photon Activity*	4 mrem/yr.	4 mrem/yr
	(*Only if designated by the State)	
Combined Radium - 226 & 228	5 pCi/l	-
Radium - 226	-	20 pCi/l
Radium - 228	-	20 pCi/l
Uranium	-	20 ug/l
Radon	-	300 pCi/l

Actions Your Community Should Be Taking

Submit samples as required for routine testing. The monitoring process requires one sample every three months for one year (four samples in total). Compliance with the MCL is based on an average of the four quarterly samples. Unless test results indicate radionuclide values above or near the MCL, the test is repeated only every four years. Mark your calendar a few months prior to the four year time limit to remind yourself to test.

If Your Tests Indicate Levels Of Radionuclides Higher Than The MCL, You Should:

-Ask the State if you should resample to confirm the test results. The State may also require you to continue quarterly sampling until the MCL level is met.

-Follow the State's instructions regarding when and what type of public notice you need to give.

-Request an exemption from the State to allow the community to continue to use the water supply while solutions to the MCL violation are being explored and any needed financing is being planned.

-Start working with the State and/or engineer to consider options to eliminate the radionuclides from your system. In nearly all small community water systems, finding a different source of water supply is the most economical solution to a radionuclide problem.

-Remember that exposure to radionuclides at levels found in water is a risk over long term exposure. It is not an acute risk for short periods of time. Don't panic or start unrealistic fears. Do proceed to work out a reasonable and affordable solution for your drinking water supply.

Additional Information

The rule for radionuclides is contained in 40 CFR 141.15, 141.16, 141.26.

"A Study of Possible Economical Ways of Removing Radium From Drinking Water" is available from EPA by calling the Safe Drinking Water Hotline at 1-800-426-4791.

DRINKING WATER

DISINFECTION AND DISINFECTION BY-PRODUCTS

Disinfectants (such as chlorine) are the primary defense against diseases caused by microbiological contaminants in public water systems. More than 90% of surface water supply systems disinfect their water while less than half of the ground water supplies are disinfected. Although disinfection is the single most important treatment technique in use in public water supplies, the disinfectants themselves can react with organic materials in water supplies. Disinfection by-products (DBPs) may be formed which may contaminate the water with compounds that increase cancer risk.

Do The Disinfection And Disinfection By-products Regulations Apply To My Community?

Yes, all community and NTNC public water systems will be required to disinfect their water, with allowance for variances if the water comes from sources that are determined not to be at risk from microbiological contamination. Monitoring for DBPs will be limited to systems that are determined vulnerable to their development.

Timetable

Surface water supplies are now covered by final rules on filtration and disinfection that were published by EPA on June 29, 1989. These rules require disinfection of all surface water supplies and become effective over the next three years as determined by state schedules. Rules for general disinfection of all drinking water supplies are expected to be proposed in June 1993 and will include MCLs for a number of disinfectants and disinfection by-products. At present, three disinfection by-products (trihalomethanes) are regulated but only in community supplies of 10,000 or greater population.

MCLs

Proposed MCLs have not yet been circulated. The MCL for total trihalomethanes is 0.1 mg/l.

Actions Your Community Should Be Taking

Kansas requires that all drinking water supplied to the public by a water supply system be disinfected. When chlorination is used, a sufficient amount of chlorine shall be added to the water to maintain a measurable chlorine residual throughout the distribution system with a residual of 0.2 mg/l of free chlorine or 1.0 mg/l of combined chlorine at the ends of the distribution system. The operator shall make a daily determination of the chlorine residual and record it in such a manner that KDHE can determine if its requirements have been met.

Additional Information

The authority for Disinfectants and DBPs is in Section 1412 (b) (8). of the SDWA.

"Protecting Our Drinking Water From Microbes," EPA, available by calling the National Drinking Water Hotline 1-800-426-4791.

DRINKING WATER

PUBLIC NOTIFICATION

With the enactment of the Safe Drinking Water Act, Congress requires that public drinking water systems notify their customers when drinking water standards are violated. The purpose of public notification is to inform consumers of any potential adverse health effects and to describe what steps consumers can take to minimize the impact. The notification should also educate the consumer about the needs of the public water system to assure the delivery of safe drinking water.

Do The Public Notification Rules Apply To My Community?

Yes, the Safe Drinking Water Act requires owners/operators of all community public drinking water systems to notify the persons they serve if certain violations of the National Primary Drinking Water Regulations or certain other specified events occur.

Timetable

Public Notification rules are now in effect for all contaminants that your community is required to monitor for. As new contaminants are regulated and monitoring is required in your community, you are also required to give public notification when violations occur. This information describes the Federal Rules. The State may add requirements for your area.

Types Of Violations Requiring Public Notification

There are six violations or events that require Public Notification:

1. Failure to comply with an applicable maximum contaminant level (MCL)

2. Failure to comply with a prescribed treatment technique

3. Failure to perform water quality monitoring (testing) as required by the regulations

4. Failure to comply with testing procedures as prescribed by a National Primary Drinking Water Regulation

5. Issuance of a variance or an exemption

6. Failure to comply with the requirements of any schedule that has been set under a variance or exemption

Notification Procedures

The method, timing and frequency of notifying the public varies based on the "level" of the violation and the availability of the public communication media. There are two "levels" of violation. Tier 1 violations include numbers 1, 2 and 6 listed above, namely, failure to comply with an MCL; failure to comply with a treatment technique; failure to comply with a schedule prescribed under a variance or exemption.

Tier 2 violations are less serious and have simpler notification requirements. They include numbers 3, 4 and 5 listed above, namely, failure to comply with monitoring requirements; failure to comply with testing procedures; operating under a variance or exemption.

Tier 1 violations are subdivided into "acute" and "non-acute" violations. "Acute" risks are those that involve an immediate risk to human health. These are violations specified by the state agency and presently must include violations of the MCL for nitrate and/or nitrite, violations of the MCL for total coliforms when fecal coliforms or *E. coli* are present and occurrences of a waterborne disease outbreak in an unfiltered surface water system.

Actions Your Community Should Take

If you are informed of test results that indicate you are in violation of an MCL or you are informed of another violation, immediately contact the State and notify them of the violation and ask their direction in proceeding with public notification (Note: the State may declare a sample invalid or require a check sample before confirming a violation and thereby ask you to delay public notification.).

Methods Of Notification

- In communities with a daily (or weekly) newspaper of general circulation (received by most households):

Tier 1 Violations

1. Provide notice within 14 days of the violation through the newspaper, AND

2. Provide notice by direct mail or hand delivery within 45 days of the violation. Repeat this notice every three months as long as the violation continues, AND

3. For ACUTE VIOLATIONS ONLY - Deliver notice to the principal television and radio station serving the area within 72 hours following the violation.

Tier 2 Violations

1. Provide notice within three months of the violation through the newspaper, AND

2. Provide notice by mail or hand delivery within three months of the initial newspaper notice. Repeat this notice every three months as long as the violation continues.

- *In communities without a newspaper:*

Tier 1 Violations

1. For ACUTE VIOLATIONS ONLY - Provide notice by hand delivery or by posting within 72 hours of the violation, AND

2. For non-acute violations - Provide notice by hand delivery or by posting within 14 days of the violation, AND

3. Repeat the notice by hand delivery every three months or by continuous posting for the duration of the violation.

Tier 2 Violations

Provide notice by hand delivery or by posting within three months of the violation. Repeat the notice by hand delivery every three months or by continuous posting for the duration of the violation.

Information That Must Be Included In The Public Notice:

1. Must provide a clear and readily understandable explanation of the violation.

2. Must include information about any potential adverse health effects.

3. Must contain information about the population at risk.

4. Must contain information about the steps being taken to correct the problem.

5. Must contain information about the necessity of seeking alternative water supplies, if any.

6. Must include any preventive measures that should be taken until the violation is corrected.

7. Must be clear and conspicuous.

8. Must not contain unduly technical language.

9. Must not contain unduly small print.

10. Must not create problems that frustrate the purpose of the public notification.

11. Must include a phone number of the owner, operator or someone to contact at the public water system as a source of additional information.

12. Where appropriate, notices must be multi-lingual.

Mandatory Health Effects Language

EPA has established mandatory language on the health effects of contaminants found in drinking water. The EPA language must be included in notices by public water systems where the system is:

- In violation of an MCL or treatment technique,
- Has been granted a variance or exemption,
- Is operating under a variance or exemption,
- Fails to comply with a variance or exemption schedule.

Currently promulgated mandatory health effects language is included in the public notification regulations cited below.

Notice To New Billing Units

In addition to complying with the public notification requirements for Tier 1 violations, community water systems must provide notice to new billing units of any existing Tier 1 acute and non-acute violations. A copy of the most recent public notice must be given to all new billing units or hookups prior to or at the time service begins.

Additional Information

The rules for Public Notification are contained in 40 CFR 141.32.

"General Public Notification for Public Water Systems," EPA, available by calling the National Safe Drinking Water Hotline at 1-800-426-4791 for a free copy.

DRINKING WATER

Regulatory Development Schedule

An important part of planning is knowing the specific regulations that will affect your particular community and its public water system(s), and further, knowing **when** these regulations will be in effect and enforced **in your community**. Following is the most recent schedule for the development of the new federal regulations.

Rule	Status	Effective
Fluoride	Final	10/87
Lead Ban (SDWA 1417)	Final	06/86
Phase I Volatile Organics	Final	01/89
Public Notification	Final	04/89
Surface Water Treatment Rule	Final	12/90
Total Coliform Rule	Final	12/90
Phase II IOCs and SOC	Final	07/92
Lead/Copper	Final	12/92
Phase V IOCs and SOCs	Final	1/94
Phase III Radionuclides	Proposed	1994
Disinfection/Disinfection By-Products	TBP	1996
Revised Arsenic Standard	TBP	9/94
Sulfate Rule	TBP	10/93
Phase VIB SOCs and IOCs	TBP	1993
Repropose MCLs for aldicarb, aldicarb sulfoxide, aldicarb sulfone	TBP	2/93
Additional List Contaminants	TBP	1997

- TBP means To Be Proposed
- IOC means Inorganic Chemicals
- SOC means Synthetic Organic Chemicals
- Some effective dates are phased-in by system size (see below)
- EPA Rules are generally effective 18 months after being finalized

WATER PROGRAMS

DRINKING WATER

UNDERGROUND INJECTION CONTROL

The Underground Injection Control (UIC) program is authorized by the Safe Drinking Water Act. The program is primarily preventative in nature and regulates such aspects as siting, construction, operation, monitoring and testing of various types of wells used to inject fluids underground. Five classes of wells are recognized, including:

Class I - Used to inject industrial, municipal or hazardous wastes below the lowest underground source of drinking water (USDW).

Class II - Used to inject fluids associated with oil and natural gas production.

Class III - Used to inject fluids for extraction for minerals such as salt and uranium

Class IV - Used to inject hazardous or radioactive wastes into or above a USDW.

Class V - Wells not otherwise classified and generally used to inject non-hazardous fluid into or above a USDW.

Class I, II, and III wells have specific requirements regarding their construction and operation, and have been generally accounted for. Class IV wells are banned unless they are part of an authorized groundwater cleanup. Closure is required for a well identified as Class IV. Class V well occurrence is not as well documented since this category includes any well not covered under the first four Classes. There are a variety of constructions and uses for Class V wells, including deep cased wells, seepage pits, cesspools and septic tanks with lateral (tile) fields. (Septic tanks handling strictly domestic wastewater and serving fewer than 20 persons a day are exempt from UIC regulation.) These factors make this type of well difficult to locate. Many Class IV wels are mis-identified as Class V wells.

Class IV and V wells can serve virtually any type of industrial or commercial facility including automotive service stations, lawn services, laundries and dry cleaners, transportation and road facilities, local weed control authorities, photo processing labs, electroplating companies, printers and lithographers, chemical plants, electronics manufacturers, pharmaceutical plants, food processors and many more.

All classes of injection wells are regulated by EPA through either primacy programs or direct implementation programs administered by EPA. Kansas has a primacy program.

Additional Information:

Regional Contact:

UIC Program
Water Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7032

State Contact:

Industrial Programs Section
Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-5560

WATER PROGRAMS

Kansas Water Well Protection Program

The Kansas Water Well Protection Program is administered by KDHE, and works to protect groundwater from contamination and insure the safety of human lives. These goals are achieved through licensure of water well contractors, public education, technical assistance and enforcement. KDHE's water well program is assisted by local levels of government.

In Kansas, every time a water well is constructed, reconstructed, or plugged, a water well record (WWC5 form) must be submitted to KDHE. This record identifies well information such as its legal location, method of construction, reason for construction, lithology, etc.

One aspect of the program includes licensure of water well contractors. Individuals interested in becoming a licensed water well contractor should complete an application form from KDHE. Once KDHE receives the completed application and $10 application fee, the individual is scheduled for a licensure examination. Upon completion of the examination, the individual must pay a $100 licensure fee plus $25 for each operating rig. Licenses expire each June 30. To keep the license active, the fees must be paid by July 1 of each year, regardless of when the individual was initially licensed.

An individual does not have to be licensed in order to perform water well construction, reconstruction or plugging on his/her own land. However, an individual hired to perform these activities on someone else's land must be a Kansas licensed water well contractor. In either case, WWC5 form must be completed and submitted to KDHE within 30 days from the finished constructing, reconstructing, or plugging date. Water well contractors are required to pay a $5 fee to construct or reconstruct a well. No fee is required to plug an abandoned well.

All abandoned wells are required by law to be plugged. It has been roughly estimated that approximately 500,000 abandoned water wells are located within the State of Kansas. Because of this extremely high estimate, KDHE's water well program has placed high priority on plugging abandoned water wells.

For Further Information:

Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-3565

or contact your local health department

WELLHEAD PROTECTION

The 1986 Amendments to the Safe Drinking Water Act (SDWA) call upon each state to develop a Wellhead Protection (WHP) Program. This legislation established a nation-wide program to encourage states to develop systematic and comprehensive programs within their jurisdictions to protect public water supply (PWS) wells and wellfields from contamination.

The statute specifies that all states will participate. However, the EPA has no authority to establish a WHP Program if a state chooses to forego action on its own. There are no sanctions against states that do not participate. States are encouraged to participate and to exercise individual discretion in developing methods of protecting ground water used for drinking water.

Under SDWA, Section 1428, each state must develop a WHP Program that consists of several elements. At a minimum, each state's WHP Program must:

-Specify roles and duties of state agencies, local government entities and public water suppliers, with respect to WHP Programs;

-Delineate the wellhead protection area (WHPA) for each wellhead;

-Identify sources of contaminants within each WHPA;

-Develop management approaches to protect the water supply within WHPAs from such contaminants;

-Develop contingency plans for each public water supply system to respond to well or wellfield contamination;

-Site new wells properly to maximize yield and minimize potential contamination; and

-Ensure public participation.

Actions Your Community Should Be Taking

The EPA has responsibility for approving WHP programs and for providing technical support to state and local governments. States shall develop and implement WHP programs that meet the requirements of the SDWA Amendments. Local governments should develop WHP plans that protect their public drinking water supply from contaminants. An effective local program

needs participation at all levels of government and should use the state-approved WHP program as a means to accomplish this.

Local governments typically implement zoning decisions, develop land-use plans, oversee building and fire codes, implement health requirements, supply water and sewer services and enforce police powers. Each of these local powers may be used to protect the quality of local aquifers.

Local cities and counties are also often the innovators in developing wellhead protection programs by applying combinations of management techniques (e.g., zoning and source prohibitions) to meet unique local conditions. Localities often protect groundwater as part of larger projects, such as developing growth management plans or economic development efforts. In close cooperation with regional, state and federal agencies, local governments can take positive steps to protect their wellhead areas.

Additional Information

Regional Contact:

Wellhead Protection Program
Water Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7033

State Contact:

Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-5558

WASTEWATER

State Revolving Fund Loan Program

The 1987 Amendments to the Clean Water Act authorized the Administrator of the EPA to make grants (called capitalization grants) to the states for deposit in State Water Pollution Control Revolving Funds (SRF). Using the SRF, states can provide loans and other types of non-grant financial assistance to communities and intermunicipal and interstate agencies for the construction of publicly-owned wastewater treatment facilities and for implementation of nonpoint source management and groundwater control programs.

In Kansas, the SRF makes low-interest loans available to Kansas cities for such projects as sewage treatment plants, interceptors, inflow/infiltration collection/control, collector sewers and major sewer rehabilitation. Up to 10 % of monies must be made available to communities with populations less than 5,000.

The Fund is projected to build a total asset balance of about $90 million by 1995, which can support $12 million/year of loans ($1.2 million for communities of less than 5,000). SRF loans can be combined with Community Development Block Grants (CDBG) to finance water pollution control projects.

To qualify for a loan, a project must submit a request to be included on the Priority List, have sufficiently high ranking to move to the Intended Use Plan, and submit a completed application including plans and specifications to the KDHE. A loan agreement is signed when project design and the application is complete. Projects must comply with federal requirements for facility planning, environmental clearances and construction contracts.

Once a loan agreement is executed, the scope of the project and the interest rate are fixed for the term of the loan. The loan amount may increase or decrease based on actual costs within the scope of the project. Nearly all project costs can be included in the loan amount, including the costs of temporary financing and interest during construction, with the exception of costs for land, easements and private sewers.

In addition to the federal funds, their must be a minimum 20 % match in State funds. The match in Kansas is funded by revenue bonds issued by the Kansas Development Finance Authority (KDFA), a quasi-state agency. The Fund is administered by KDHE in conjunction with the KDFA.

Additional Information

U. S. EPA State Revolving Fund Program Implementation Regulations, 40 CFR 35.

Regional Contact:	State Contact:
SRF Program	Municipal Programs Section
Water Management Division	Bureau of Water
EPA Region 7	KDHE
726 Minnesota Ave.	Forbes Field, Bldg 740
Kansas City, KS 66101	Topeka, KS 66620-0001
1-913-551-7031	1-913-296-5534 or -5527

WATER PROGRAMS

WASTEWATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Public Law 92-500 amended the Federal Water Pollution Control Act in 1972 (later amended and renamed the Clean Water Act). It established a national policy to restore and maintain the chemical, physical and biological integrity of the nation's waters. The EPA or the state environmental control agency has responsibility for administering NPDES permits. In Kansas, a primacy state, KDHE administers the NPDES permit process. These permits are issued to operators discharging any pollutant (including wastewater effluent) to State/U.S. waters (such as streams, lakes, wetlands, etc.).

Specific terms and conditions for a NPDES permit vary from state to state, but each primacy state must administer the program to meet minimum EPA standards. In addition, permit requirements within a given state may also vary because of different geological conditions, the beneficial uses of the receiving water and other factors at the discharge site. The State of Kansas goes beyond the federal NPDES program, requiring permits for all discharging wastewater treatment facilities, and those with the potential to discharge. Discharging facilities must obtain a state and federal permit. Non-overflowing facilities are required to obtain a state permit. Permit limits are set based upon the State's Water Quality Standards. As the Water Quality Standards change, permit requirements may also change.

Actions Your Community Should Be Taking

Maximize community awareness and education concerning wastewater collection and disposal, available solution alternatives, funding resources and procedures for implementing the most appropriate wastewater collection and treatment facility. Numerous technical and administrative resources are available at little or no cost to the community.

Additional Information

Federal Water Pollution Control Act of 1972 (33 U.S.C. 1342).

EPA Administered Permit Programs: The National Pollutant Discharge Elimination System, 40 CFR 122.

Regional Contact:	State Contact:
NPDES Program	Technical Services Section
Water Management Division	Bureau of Water
EPA Region 7	KDHE
726 Minnesota Ave.	Forbes Field, Bldg 740
Kansas City, KS 66101	Topeka, KS 66620-0001
1-913-551-7034	1-913-296-5513 Or -5525

SEWAGE SLUDGE* USE AND DISPOSAL

Municipal wastewater sludge is a by-product of the wastewater treatment process. Sludge regulations ensure that sewage sludge is properly handled by disposal or reused as a soil conditioner or fertilizer.

Do The Sewage Sludge Regulations Apply To My Community?

Yes, the regulations apply if the wastewater treatment system includes any form of central treatment or mechanical plant, including an overflowing or non-overflowing lagoon, which will need to be cleaned. The regulations do not apply if individual on-site septic systems are used. However, the septage from the individual on-site systems must be properly handled according to the final regulations.

Timetable

The final sewage sludge regulations (Clean Water Act, Section 503) were published by EPA on February 19, 1993 and became effective March 22, 1993. If communities can meet the requirements of the sludge regulations without construction, it must be done by February 19, 1994. However, if construction is required, communities will have until February 19, 1995. Monitoring and record keeping must commence by July 19, 1993.

Actions Your Community Should Be Taking

Be aware of restrictions covering proper use of the sewage sludge for land application (agricultural and small quantity local use) and proper disposal (incineration, and surface disposal). Communities (except those with lagoons**) should immediately begin testing the sludge being disposed of to determine its quality. The communities should then evaluate which options are available based on the sludge in accordance with the regulations. If construction is required, the community should obtain the services of a Kansas-certified professional engineer to prepare plans and specifications, and provide them to the KDHE for construction of the required facilities.

These regulations are "self-implementing." In other words, they are in effect and enforceable regardless of whether or not they are in your current wastewater treatment facility permit.

*The term, "Biosolids," may be used instead of "sludge" in some literature.

**Lagoons are not required to comply with these regulations until the sludge is removed from the lagoon.

Additional Information

For information about domestic sewage from private systems, contact the Local Environmental Protection Program, KDHE, at 1-913-296-5558.

Sewage Sludge Technical Rule, 40 CFR Part 503.

Regional Contact:

Sludge Program
Water Managment Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7034

State Contact:

Technical Services Section
Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-5513 or -5527

WASTEWATER

PRETREATMENT REQUIREMENTS

Pretreatment refers to those measures taken to prevent pollutants, from sources other than conventional domestic wastewater, entering the wastewater system. Pretreatment is the treatment of a waste before it is discharged into the sanitary sewer. A pretreatment program includes ordinances, education, inspections, monitoring and enforcement.

Pretreatment requirements control pollutants which are incompatible, will interfere with the treatment process or will pass-through the publicly owned treatment works (POTW) and cause problems in the receiving stream or lake. In addition, pretreatment requirements will improve opportunities to recycle and reclaim domestic and industrial wastewaters and sludges.

Do The Pretreatment Requirements Apply To My Community?

Traditionally, the smaller POTWs with individual discharges are not required to establish local pretreatment programs. If non-domestic users in the community (such as sawmills, food processing plants, metal finishers, etc.) are discharging pollutants that could pass through the POTW untreated or interfere with operations, the community may have to implement a pretreatment program to satisfy the NPDES permit requirements.

Your current NPDES permit does contain a section on prohibited discharges and industrial waste. These are pretreatment requirements and are designed to insure that you protect your POTW.

If The Rule Applies To My Community, What Should I Do?

If you are required to establish a pretreatment program, your municipality will need to establish local ordinances implementing the pretreatment requirements and identify a person responsible for insuring the program is administered and enforced.

Discharge limitations are developed and enforced by POTWs to implement prohibitions and to protect the POTW. They are site specific to ensure pretreatment standards are in place to protect the POTW, the receiving stream and municipal sludge quality.

If your community wants to establish a local pretreatment program, and is not required to through your NPDES permit, contact KDHE or EPA for assistance.

Additional Information

Pretreatment Final Rule, 40 CFR 403.

Regional Contact:

Pretreatment Program
Water Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7034

State Contact:

Industrial Programs Section
Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-5552

WATER PROGRAMS

WASTEWATER

STORM WATER

The storm water regulations are a new part of the National Pollutant Discharge Elimination System (NPDES). As part of the Clean Water Act amendments of 1987, Congress acted to directly address storm water by adding Section 402(p). In response to these changes, EPA issued a final application rule in November 1990.

This regulation defines the initial scope of the NPDES permit program for storm water discharges. It defines the terms "storm water discharges associated with industrial activity," and "large and medium municipal separate storm sewer systems" and the permit application requirements for these discharges.

At this time, the municipal side of the program requires applications only from cities with a population of 100,000 or more, and counties having large populations in unincorporated, urbanized areas. Phase II (sometime after October 1994) may require communities less than 100,000 to obtain a permit and develop a storm water management program. It is unknown at this time if there will be exemptions for very small communities.

Only three industrial activities owned or operated by a municipality with a population under 100,000 are covered by the storm water regulations -- uncontrolled landfills, airports and power plants.

Actions Your Community Should Be Taking

Find out if the defined industrial operations owned or operated by the community (i.e. landfill, airport, wastewater treatment plant and power plant) need permits. The State or EPA contacts will be able to give assistance to determine which industrial operations need permits and how to apply for the permits.

Develop an information and education program for the community to increase awareness of the relation between the storm water drain system and the local lake or stream. Storm water runoff collects in street gutters and storm drains and flows directly to streams with little or no treatment. Citizens need to be educated so that they are aware of the role they play in the quality of the streams and lakes. Dumping used motor oil, unused paint, pesticides and other household chemicals on the ground or in the street can severely impact nearby surface water.

Communities should also consider establishing local ordinances controlling the improper disposal or discharge of pollutants to the municipal storm water drain system.

-For the following facilities, if materials are exposed to storm water: facilities classified under SIC codes 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25 (including food; tobacco, textile; apparel; wood kitchen cabinets; furniture; paperboard containers and boxes; converted paper/paperboard products; printing; drugs;leather; fabricated metal products; industrial and commercial machinery and computer equipment; electronic equipment; transportation equipment; measuring, analyzing and controlling instruments and photographic, medical and optical goods, and watches and clocks; miscellaneous; and certain warehousing and storage manufacturers).

Additional Information

Regional Contact:

Stormwater Program
Water Management Division
EPA Region 7
726 Minnesota Ave.
Kansas City, KS 66101
1-913-551-7034

State Contact:

Industrial Programs Section
Bureau of Water
KDHE
Forbes Field, Bldg 740
Topeka, KS 66620-0001
1-913-296-5553

Kansas Department of Health and Environment, Bureau of District Operations

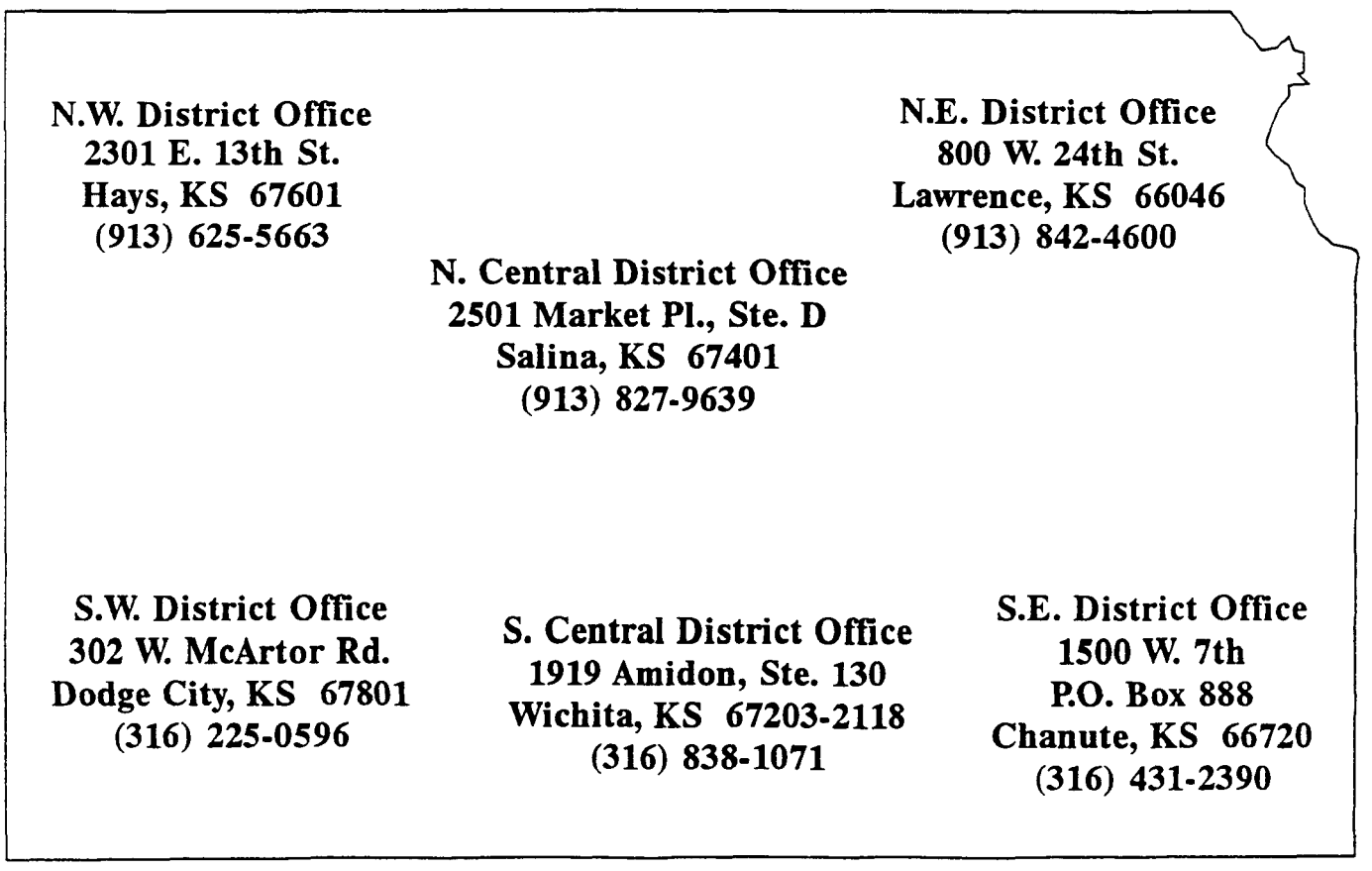
The Kansas Department of Health and Environment (KDHE) has six district offices located across the state (indicated on the map below). These offices serve as the agency's field arm, each staffed with environmental professionals who work to insure quality environment.

Communities with environmental questions or concerns regarding such topics as hazardous waste; solid waste; petroleum storage tanks; spills; drinking water; nonpoint source pollution; and air (open burning, incinerators, and CFCs) should contact the KDHE district office nearest them. All questions regarding asbestos should be directed to the Topeka Office at 913-296-1550, as the district offices do not handle inquiries regarding asbestos.

For further information or clarification, contact:

Kansas Department of Health and Environment
Bureau of District Operations
Forbes Field, Bldg. 740
Topeka, KS 66620-0001
(913) 296-0077

Kansas Department of Health and Environment
District Offices



DEFINITIONS-ACRONYMS

AHERA - Asbestos Hazard Emergency Response Act

ASHAA - Asbestos School Hazard Abatement Act

AST - Above ground storage tanks

Bacteria - Microbiological contaminants found in drinking water samples are fecal coliforms and the bacterium *E. coli*. Their presence is evidence of sewage contamination.

Biosolids - Sewage sludge, a byproduct of wastewater treatment.

BOD5 - Measurement of the oxygen required for the biochemical degradation of organic matter, and the oxygen used to oxidize inorganic material in water (usually wastewater, effluent, or receiving water).

CDBG - Community Development Block Grant

CERCLA - Comprehensive Environmental Response, Compensation and Liability Act , also known as "Superfund"

CFR - Code of Federal Regulations

CWS - Community Water Supply System

DBP - Disinfection By-product

EPA - Environmental Protection Agency

FIFRA - Federal Insecticide, Fungicide and Rodenticide Act

Groundwater - Water below the land surface that feeds wells and springs.

IOC - Inorganic Chemical

IRAA - Indoor Radon Abatement Act

KDHE - Kansas Department of Health and Environment, also "State"

KDFA -Kansas Development Finance Authority

LEA - Local Education Agency (school districts or co-operatives)

LEPC - Local Emergency Planning Committee, established under SARA

MCL - Maximum Contaminant Level

MSWLFC - Municipal Solid Waste Landfill Criteria

NESHAP - National Emission Standards Hazardous Air Pollutants

NPDES - National Pollution Discharge Elimination System

NPDWR - National Primary Drinking Water Regulation

NTNC - Non-transient, non-community

OSHA - Occupational Safety and Health Administration

pH - A measurement of hydrogen ion in a compound; determines whether a compound is "acidic" or "basic."

POTW - Publicly Owned Treatment Works

Primacy State - State that has received delegated authority from EPA to manage specific environmental programs.

PWS - Public Water Supply System

RACM - Regulated Asbestos-Containing Material

RCP - Radon Contractor Proficiency

RCRA - Resource Conservation and Recovery Act

RMP - Radon Measurement Proficiency

SARA - Superfund Amendments and Reauthorization Act

SDWA - Safe Drinking Water Act

SERC - State Emergency Response Commission, established under SARA

SIC - Standard Industrial Classification

SMCRA - Surface Mining Control and Reclamation Act

SMF - Standardized Monitoring Framework

SOC - Synthetic Organic Chemical (non-volatile)

SRF - State Revolving Fund

SWTR - Surface Water Treatment Rule

TBP - To be proposed

TCLP - Toxicity Characteristic Leaching Procedure

TSCA - Toxic Substances Control Act

UIC - Underground Injection Control

USDW -Underground Source of Drinking Water

UST - Underground Storage Tank

VOC - Volatile Organic Chemical

WHP - Wellhead Protection

WHPA - Wellhead Protection Area