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ABSTRACT
 This document is an instructional module package prepared in objective form for use by an instructor familiar with Federal and Iowa laws relating to public water supply and water pollution control, local code enforcement and right-of-way acquisition. Included are objectives, instructor guides, and student handouts. The module considers an overview of the U.S. Environmental Protection Agency (EPA) and the Iowa Department of Environmental Quality (DEQ), and analyzes the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500), of the Federal Safe Drinking Water Act (PL 93-523), and the Iowa Administrative Code pertaining to water pollution control and public water supplies. This module also covers the acquisition of right-of-way by a municipality and the function of municipal ordinances. (Author/RH)

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LEGAL

Training Module 4.315.3.77

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

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SUMMARY

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Module No:	Module Title: Legal
Approx. Time: 10½ hours	Submodule Title: 1. Federal & State Regulations 2. Right-of-Way Acquisition 3. Code Enforcement Topic:
Objectives: <ol style="list-style-type: none"> 1. The participant will be able to state the purpose of the Environmental Protection Agency and the Dept. of Env. Quality. 2. The participant will be able to apply the Federal Water Pollution Control Act & Amendments of 1972 (also known as 92-500) to the management of wastewater treatment plants. 3. The participant will be able to apply the Safe Drinking Water Act (also known as 92-523), to the management of water treatment/plants. 4. The participant will be able to state how a municipality may acquire rights-of-way and the restrictions on land owners. 5. The participant will be able to explain how municipal codes are enforced & will know the basic contents of a sewer ordinance. 	
Instructional Aids: Handouts Transparencies	
Instructional Approach: Lecture Discussion	
References: <ol style="list-style-type: none"> 1. <u>Water Law, Planning and Policy, Cases & Materials</u>, J. Sax, Bobbs-Merrill Co., Inc., Indianapolis, 1968. 2. <u>Pamphlets on Water</u>, "The Water Problem in Iowa," F. W. Schaller and B. G. Riley, 1957. 3. <u>Water Purity</u>, Earl Finbar Murphy, University of Wisconsin Press, Madison, 1961. 4. <u>Contemporary Developments in Water Law</u>, Ed. by Corwin Waggoner Johnson & Susan Hollingsworth Lewis, Center for Research in Water Resources, University of Texas at Austin, 1970. 5. <u>Environmental Rights & Remedies</u>, Victor J. Yannacone, Jr., Bernard S. Cohen & Steven G. Davison, Lawyers Cooperative Publishing Co., Rochester, N.Y., 1972. 6. <u>Water & Water Rights, A Treatise on the Law of Water & Allied Problems</u>, Ed. by Robert Emmet Clark, Allen Smith Co., Indianapolis, 1972. 	

7. Industrial Pollution Control Handbook, Ed. by Herbert F. Lund, McGraw-Hill Book Co., 1971.
8. "Regulation of Sewer Use," Committee on Sewage & Industrial Wastes Practice, Water Pollution Control Federation, 1968.
9. Sewer Ordinances from the Municipal Code of Estherville, Iowa.
10. Sewage & Sewage Works, "Drinking Water Quality Regulations: Measuring, Monitoring and Managing," Frank Reid, June, 1976.
11. "No Small Task," United States Environmental Protection Agency, U.S. Government Printing Office, Washington, D.C., 1976.
12. Federalism and Clean Waters, Harvey Lieber, Lexington Books, D.C. Heath & Co., Lexington, Mass., 1975.
13. Copy of National Pollutant Discharge Elimination System Permit for the City of Estherville, Iowa.
14. "About the Safe Drinking Water Act," U.S. Environmental Protection Agency, Baltimore, 1976.
15. United States Code Ennotated.
16. Code of Iowa, 1977.
17. Iowa Administrative Code..
18. "Is Your Drinking Water Safe?", EPA, March, 1977.



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EPA has published several pamphlets which may be valuable to the participants. For this module, see:

"No Small Task"

"About the Safe Drinking Water Act"

"Is Your Drinking Water Safe?"

These and more recent pamphlets should be available at no or minimal cost.

Module No:	Module Title: Legal
Approx. Time: ½ hour	Submodule Title: Federal & State Regulations
Objectives: 1. The participant will be able to list and explain the three functions of administrative agencies. 2. The participant will be able to tell generally how an agency makes a rule, and explain an individual's right to participate in rule-making. 3. The participant will be able to briefly explain the purpose, roles and administration of the Environmental Protection Agency and the Department of Environmental Quality.	Topic: Administrative Agencies
	Instructional Aids: Transparency LT-1
Instructional Approach: Lecture Discussion	References: 1. United States Code Annotated 2. Code of Iowa, 1977. 3. Iowa Administrative Code
Class Assignments:	

Module No:	Topic: Administrative Agencies	
Instructor Notes:		Instructor Outline:
<p>If there is a member of the DEQ in the community, he or she would probably be happy to speak on how the DEQ works and how it affects operators. It might be advantageous to have the DEQ representative come at a later session when the Federal Water Pollution Control Act and Amendments and the Federal Safe Drinking Water Act are discussed.</p> <p>Transparency LT-1</p> <p>Emphasize the DEQ since the participant will be working more closely with it than the EPA.</p>	<ol style="list-style-type: none"> 1. Discuss agencies generally. The basic rules will also apply to the EPA and DEQ. Legislative function--agency makes policies. Executive function--agency can enforce the law and its rules by prosecuting violators. Judicial function--agency holds hearings on violations of rules. 2. Discuss briefly how an agency such as the EPA and DEQ makes a rule. <ol style="list-style-type: none"> a. A federally proposed rule is published in the Federal Register. A state proposed rule is published in the Iowa Administrative Code. b. A person interested in or opposed to the rule will receive notice of the rule and hearing on the rule and an opportunity to be heard at the hearing. c. Rule becomes effective. 3. Discuss generally the administration of the EPA & DEQ. Include the purpose of the agencies and some of the functions of the officials. 	

Module No:	Module Title: Legal
Approx. Time:	Submodule Title: Federal & State Regulations
	Topic: Federal Water Pollution Control Act Amendments of 1972
Objectives: <ol style="list-style-type: none"> 1. In reference to the effluent standards approach of the Amendments, the participant will be able to: <ol style="list-style-type: none"> a. State the significance of the approach. b. State the 1977, 1983, and 1985 goals. c. Explain how the regulations relating to the standards are developed. 2. The participant will be able to compare the state's role under the state pollution act. 3. In reference to the National Permit Discharge Elimination System, participant will be able to: <ol style="list-style-type: none"> a. Apply for a permit. b. Interpret a permit received by a wastewater treatment plant. c. Describe the relationship between the Federal & State permits. d. Explain the penalties for violation of a permit. 	
<ol style="list-style-type: none"> 4. Upon completion of this module, the participant will be able to describe the ways the Federal & State governments may enforce the Amendments. 5. The participant will be able to state briefly the financial incentives to the states for cooperation with the Amendments 	
Instructional Aids: Handouts LH-1 and LH-2.	
References: <ol style="list-style-type: none"> 1. "No Small Task" 2. <u>Federalism & Clean Waters</u> 3. <u>Waters & Water Rights</u> 4. <u>Environmental Rights & Remedies</u> 5. <u>National Pollutant Discharge Elimination System permit for the City of Estherville, Iowa.</u> 	
Class Assignments: Read handouts LH-1 and LH-2.	
Instructional Approach: Lecture Discussion	

Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: Effluent Standards Approach
<p>Handout LH-1</p> <p>Make sure each participant understands effluent standards as they are the basis of the amendments.</p> <p>Since July 1, 1977, this goal has been strictly enforced.</p> <p>Congress is considering relaxing the 1983 and 1985 deadlines.</p>		<ol style="list-style-type: none"> 1. Discuss the significance of the effluent standards approach: An effluent limitation is a restriction on the amount of a pollutant that may be released from a point source into a body of water. Before this amendment, the standards were based on water quality standards which were difficult to administer and enforce. 2. Discuss the goals of the approach: <ol style="list-style-type: none"> a. July 1, 1977--establish effluent limitations for point sources requiring the "best practical control technology currently available." b. July 1, 1983--This goal is to provide for protection and propagation of fish, shellfish and wildlife, and to provide for recreation in and on the water. Wastewater treatment plants must adhere to effluent limitation for point sources at the "best available technology economically achievable." The technology will be based on the best control and treatment measures that have been developed or are capable of being developed. The technology need not be in actual use but must be available at reasonable

Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: Effluent Standards Approach (con't.)
See "No Small Task" for more on development of regulations.		<p>cost and must have been adequately tested.</p> <p>c. For new sources built after the Amendments, must use treatment at the "best available demonstrated controlled technology, processes, operating methods or other alternatives including, where practicable, a standard permitting no discharge of pollutants."</p> <p>d. 1985 goal--No discharge of pollutants into navigable waters and prohibition of toxic pollutants in toxic amounts.</p> <p>3. Discuss development of regulations:</p> <p>a. Some of the technological factors considered are: cost of pollution control, age of facilities, manufacturing processes employed, environmental impact of pollution controls and energy.</p> <p>b. Special guidelines have been developed for each of more than 500 subcategories of industries.</p> <p>c. Data used to develop standards found in "Development Document for Effluent Limitations Guidelines and New Source Performance Standards" and "Economic Impact Analysis of Effluent Guidelines."</p>

Module No:	Topic; Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: State's Role)
<p>See Iowa Administrative Code for any changes in law.</p> <p>See IAC for list of high quality waters.</p>	<p>Discuss the Iowa Water Quality Standards and compare to federal act. Include the following:</p> <ol style="list-style-type: none"> 1. Iowa has an antidegradation policy which means that certain existing high quality waters shall be protected and maintained. 2. A mixing zone is where the effluents are diffused in the receiving water. The water quality standards are applied after mixing zone. Discuss mixing zone requirements. 3. The state has divided all surface waters into classes "A", "B" and "C" waters and has set criteria for each class. <ol style="list-style-type: none"> a. Class A waters are protected for primary contact water use. b. Class B waters are protected for wildlife, fish, aquatic and semiaquatic life and secondary contact water uses. c. Class C waters are protected as a raw water source of potable water supply. <p>See criteria applicable to each. Note that most maximum contaminant levels are the same as in the federal act.</p>	

Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: State's Role (con't.)
	4. State requires the following: a. Permit to construct water treatment plant and water mains. b. Approval of site of each proposed raw water source. c. Submission of records of operation.	

Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: National Permit Discharge Elimination System
		<ol style="list-style-type: none"> 1. Discuss the permit system, Include the following: <ol style="list-style-type: none"> a. Each point discharger must obtain a permit before a discharge can be made. The permits are based on effluent limitations. b. When a discharger receives a permit, it will include certain requirements and specific dates by which to fulfill the requirements to reduce pollutants. c. Each state must also administer a permit program using national standards. There is state as well as federal enforcement of these permits. The national standards should keep industry from threatening to leave a city because of strict permit limitations. The Iowa permit is almost identical to the federal permit. d. EPA has authority to review, and approve or veto each individual permit application. EPA usually approves large groups of permits together, but can review individually. This federal threat will probably force the states to keep their permit program. e. Permit holders must send in self-monitoring data on a regular basis. f. The Federal permit system requires the permit holder



Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972	
Instructor Notes:		Instructor Outline: Subtopic: National Permit Discharge Elimination System (con't.)
<p>Handout LH-2 This is the permit for an Iowa city, population 8000. While there will be variations in permits, most will be basically the same.</p> <p>Part I, A.1. of LH-2 and Discharge Monitoring Report.</p> <p>Part I, A, 4 of LH-2</p> <p>Part I, A, 4 & B of LH-2 Part I, C.</p> <p>Part II.</p>		<p>to maintain the treatment plant in good working order and operate at maximum efficiency. This system has pushed states into a mandatory certification law for waste treatment operators, if none existed before.</p> <ol style="list-style-type: none"> 2. Discuss how to apply for a permit. 3. Discuss how to read a permit and how to comply with it. Emphasize that after a plant receives a permit, that permit cannot be ignored. The operator must strictly comply with the provisions of the permit. <ol style="list-style-type: none"> a. Discuss the specific effluent limitations and minimum monitoring requirements. Monitoring is the only way to know if permits are being followed. b. Discuss the semi-annual reports which summarize the progress of all known major contributing industries. c. Discuss annual monitoring reports. d. Discuss the schedule of compliance. e. Discuss more generally the management requirements.

Module No:	Topic: Federal Water Pollution Control Act Amendments of 1972
Instructor Notes:	Instructor Outline: Subtopic: National Permit Discharge Elimination System (con't.)
<p>See Inspection topics in OSHA module on EPA's right to inspect a plant and the plant operator's corresponding rights and duties.</p>	<p>4. Discuss the penalties for violation of permit.</p> <ul style="list-style-type: none">a. Penalties for civil violations can be up to \$10,000 per day. Willful or negligent violations can be penalized up to \$25,000 per day and one year in prison for the first offense, and up to \$50,000 per day and two years in prison for other offenses.b. The EPA has the right to enter a plant, inspect the monitoring system and copy records to determine if a permit has been violated.

Module No:	Topic: Federal Water Pollution Control Act Amendments, of 1972
Instructor Notes:	Instructor Outline: Subtopic: Enforcement and Financial Incentives.
<p>Check current law to see what other grants are given.</p>	<ol style="list-style-type: none"> 1. Discuss enforcement of the Amendments. <ol style="list-style-type: none"> a. See Subtopic: NPDES for means of enforcement of permits against individual plants. b. A state must properly issue permits to plants. If negligent in enforcing, the EPA administrator may notify state and violator. State must act within 30 days. If not, the administrator may issue an order requiring compliance and start a civil action against the violator. The states have the duty of primary enforcement. EPA probably will not act unless the states are not fulfilling their duties. But EPA does create a federal threat to states. 2. Discuss the financial incentives to cooperate with with the federal government which the states have. Include the following: <ol style="list-style-type: none"> a. About 50% of the funds for monitoring, planning and permits will come from grants from the federal government. If the money is not spent on these programs, it can be cut off. b. Grants for construction. c. Other.

Module No:	Module Title: Legal
Approx. Time: 3½ hours	Submodule Title: Federal & State Regulations Topic: Safe Drinking Water Act
<p>Objectives:</p> <ol style="list-style-type: none"> 1. Upon completion of this module, the participant will be able to state the purpose of primary regulations & explain the following: <ol style="list-style-type: none"> a. Maximum contaminate level. (MCL) for: <ol style="list-style-type: none"> 1) Organic chemicals 2) Inorganic chemicals 3) Turbidity 4) Coliform b. The action to be taken if the MCL is exceeded for each of the above. 2. The participant will be able to state the purpose of secondary regulations. 3. The participant will be able to explain the monitoring, water sampling and testing requirements for community and non-community public water supplies. 4. The participant will be able to define variances and exemptions under the Act. 5. The participant will be able to state the means the Iowa and Federal governments may use to enforce the Act. 	
<p>Instructional Aids: Handouts LH-3 - LH-6.</p>	
<p>Instructional Approach: Lecture Discussion</p>	
<p>References:</p> <ol style="list-style-type: none"> 1. "About the Safe Drinking Water Act" 2. "Drinking Water Quality Regulations: Measuring, Monitoring and Managing" 3. "Is Your Drinking Water Safe?" 	
<p>Class Assignments: Read handouts LH-3, LH-4, LH-5 and LH-6.</p>	

Module No:	Topic: Federal Safe Drinking Water Act	
Instructor Notes:	Instructor Outline: Subtopic: Regulations	
Handout LH-3	<ol style="list-style-type: none"> 1. Discuss primary regulations Include the following: <ol style="list-style-type: none"> a. Called "The National Interim Primary Drinking Water Regulations." Called interim because of continuing research on drinking water contaminants. b. Regulations made by the National Drinking Water Council and HEW. Iowa has comparable regulations c. Primary regulations are based on the standards of maximum contaminant levels See MCL subtopic. 2. Discuss secondary regulations. Include the following: <ol style="list-style-type: none"> a. Secondary regulations are guidelines governing the taste, color, odor and appearance of water. The purpose of these regulations is to protect the public welfare. 3. Discuss to whom the law applies. <ol style="list-style-type: none"> a. To every community water supply serving 15 or more connections or 25 people. 	

Module No:	Topic: Federal Safe Drinking Water Act																										
Instructor Notes:	Instructor Outline: Subtopic: Maximum contaminant level																										
Handout LH-3	<ol style="list-style-type: none"> 1. Discuss what maximum contaminant levels are. Highest permissible level of a contaminant. The contaminant is measured at the top of the water, except for turbidity which is measured at the point of entry into the distribution system. 2. Discuss specific MCL. Include: <ol style="list-style-type: none"> a. Inorganic chemicals <table data-bbox="766 957 1244 1276"> <tr><td>Arsenic</td><td>.05 mg/l</td></tr> <tr><td>Barium</td><td>1.0</td></tr> <tr><td>Cadmium</td><td>.010</td></tr> <tr><td>Chromium</td><td>.05</td></tr> <tr><td>Lead</td><td>.05</td></tr> <tr><td>Mercury</td><td>.002</td></tr> <tr><td>Selenium</td><td>.01</td></tr> <tr><td>Silver</td><td>.05</td></tr> <tr><td>Nitrate</td><td>10.0</td></tr> </table> b. Organic chemicals <table data-bbox="766 1298 1181 1468"> <tr><td>Endrin</td><td>.0002</td></tr> <tr><td>Lindane</td><td>.0044</td></tr> <tr><td>Methoxchlor</td><td>.1</td></tr> <tr><td>Toxaphene</td><td>.005</td></tr> </table> c. Turbidity 1 Turbidity Unit (TU) monthly average and 5 TU average of 2 consecutive days. d. Micro-biological contaminants--coliform <ol style="list-style-type: none"> 1) For membrane filter analysis, coliform shall not exceed: 1 per 100 ml in more than one sample if less than 20 samples collected per month, or 4 per 100 ml in 	Arsenic	.05 mg/l	Barium	1.0	Cadmium	.010	Chromium	.05	Lead	.05	Mercury	.002	Selenium	.01	Silver	.05	Nitrate	10.0	Endrin	.0002	Lindane	.0044	Methoxchlor	.1	Toxaphene	.005
Arsenic	.05 mg/l																										
Barium	1.0																										
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Chromium	.05																										
Lead	.05																										
Mercury	.002																										
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Silver	.05																										
Nitrate	10.0																										
Endrin	.0002																										
Lindane	.0044																										
Methoxchlor	.1																										
Toxaphene	.005																										

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Maximum Contaminant Levels (con't.)
	<p>more than one sample if less than 10 samples collected per month, or 4 per 100 ml in more than 5% of samples if 20 or more samples examined per month.</p> <p>2) For fermentation tube analysis, coliform shall not exceed: More than 60% of the portions per month; Not more than 1 sample may have all 5 portions positive when less than 5 samples are examined per month, or Not more than 20% of samples may have all 5 portions positive when 5 or more samples are examined per month.</p> <p>e. MCL for fluoride vary with the temperature.</p>

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Monitoring, Sampling & Testing Requirements
Handout LH-4	<ol style="list-style-type: none"> 1. Discuss the following locations where water is to be sampled and tested: <ol style="list-style-type: none"> a. Surface water source in a non-community public water supply. b. Surface water source in a community public water supply. c. Well water in a community public water supply. d. Well water in a non-community public water supply. 2. Discuss the basic monitoring requirements. Under the Act, starting June 24, 1977, all systems must monitor each of certain constituents on a prescribed frequency. The frequency will depend on the source of supply, and the size of the community. 3. Discuss the specific monitoring requirements under the Act. <ol style="list-style-type: none"> a. Inorganic chemicals. <ol style="list-style-type: none"> 1) Community systems--monitoring should be completed within 2 years of June, 1977, and at 3 year intervals thereafter for surface water and at one year intervals for ground water. 2) Non-community--same as community, except the analysis for nitrate shall be completed 2 years after June, 1977, and at intervals determined by the state thereafter.

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Monitoring, Sampling & Testing Requirements (con't.)
	<p>b. Organic chemicals</p> <ol style="list-style-type: none"> 1) Surface water--Analysis should be completed within 1 year of June, 1977, and made at 3 year intervals thereafter. 2) Ground water--Analysis specified by state. <p>c. Turbidity</p> <ol style="list-style-type: none"> 1) Surface water--Monitoring at rate of one sample per day in community systems. Must begin within 2 years of June, 1977 for non-community systems. 2) No requirement for ground water. <p>d. Micro-biological contaminants--Monitoring at regular time intervals.</p> <p>4. Discuss recordkeeping requirements. Include: Operator shall keep records of the monitoring of bacteria for not less than 5 years. Records of chemical analysis not less than 10 years. Records of action to correct violations not less than 3</p>

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: What To Do When the MCL are Exceeded
<p>Handout LH-5</p> <p>See Act and Iowa Administrative Code for proper way to notify the public of violations.</p>	<p>Discuss the action to be taken if the MCL is exceeded for each of the below groups. Include the sampling and notice requirements.</p> <ol style="list-style-type: none"> 1. Inorganic chemicals and organic chemicals. Report to state within 7 days and initiate 3 additional samples within one month. When the average of these samples exceeds MCL, must report to state within 48 hours and notify public. 2. Nitrate Make a second analysis in 48 hours. If average of these 2 samples still exceeds MCL, report to state in 48 hours and notify public. 3. Turbidity If MCL exceeds 1 TU, resample immediately, preferably within one hour. If this sample confirms violation, report to state in 48 hours. Using this repeat sample to calculate average, report to state in 48 hrs. and notify public if monthly average of 1 TU or 2-day average of 5 TU is exceeded. 4. Coliform Report to state within 48 hours and notify public. <ol style="list-style-type: none"> a. If membrane filter analysis used; if single sample

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: What To Do When the MCL are Exceeded (con't.)
	<p>exceeds 4 per 100 ml, initiate at least 2 consecutive daily check samples from same sampling point. Collect samples each day or as directed by state until at least 2 consecutive daily samples show less than 1 per 100 ml. If a sample confirms the presence of coliform, report to state in 48 hrs.</p> <p>b. If fermentation tube analyzed, if a single sample contains coliform in 3 or more 10 ml portions in all 5 of the 100ml portions, make check sampling as stated for membrane filter analysis. Continue until at least 2 consecutive daily samples show no positive tubes. If the presence of coliform is confirmed, report to state in 48 hours.</p> <p>c. When analysis is by DPD ferrous titrimetric and colorimetric, if residual is less than minimum, re-test within one hour. If deficient residual is confirmed, report to state in 48 hours and collect coliform bacterial samples within 1 hour. Report bacterial results to state in 48 hours. No notice to public is required because the residual is not a MCL.</p>



Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Variances & Exemptions
Handout LH-6	<p>Discuss variances and exemptions. Include the following:</p> <ol style="list-style-type: none"> 1. If a system is unable to meet the standards because of the poor quality of raw water coming into the system even though it is using reasonable treatment methods, then the supplier may ask for a variance. 2. State may grant a variance for MCL upon finding that <ol style="list-style-type: none"> 1) because of characteristics of raw water sources reasonably available to the system, it cannot meet the requirements respecting the MCL despite application of best technology, treatment techniques or other means, which are generally available, and 2) granting of the variance will not result in an unreasonable risk to health of persons served. 3. If a system is unable to meet the standards, usually because of the inability to afford the additional treatment, it may ask for an exemption up to January, 1981. This extension of time should allow the system to seek funds or develop another plant. The exemption may last as long as January 1983.

Module No:	Topic: Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Variances & Exemptions (con't.)
	<p>4. Requirements for exemption-Finding that 1) due to compelling factors (including economic factors) the system is unable to comply and 2) system was in operation on effective date of contaminant level or treatment and 3) no unreasonable risk to health.</p> <p>5. A public hearing must be held when a system applies for a variance or exemption so that those being served by the system may participate.</p> <p>6. State has option of granting variances and exemptions or not. The state must determine whether the variance or exemption would endanger the public health.</p>

Module No:	Topic; Federal Safe Drinking Water Act
Instructor Notes:	Instructor Outline: Subtopic: Enforcement
Handout LH-6	<ol style="list-style-type: none"> 1. Discuss enforcement of Act. <ol style="list-style-type: none"> a. State has primary enforcement responsibility. b. If Administrator finds a variance or exemption has been violated, Admin. will notify state and provide advice and technical assistance necessary for compliance. If no compliance within 30 days of notice, Administrator gives public notice and requests state to report in 15 days. c. Administrator may bring civil action to require compliance. d. If court determines there has been a willful violation, may be penalty up to \$5000 per day. e. Any person who willfully violates the public notice provisions of the act may be subject to a fine up to \$5000.

Module No:	Module Title: Legal
	Submodule Title:
Approx. Time: 1 hour	Topic: Right-of-Way Acquisition
	<p>Objectives: Upon completion of this module, the participant will be able to state the following:</p> <ol style="list-style-type: none"> What is an easement. What is condemnation and eminent domain. Two ways an easement for a water plant may be created. Rights of a water plant with easement. Duties of property owner who has granted easement. Right of a water plant by the city to condemn land. Rights of a property owner whose property is being condemned.
<p>Instructional Aids: Handout LH-7</p>	
<p>Instructional Approach: Lecture Discussion</p>	
<p>References: Code of Iowa, 1977.</p>	
<p>Class Assignments: Read Handout LH-7/</p>	

Module No:	Topic: Right-of-Way Acquisition	
Instructor Notes:	Instructor Outline:	
Handout LH-7	<ol style="list-style-type: none"> 1. Discuss easements. Include the following: <ol style="list-style-type: none"> a. Def.--An easement is a non-possessory interest in land which gives the owner of the easement the right to do something on the land, or require or prevent the owner of the land from doing something on it. b. How created: <ol style="list-style-type: none"> 1) By agreement--most usual method. Refer to city attorney, etc. to draw agreement. Must be recorded. 2) By prescription--Title to an easement may be claimed by prescription or adverse possession where there is use of the property which is open continuous, exclusive, adverse and notorious. Adverse possession becomes a legal question and will probably only be used where someone failed to obtain an easement by agreement. c. Easements are not cut-off by mere non-use. There must be an agreement or abandonment. d. Rights of owner of easement: <p>Owner has right to use property for specified purpose, eg. water lines. Can go on to property for purpose of working with easement. The easement owner does not have the right to take anything from the land</p> 	

Module No:	Topic: Right-of-Way Acquisition (con't.)	
Instructor Notes:	Instructor Outline:	
	<ul style="list-style-type: none"> • Easement owner does not have the exclusive right it use the land. e. Duties of landowners: <ul style="list-style-type: none"> Landowner can use land in any way (subject to zoning ordinances) but may not interfere with the easement owner's rights. For example, a landowner may use the surface of the property, but may not break open or otherwise interfere with water lines below the surface. Landowner must allow easement owner to come onto land for purpose of working with easement. f. The giving of an easement is a voluntary action. <p>2. Discuss Eminent Domain and Condemnation.</p> <ul style="list-style-type: none"> a. Def.--Eminent domain is the power by which the state, county or city may take private property for public use, without the consent of the owner. Condemnation is the process by which the government takes. The government must award and pay just compensation to the private owner. b. Rights and duties of condemnor: <ul style="list-style-type: none"> 1) Condemnor may take private land for any public purpose. Must conform strictly with the Code of Iowa. (See city attorney or other representative.) 	

Module No:	Topic: Right-of-Way Acquisition (con't.)
Instructor Notes:	Instructor Outline:
	<ul style="list-style-type: none">2) In order to make just compensation, the condemnor must have the property appraised at the fair market value. The condemnor may also have to pay displacement allowance.3) Condemnation action is before a district court. It usually is more expensive than obtaining an easement but may be the only means available.c. Rights of landowner.<ul style="list-style-type: none">Right to participate in the condemnation hearing.Right to appeal. Right to just compensation and sometimes displacement allowance. As long as the state proceeds properly in the condemnation proceeding and the taking is for a public purpose, a private property owner has a slim chance of keeping the property.d. The taking by condemnation is an involuntary proceeding.

Module No:	Module Title: Legal
Approx. Time: 2½ hours	Submodule Title: Code Enforcement
Objectives: Upon completion of this module the participant will be able to define ordinance and state where to find an ordinance in an Iowa city. The participant will be able to briefly state the process of making an ordinance.	Topic: Introduction to Ordinances
Instructional Aids:	
Instructional Approach: Lecture Discussion	
References: <u>Regulations of Sewer Use</u>	
Class Assignments:	

Module No:	Topic: Introduction to Ordinances
Instructor Notes:	Instructor Outline:
<p>Give class names of city code enforcer, plant operator or other person who has copy of city code.</p>	<ol style="list-style-type: none"> 1. Discuss the definition of an ordinance. 2. Discuss the purpose of a sewer ordinance. Include the effects of inadequate control, such as sewer clogging and pollution. 3. Discuss where the sewer ordinances may be found in your city. 4. Discuss how an ordinance is made in your city.

Module No:	Module Title: Legal
Approx. Time:	Submodule Title: Code Enforcement
	Topic: Content of Sewer Ordinance
<p>Objectives: ✓</p> <p>Upon completion of this module the participant will be able to briefly explain the following contents of an ordinance:</p> <ol style="list-style-type: none"> Introduction Definition of terms Regulations requiring the use of public sewers where available. Regulations concerning private sewage disposal where public sewers are not available. Regulations and procedures regarding building sewers and connections. Regulations relating to rate of discharge and character of water and wastes admissible to public sewers. Regulations relating to sampling and analysis. Special regulations. Provision for powers and authority for inspections. Enforcement (penalty) clause. 	
<p>Instructional Approach:</p> <p>Lecture Discussion</p>	
<p>Instructional Aids:</p> <p>Handout LH-8</p>	
<p>References:</p> <p><u>Regulations of Sewer Use</u> Municipal Code of Estherville, Iowa</p>	
<p>Class Assignments:</p> <p>Read handout LH-8.</p>	

Module No:	Topic: Content of a Sewer Ordinance
Instructor Notes:	Instructor Outline:
<p>LH-8 This handout contains the city sewer ordinances for the City of Estherville, Iowa.</p>	<p>Discuss the contents of a sewer ordinance. Include the following:</p> <ol style="list-style-type: none"> 1. Introduction Statement of purposes, jurisdiction and scope of the ordinance. Some cities just use the title of the ordinance instead of an introduction. 2. Definition of terms The definitions will clarify the intent of the legislators. 3. Regulations requiring the use of public sewers where available. It is in the public interest that all use the sewers so there are no insanitary wastewater disposal facilities. 4. Regulations concerning private sewage disposal where public sewers are not available. 5. Regulations and procedures regarding building sewers and connections. Especially note the permit requirement and the building specifications. 6. Regulations relating to rate of discharge and character of water and wastes admissible to public sewers or use of the public sewers

Module No:	Topic: Content of a Sewer Ordinance (con't.)
Instructor Notes:	Instructor Outline:
	<ol style="list-style-type: none">7. Regulations relating to sampling and analysis (see Use of the Public Sewers in LH-8).8. Special regulations--as needed.9. Provision for powers and authority for inspections.10. Penalties:

Module No:	Module Title: Legal
	Submodule Title: Code Enforcement
Approx. Time:	Topic: Enforcement
	Objectives: Upon completion of this module the participant will be able to explain how these ordinances may be enforced.
Instructional Aids:	
Instructional Approach: Lecture Discussion	
References: <u>Regulations of Sewer Use</u>	
Class Assignments:	

Module No:	Topic: Enforcement
Instructor Notes:	Instructor Outline:
	<p>Discuss how the ordinance may be enforced. See also Topic: Content of a Sewer Ordinance.</p> <p>The ordinance should give power to officials to inspect sewers, make tests and take samples. They should have the power to penalize for violations. The penalties usually range from \$1 to \$500, with a possible prison penalty in some instances. Each day of the violation may be a separate offense. The city attorney acts as prosecutor. The ordinance may state that the offender be given a period of time in which to comply with the ordinance.</p>

Exam Questions

LEGAL.

1. State the 1977, 1983 and 1985 goals of the Federal Water Pollution Control Amendments of 1972.
2. State and describe five items contained in a permit issued under the National Permit Discharge Elimination System.
3. Explain maximum contaminant levels under the Federal Safe Drinking Water Act.
4. State the actions to take when the MCL are exceeded for each of the following under the Federal Safe Drinking Water Act:
 - a. Inorganic chemicals.
 - b. Organic chemicals.
 - c. Nitrate.
 - d. Turbidity.
5. Define an easement and state the rights of an easement owner.
6. State how an ordinance is made and where it can be found.

EFFLUENT STANDARDS APPROACH

An effluent limitation is a restriction on the amount of a pollutant that may be released from a point source into a body

A point source is a confined conduit such as pipes, sewers, etc., from which pollutants are discharged.

The final goal of the Amendments through the effluent standards approach is to eliminate the discharge of pollutants into navigable waters by 1985. To attain this goal there are two interim goals.

By July 1, 1977, all waste water treatment plants must adhere to effluent limitations for point sources using the "best practical control technology currently available." This goal has been strictly enforced.

By July 1, 1983, the Amendment provides for protection and propagation of fish, shellfish and wildlife, and to provide for recreation in and on the water. To achieve this goal, the plants must adhere to effluent limitations for point sources at the "best available technology economically achievable."

For any new point sources built after this Amendment takes effect, the treatment must be at the "best available demonstrated controlled technology, processes, operating methods or other alternatives including, where practicable, a standard permitting no discharge of pollutants."

EPA has divided industries into more than 500 subcategories and will make guidelines and standards for each. When developing the regulations, EPA will consider some of the following technical factors:

- a. Cost of pollution control.
- b. Age of the industrial facilities.
- c. Manufacturing processes employed.
- d. Environmental impact of pollution controls.
- e. Energy.

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended. (33 U.S.C. 1151 et. seq; the "Act").

is authorized to discharge from a facility located at

to receiving waters named

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on September 14, 1975 unless an adjudicatory hearing is requested pursuant to 40 CFR 125.36 within 10 days following receipt of this permit.

This permit and the authorization to discharge shall expire at midnight, on January 1, 1977.

Signed this 15th day of August, 1975

Jerome H. Svore
Regional Administrator
U.S. Environmental Protection Agency
Region VII

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS / FINAL

1. During the period beginning on the effective date and lasting through January 1, 1977, permittee is authorized to discharge from outfall serial number 001.

Such discharges shall be limited and monitored by the permittee as specified:

Wastewater Parameter	Effluent Limitations				Minimum Monitoring Requirements		
	kg/day (lbs/day) Daily Avg	Max	Other Units (Specify) Daily Avg	Max	Measurement Frequency	Sample Type*	Sample Location**
Biochemical Oxygen Demand (5-day)	3660(8070)	5490(12100)	200 mg/l	300 mg/l	4/week	composite	1,2
Suspended Solids	3660(8070)	5490(12100)	200 mg/l	300 mg/l	4/week	composite	1,2
Flow - m ³ /day (MGD)	---	---	18300(4.840)	26500(7.00)	daily	---	2
pH	6.5-9.0	(not to be averaged)			4/week	grab	1,2
Ammonia Nitrogen (as N)	---	---	40 mg/l	60 mg/l	4/week	composite	1,2

There shall be no discharge of floating or settleable substances in other than trace amounts.

*All composite samples are 24 hr composites (9 samples at 3 hr intervals).

**Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): (1) raw influent into wastewater treatment facility, (2) final effluent from wastewater treatment facility.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. Pollutants from Industrial Users

Effluent limitations on pollutants from this municipal discharge are listed in Part I, Section A.1, Section A.2 and Section A.3 of this permit. It is possible that other pollutants attributable to inputs from major contributing industries using the municipal system are also present in the permittee's discharge. At such time as sufficient information becomes available to establish limitations for such pollutants, this permit may be revised to specify effluent limitations for any or all of such other pollutants in accordance with industrial best practicable technology requirements or water quality standards.

It may be necessary to supplement the limitations given in Part I, Section A.1, Section A.2 and Section A.3 with Federal Pretreatment Standards (40 CFR 128) to ensure compliance by the permittee with all applicable effluent limitations. (In 40 CFR 128, pretreatment of wastewater is required for incompatible pollutants.) In addition, no discharge to publicly owned treatment works shall contain wastes which create a fire or explosion hazard in the publicly owned treatment works, wastes which will cause corrosive structural damage, wastes with a pH lower than 5.0; wastes in amounts which would cause obstruction to the flow in sewers or interfere with the proper treatment operation, or wastewaters at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods resulting in a loss of treatment efficiency.

Specific actions by the permittee may be necessary so that all of the major contributing industries discharging to the municipal system comply with applicable pretreatment standards.

Beginning on January 1, 1976 the permittee shall submit to the permit issuing authority semi-annual reports summarizing the progress of all known major contributing industries subject to the requirements of Section 307 of the Act toward full compliance with such requirements. Such a report shall include at least the following information:

- (1) The number of major contributing industries using the treatment works, divided into SIC group categories;
- (2) The number of major contributing industries in full compliance with the requirements of Section 307, or not subject to these requirements (e.g., discharge only compatible pollutants);
- (3) A list identifying by name those major contributing industries presently in violation of the requirements of Section 307.

These semi-annual reports must be filed with the permitting authority by January 1 and July 1 of each year until compliance is achieved. Submission is required again only if a major contributing industry reverts to violating the requirements of Section 307.

Beginning on January 1, 1976 monitoring reports for each major contributing industry will be required on an annual basis.* The permittee shall establish and implement a procedure to obtain specific information on the quality and quantity of effluents introduced by each major contributing industry. This information shall be presented using the instructions and format as given in Section IV of Standard Form A (attached). A separate set of six questions should be completed for each major industrial user.

Information on the municipal facilities as a whole is to be reported on the monthly NPDES Discharge Monitoring Report Form (Form 3320-1).

Based on the information regarding industrial inputs reported by the permittee pursuant to the preceding paragraph, the permittee will be notified by the permitting authority of the availability of industrial effluent guidelines on which to calculate allowable inputs of incompatible pollutants based on best practicable technology for each industry group. Copies of guidelines will be provided as appropriate. Not later than 120 days following receipt of this information, the permittee shall submit to the permitting authority calculations reflecting allowable inputs from each major contributing industry. The permittee shall also require all such major contributing industries to implement necessary pretreatment requirements (as provided for in 40 CFR Part 128), and provide the permitting authority with notification of specific actions taken in this regard. At that time, the permit may be amended to reflect the municipal facility's effluent requirements for incompatible pollutants.

*The first industrial monitoring report is due January 1, 1976.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous months shall be summarized for each month and reported on a Discharge Monitoring Report Form (OMB No. 158-R0073), postmarked no later than the 28th day of the month following the completed reporting period. The first report shall be submitted for the period ending . Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

U. S. Environmental Protection Agency
Attn: Compliance Branch
1735 Baltimore, Room 249
Kansas City, Missouri 64108

Iowa Department of Environmental Quality
P.O. Box 3326
3920 Delaware
Des Moines, Iowa 50316

3. Other Reporting Conditions

Any unforeseen or anticipated modifications in influent characteristics or volume, waste collection systems, industrial contributions, treatment and disposal facilities, changes in operational procedures, elimination of discharge, industry relocation, or other significant activities which alter the nature and/or frequency of the discharge(s), or otherwise affect the conditions of this permit, shall be enumerated in a written report accompanying the earliest subsequent monitoring report. This report shall include information on the quantity and quality of the changes to the influent to the treatment facility and any impact of such change to the facility effluent.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (OMB No. 158-R0073). Such increased frequency shall also be indicated.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the State water Pollution control Agency.

8. Definitions

- a. The "daily average" discharge means the sum of the total daily discharges by weight, volume or concentration during the reporting period, divided by the total number of days during the reporting period when the facility was in operation. With respect to the monitoring requirements, the "daily average" discharge shall be determined by the summation of all the measured daily discharges by weight, volume or concentration divided by the number of days during the reporting period when the measurements were made.
- b. The "maximum" discharge means the total discharge by weight, volume or concentration which cannot be exceeded during any 24-hour period.
- c. The "weekly average", other than for fecal coliform bacteria is the arithmetic mean of the values for effluent samples collected in a period of seven consecutive days. The weekly average for fecal coliform bacteria is the geometric mean of the values for effluent samples collected in a period of seven consecutive days.
- d. A "grab sample" is an individual sample collected in less than 15 minutes. For fecal coliform bacteria, a grab sample consists of one effluent portion collected during a 24-hour period.
- e. A "composite sample" is a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling frequency (for constant volume samples) is proportional to the flow rates over a time period used to produce the composite.
- f. A "major contributing industry" is a wastewater source that:
 - (a) has a flow of 50,000 gallons or more per average workday;
 - (b) has a flow greater than five percent of the flow carried by the municipal system receiving the waste;
 - (c) has in its waste a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Act; or
 - (d) has significant impact, either singly or in combination with other contributing industries on the treatment works or the quality of its effluent.
- g. "Compatible pollutants" are biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, plus additional pollutants identified in the NPDES permit if the publicly owned treatment
- h. An "incompatible pollutant" is any pollutant which is not a compatible pollutant as defined above.

C. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

The permittee shall submit 180-day progress reports to the Compliance Branch, U.S. Environmental Protection Agency stating the progress being made toward compliance with the D.E.Q. implementation schedule specified within Part I, C-3. The first such report shall be submitted on or before May 1, 1976.

The above schedule contains the latest possible dates to accomplish the actions specified. Earlier compliance is encouraged.

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress, or in the case of specified actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. The above submittals shall be sent to E.P.A.

C. SCHEDULE OF COMPLIANCE (cont'd)

3. The permittee shall achieve compliance with the effluent limitations, monitoring requirements and other stipulations in accordance with the following D.E.Q. implementation schedule:

When used below, "required facilities" means those facilities provided by the permittee which will achieve compliance with the following limitations:

Wastewater Parameter	Daily Avg	Max.
Biochemical Oxygen Demand (5-day)	10 mg/l	15 mg/l
Suspended Solids	20 mg/l	30 mg/l
Fecal Coliform Organisms	200/100 ml	400/100 ml
Ammonia Nitrogen (as N)	2 mg/l	5 mg/l

- (a) By January 1, 1977, the permittee shall complete construction of the required facilities, and by said date, shall submit to the Iowa Department of Environmental Quality (D.E.Q.) certification by a registered professional engineer that the construction thereof has been completed in accordance with the application, plans, specifications and permit therefor.
- (b) the permittee shall submit to the Iowa D.E.Q. 180-day progress reports stating the progress being made toward completion of the required facilities. The first such report shall be submitted on or before November 30, 1975.

PART II

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansion, additions, or modifications, as well as any new industrial discharge or substantial change in an existing industrial discharge to the treatment system, which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Regional Administrator and the State water pollution control agency of such changes. Following such notice, the permit may be modified to reflect any necessary changes in permit conditions or to specify and limit any pollutants not previously limited. In no case are any new connections, increased flows or major changes in influent quality permitted that will cause violation of the stated effluent limitations.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit due to an unusual or extraordinary occurrence, the permittee shall immediately notify and provide the Regional Administrator and the State with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Onshore-offshore construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Regional Administrator and the State in writing of each such diversion or bypass.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if no date for implementation appears in Part I,

- b. Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of one or more of the primary sources of power to the wastewater control facilities.

8. Facility Operation and Quality Control

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance and testing functions required to insure compliance with the conditions of this permit.
- c. Maintenance of treatment facilities that results in degradation of effluent quality shall be scheduled during non-critical water quality periods and shall be carried out in a manner approved by the permitting authority.

9. Discharge Consistency

The permittee shall maintain and operate the facilities under his control with sufficient personnel, standby equipment, adequate power, an inventory of replacement parts, and a satisfactory contingency plan to assure that the quality of the discharge(s) will meet the effluent limitation requirements.

10. Industrial Users

The permittee shall require any industrial user of the treatment works to comply with the requirements of Sections 204(b), 307, and 308 of the Act. Any industrial user subject to the requirements of Section 307 of the Act shall be required by the permittee to prepare and transmit to the Regional Administrator periodic notice (over intervals not to exceed nine (9) months) of progress toward full compliance with Section 307 requirements.

The permittee shall require any industrial user of storm sewers to comply with the requirement of Section 308 and the Act.

B. RESPONSIBILITIES**1. Right of Entry**

The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:-

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable time to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violations of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as accidents, equipment breakdowns, or labor disputes.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasions of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Prohibition of Additional Service Connections

Should there be a violation of any conditions of this permit, the Environmental Protection Agency has the authority under Section 402(h) of the Federal Water Pollution Control Act Amendments of 1972 to proceed in a court of competent jurisdiction to restrict or prohibit further service connections to the treatment system covered by this permit by any sources not utilizing the system prior to the finding that such a violation occurred. It is intended that this provision be implemented by the Agency (or by the State of Iowa) as appropriate.

PART III

OTHER REQUIREMENTS

1. Outfall description(s):

Outfall Serial Number

Description

001

Outfall from trickling filter treatment plant.

INSTRUCTIONS

1. Provide dates for period covered by this report in spaces marked "REPORTING PERIOD"
2. Enter reported minimum, average and maximum values under "QUANTITY" and "CONCENTRATION" in the units specified for each parameter as appropriate. Do not enter values in boxes containing asterisks. "AVERAGE" is average computed over actual time discharge is operating. "MAXIMUM" and "MINIMUM" are extreme values observed during the reporting period.
3. Specify the number of analyzed samples that exceed the maximum (and, or minimum) as appropriate permit conditions in the columns labeled "No. Ex." If none, enter "0".
4. Specify frequency of analysis for each parameter as No. analyses/No. days (e.g. "3/7" is equivalent to 3 analyses performed every 7 days). If continuous enter "CONT."
5. Specify sample type ("grab" or "hr. composite") as applicable. If frequency was continuous, enter "NA".
6. Appropriate signature is required on bottom of this form.
7. Remove carbon and retain copy for your records.
8. Fold along dotted lines, staple and mail Original to office specified in permit.

14-101 PERMIT NUMBER

117-101 DIS

SIC

LATITUDE

LONGITUDE

130-211 132-210 134-210 REPORTING PERIOD FROM

130-271 132-271 130-311 TO

YEAR MO DAY

PARAMETER	REPORTED	QUANTITY				CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MINIMUM	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
FLOW	PERMIT CONDITION	*****			MGD	*****	*****	*****		
PH	PERMIT CONDITION		*****		STANDARD UNITS	*****	*****	*****		
BOD 5	PERMIT CONDITION	*****			KG/DAY	*****			MG/L	
PERCENT REMOVAL BOD 5	PERMIT CONDITION			*****	%	*****	*****	*****		*****
SUSPENDED SOLIDS	PERMIT CONDITION	*****			KG/DAY	*****			MG/L	
PERCENT REMOVAL SUSPENDED SOLIDS	PERMIT CONDITION			*****	%	*****	*****	*****		*****
FECAL COLIFORM	PERMIT CONDITION	*****	*****	*****		*****			CF/100ML	GRAB

NAME OF PRINCIPAL EXECUTIVE OFFICER

TITLE OF THE OFFICER

DATE

LAST FIRST MI

TITLE

YEAR MO DAY

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

FEDERAL SAFE DRINKING WATER ACT

The Safe Drinking Water Act was passed in 1974 to protect our every day drinking water from various pollutants and chemicals. To achieve safe drinking water the federal and state governments have passed extensive laws which specify the quality of water. These acts have set the maximum levies for certain contaminants and enforce these levels through strict monitoring, sampling and testing requirements.

PRIMARY AND SECONDARY REGULATIONS

Maximum Contaminant Levels (MCL)

Inorganic Chemicals

Arsenic	.05 mg/1
Barium	1.
Cadmium	.010
Chromium	.05
Lead	.05
Mercury	.002
Selenium	.01
Silver	.05
Nitrate	10.

Organic Chemicals

Endrin	.0002
Lindane	.0044
Methoxchlor	.1
Toxaphene	.005

Turbidity

1 TU monthly average and 5 TU average of 2 consecutive days.

Micro-biological/coliform

a. For membrane filter analysis, coliform shall not exceed:

- 1) 1 per 100 ml in more than one sample if less than 20 samples collected per month,
- 2) 4 per 100 ml in more than one sample if less than 10 samples examined per month,

or

- 3) 4 per 100 ml in more than 5% of sample in 20 or more samples examined per month.

b. For fermentation tube analysis, coliform shall not exceed:

- 1) More than 60% of the portions per month;
- 2) More than 1 sample may have all 5 portions positive when less than 5 samples are examined per month; or
- 3) Not more than 20% of samples may have all 5 portions positive when 5 or more samples are examined per month.

MONITORING REQUIREMENTS

Water suppliers must regularly make tests and samples and report the results to the state and federal governments so that compliance with the Act can be assured. The frequency at which the tests are to be made varies with the size of the community, source of water supply, and type of pollutant.

Specific monitoring requirements under the Act are:

a. Inorganic chemicals

- 1) Community systems--monitoring should be completed within 2 years of June, 1977, and at three year intervals thereafter for surface water and at one year intervals for ground water.
- 2) Non-community systems--same as community, except that the analysis for nitrate must be completed 2 years after June, 1977, and at intervals thereafter as determined by the state.

b. Organic chemicals

- 1) Surface water--Analysis should be completed within 1 year after June, 1977, and be made again at three year intervals thereafter.
- 2) Groundwater--Analysis specified by state.

c. Turbidity

- 1) Surface water
 - a) Community systems--one sample per day.
 - b) Non-community systems--must begin within two years of June, 1977.
- 2) Groundwater--no requirement.

d. Micro-biological contaminants

Monitoring is done at regular time intervals as determined by state.

Recordkeeping requirements.

WHAT TO DO WHEN MAXIMUM CONTAMINANT LEVELS ARE EXCEEDED

When a MCL is exceeded, the supplier must act immediately according to the Act. Generally, a supplier must retake a sample to be sure the MCL has been exceeded. If the MCL has been exceeded, the supplier must then notify the public so the people being served by a system may take any necessary precautions.

The following are the specific actions to take:

1. Inorganic chemicals and organic chemicals--Report to state within 7 days and initiate 3 additional samples within one month. When the average of these samples exceeds the MCL, the supplier must report to state within 48 hours and notify the public.
2. Nitrate--Make a second analysis in 48 hours. If average of these two samples still exceeds the MCL, report to state in 48 hours and notify the public.
3. Turbidity--If the MCL exceeds 1 TU, resample immediately, preferably within one hour. If this sample confirms violation, report to state in 48 hours. Using this second sample to calculate the average, report to state in 48 hours and notify the public if the monthly average of 1 TU or 2-day average of 5 TU is exceeded.
4. Coliform--
 - a. If membrane filter analysis is used, and if single sample exceeds 4 per 100 ml initiate, at least 2 consecutive daily check samples from the same sampling point. Collect samples each day or as directed by the state until at least 2 consecutive daily samples show less than 1 per 100 ml. If a sample confirms the presence of coliform, report to state in 48 hours.
 - b. If a fermentation tube analysis is used, and if a single sample contains coliform in 3 or more 10 ml portions in all 5 of the 100 ml portions, make a check sampling as stated in 4a above. Continue until at least 2 consecutive daily samples show no positive tubes. If the presence of coliform is confirmed, report to state in 48 hours.

Public notice must be given properly whenever a violation occurs.

VARIANCES AND EXEMPTIONS

If a water system is unable to meet the standards because of the poor quality of raw water coming into the system even though it is using reasonable treatment methods, the supplier may ask for a variance from the standard.

If a system is unable to meet the standards, usually because of the inability to afford the additional treatment, the supplier may ask for an exemption. The request can be made until January, 1981.

The state has the option of granting the variance or exemption, but it must always consider whether the grant would result in an unreasonable risk to the health of the persons being served.

THE ROLE OF THE STATE OF IOWA UNDER THE ACT

The Iowa Water Quality Standards have been approved by the federal government. The standards are much the same as contained in the federal act. Also having the goal of protection of waters, the state has classified all of the Iowa waters and has set up certain criteria for each class.

ENFORCEMENT OF THE ACT

The state has the primary enforcement responsibility. If the federal government discovers there has been a violation of a standard, it will notify the state and help to attain compliance. If there is no compliance, there is a possible penalty of up to \$5000 per day.

EASEMENTS AND EMINENT DOMAIN

Definition of easement--An interest in land, but not the ownership of the land itself, which gives the owner of the easement the right to do something on the land, or require or prevent the landowner from doing something on it.

For example, Jack owns a piece of property in Des Moines. The City of Des Moines may have an easement for a water line to run underground on Jack's property. The City does not own Jack's property but may use the property to install, maintain and remove water lines.

An easement may be created by agreement or by prescription. Make sure an agreement is drawn for each easement. Do not rely on easements by prescription.

The owner of an easement has the right to use the property for purposes connected with the easement. The City of Des Moines in our example above can not only distribute water through the water lines under Jack's property, but may also come onto Jack's property for the purpose of installation, maintenance and removal of the water lines.

The landowner, Jack, in this example, can use the land in any way as long as there is no interference with the rights of the easement owner. Jack can build a swimming pool in his back yard but may not dig into any water line below.

In most cases, all parties will benefit from having an easement rather than going through condemnation proceedings.

Definition of eminent domain--Power of government by which it can take private property for public use, without the consent of landowner. Condemnation is the proceeding the government uses to take the property.

To continue the example, if Jack refused to give the City of Des Moines an easement under his land, the City would take the property by its power of eminent domain.

When the government takes property, it must also pay "just compensation." The landowner then becomes the seller in a forced sale. The government must have the property appraised to determine what is "just compensation."

The condemnation proceeding is held before the district court. It usually takes more time and money than obtaining an easement.

CITY OF ESTHERVILLE, IOWA

CHAPTER 5

SEWER REGULATIONS

SECTION:

- 4-5-1: Definitions
- 4-5-2: Use of Public Sewers Required
- 4-5-3: Private Sewage Disposal
- 4-5-4: Building Sewers and Connections
- 4-5-5: Use of the Public Sewers
- 4-5-6: Protection From Damage
- 4-5-7: Powers and Authority of Inspectors
- 4-5-8: Penalties
- 4-5-9: Compliance

4-5-1: DEFINITIONS: Unless the context specifically indicates otherwise, the meaning of terms used in this Ordinance shall be as follows:

- a. BOD: "BOD" (denoting Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty degrees (20.) C.; expressed in milligrams per liter.
- b. BUILDING DRAIN: "Building drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five feet (5') outside the inner face of the building wall.
- c. BUILDING SEWER: "Building sewer" shall mean the extension from the building drain to the public sewer or other place of disposal.
- d. COMBINED SEWER: "Combined sewer" shall mean a sewer receiving both surface runoff and sewage.
- e. GARBAGE: "Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage and sale of produce.
- f. INDUSTRIAL WASTES: "Industrial wastes" shall mean both liquid and solid wastes from industrial manufacturing processes, trade or business as distinct from sanitary sewage.

- g. **NATURAL OUTLET:** "Natural outlet" shall mean any outlet into a water-course, pond, ditch, lake or other body of surface or ground water.
- h. **PERSON:** "Person" shall mean any individual, firm company, association, society, corporation or group.
- i. **pH:** "pH" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.
- j. **PROPERLY SHREDDED GARBAGE:** "Properly shredded garbage" shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch ($\frac{1}{2}$ ") in any dimension.
- k. **PUBLIC SEWER:** "Public sewer" shall mean a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.
- l. **SANITARY SEWER:** "Sanitary sewer" shall mean a sewer which carries sewage and to which storm, surface, and ground waters are not intentionally admitted.
- m. **SEWAGE:** "Sewage" shall mean a combination of the water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such ground, surface and storm waters as may be present.
- n. **SEWAGE TREATMENT PLANT:** "Sewage Treatment Plant" shall mean any arrangement of devices and structures used for treating sewage.
- o. **SEWAGE WORKS:** "Sewage works" shall mean all facilities for collecting, pumping, treating and disposing of sewage.
- p. **SEWER:** "Sewer" shall mean a pipe or conduit for carrying sewage.
- q. **SHALL:** "Shall" is mandatory, "may" is permissive.
- r. **SLUG:** "Slug" shall mean any discharge of water, sewage or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty four (24) hour concentration of flows during normal operation.
- s. **STORM DRAIN:** "Storm drain" (sometimes termed "storm sewer") shall mean a sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water.
- t. **MANAGER:** "Manager" shall mean the City Manager of the City or his authorized deputy, agent or representative. Today the law has been changed and Estherville no longer uses the City Manager form of government but uses the Mayor system.

- u. **SUSPENDED SOLIDS:** "Suspended solids" shall mean solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering.
- v. **WATERCOURSE:** "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.
- (x, y, z). Amended by ordinance 338.

4-5-2

USE OF PUBLIC SEWERS-REQUIRED:

- (A) It shall be unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the City, or in any area under the jurisdiction of the City, any human or animal excrement, garbage or other objectionable waste.
- (B) It shall be unlawful to discharge to any natural outlet within the City, or in any area under the jurisdiction of the City, any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this Ordinance.
- (C) Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage.
- (D) The owner of all houses, buildings or properties used for human occupancy, employment, recreation or other purposes, situated within the City and abutting on any street, alley or right of way in which there is now located or may in the future be located a public sanitary or combined sewer of the City, is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this Ordinance, within ninety (90) days after date of official notice to do so, provided that said public sewer is within one hundred feet (100') of the property line.

4-5-3:

PRIVATE SEWAGE DISPOSAL:

- (A) Where a public sanitary or combined sewer is not available under the provisions of Section 4-5-2 (D), the building sewer shall be connected to a private sewage disposal system complying with the provisions of this Article.
- (B) Before commencement of construction of a private sewage disposal system the owner shall first obtain a written permit signed by the Manager. The application for such permit shall be made on a form furnished by the City, which the applicant shall supplement by any plans, specifications and other information as are deemed necessary by the Manager. A permit and inspection fee of five dollars (\$5.00) shall be paid to the City at the time the application is filed.

- (C) A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the Manager. He shall be allowed to inspect the work at any stage of construction and, in any event, the applicant for the permit shall notify the Manager when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within twenty four (24) hours of the receipt of notice by the Manager.
- (D) The type, capacities, location and layout of a private sewage disposal system shall comply with all recommendations of the Department of Public Health of the State of Iowa. No septic tank or cesspool shall be permitted to discharge to any natural outlet.
- (E) At such time as a public sewer becomes available to a property served by a private sewage disposal system, as provided in Section 4-5-3 (D), a direct connection shall be made to the public sewer in compliance with this Ordinance, and any septic tanks, cesspools and similar private sewage disposal facilities shall be abandoned and filled with suitable material.
- (F) The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, at no expense to the City.
- (G) No statement contained in this Article shall be construed to interfere with any additional requirements that may be imposed by the Health Officer.
- (H) When a public sewer becomes available, the building sewer shall be connected to said sewer within sixty (60) days and the private sewage disposal system shall be cleaned of sludge and filled with clean bank-run gravel or dirt.

4-5-4:

BUILDING SEWERS AND CONNECTIONS:

- (A) No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Manager.
- (B) There shall be two (2) classes of building permits: (a) For residential and commercial service, and (b) for service to establishments producing industrial wastes. In either case, the owner or his agent shall make application on a special form furnished by the City. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgement of the Manager. A permit and inspection fee of five dollars (\$5.00) for a residential or commercial building sewer permit and twenty five dollars (\$25.00) for an industrial building sewer permit shall be paid to the City at the time the application is filed.

- (C) All costs and expense incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.
- (D) A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard or driveway, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer.
- (E) Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Manager, to meet all requirements of this Ordinance.
- (F) The size, slope, alignment, materials of construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing, testing and backfilling the trench, shall all conform to the requirements of the Building and Plumbing Code or other applicable rules and regulations of the City. In the absence of Code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications of the A.S.T.M. & W.P.C.F. Manual of Practice No. 9 shall apply.
- (G) Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building sewer.
- (H) No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, or other sources of surface runoff or ground water to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.
- (I) The connection of the building sewer into the public sewer shall conform to the requirements of the Building and Plumbing Code or other applicable rules and regulations of the City or the procedures set forth in appropriate specifications of the A.S.T.M. and the W.P.C.F. Manual of Practice No. 9. All such connections shall be made gastight and watertight. Any deviation from the prescribed procedures and materials must be approved by the Manager before installation.
- (J) The applicant for the building sewer permit shall notify the Manager when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the Manager or his representative.

- (K) All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the City.

4-5-5:

USE OF THE PUBLIC SEWERS:

- (A) No person shall discharge or cause to be discharged any storm water, surface water, ground water, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer.
- (B) Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the Manager. Industrial cooling water or unpolluted process waters may be discharged, on approval of the Manager, to a storm sewer, combined sewer, or natural outlet.
- (C) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers.*
1. Any gasoline, benzene, maphtha, fuel oil or other flammable or explosive liquid, solid or gas.
 2. Any waters or wastes containing toxic or poisonous solids, liquids or gases insufficient quantity, either singly or by interaction with other wastes to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving waters of the Sewage Treatment Plant, including but not limited to cyanides in excess of two (2) mg/l as CN in the wastes as discharged to the public sewer.
 3. Any waters or wastes having pH lower than five and five tenths (5.5), or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewage works.
 4. Solid or viscous substances in quantities or of such size capable or causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, egg shells, cups, milk containers, inhibitory milk products, etc., either whole or ground by garbage grinders.
- (D) No person shall discharge or cause to be discharged the following described substances, materials, waters or wastes if it appears likely in the opinion of the Manager that such wastes

* Amended by Ordinance 306.

can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Manager will give consideration to such factors as to quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the Sewage Treatment Plant, and other pertinent factors. The substances prohibited are:

1. Any liquid or vapor having a temperature higher than one hundred fifty degrees (150) F. sixty five degrees (65) C.

2. Any water or waste containing fats, wax, grease or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous, at temperatures between thirty two degrees (32) and one hundred fifty degrees (150) F. (0 and 65 C.).

3. Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (p. 76 hp metric) or greater shall be subject to the review and approval of the Manager.

4. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.

5. Any waters or wastes containing iron, chromium, copper, zinc, and similar objectional or toxic substances; or wastes exerting on excessive chlorine requirement, to such degree that any such material received in the composite sewage, at the sewage treatment works exceeds the limits established by the Manager for such materials.

6. Any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the Manager as necessary, after treatment of composite sewage, to meet the requirements of the State, Federal or other public agencies of jurisdiction for such discharge to the receiving waters.

7. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Manager in compliance with applicable State or Federal regulations.

8. Any waters or wastes having a pH in excess of nine and five tenths (9.5).

9. Materials which exert or cause:

(a) Unusual concentrations of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).

(b) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).

(c) Unusual BOD, chemical oxygen demand, suspended solids, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works.

(d) Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

(E) If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in subsection (D) of this Section, and which in the judgment of the City Manager, may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the City Manager may:

1. Reject the wastes,
2. Require pretreatment to an acceptable condition for discharge to the public sewers,
3. Require control over the quantities and rates of discharge, and/or
4. Require payment to cover the added cost of handling and treating the wastes not covered by existing taxes or sewer charges not covered by existing taxes or sewer charges under the provisions of subsection (J) of this Article.

If the City Manager permits the pretreatment of equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the City Manager, and subject to the requirements of all applicable codes, ordinances and laws.

(F) Grease, oil and sand interceptors shall be provided when, in the opinion of the City Manager, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the City Manager, and shall be located as to be readily and easily accessible for cleaning and inspection.

- (G) Where preliminary treatment of flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.
- (H) When required by the City Manager, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling and measurement of the wastes. Such manhole, when required, shall be accessibly and safely located, and shall be constructed in accordance with plans approved by the City Manager. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times.
- (I) All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in the Ordinance shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association, and shall be determined at the control manhole provided, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected.

Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb and property. (The particular analyses involved will determine whether a twenty four (24) hour composite of all outfalls of a premise is appropriate or whether a grab sample or samples should be taken. Normally, but not always, BOD and suspended solids analyses are obtained from twenty four (24) hour composites of all outfalls whereas pH's are determined from periodic grab samples.)

- (J) No statement contained in this Article shall be construed as preventing any special agreement or arrangement between the City and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the City for treatment, subject to payment therefore, by the industrial concern.

4-5-6: a. PROTECTION FROM DAMAGE: No unauthorized person shall maliciously, wilfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct.

b. ?

c. Added by Ordinance 338

d. (9-9)? 10-12 Added by Ordinance 338

(e-i)?

(J) Added by Ordinance 344

4-5-7:

POWERS AND AUTHORITY OF INSPECTORS:

- (A) The Manager and other duly authorized employees of the City bearing proper credentials and identification shall be permitted to enter all properties for the purpose of inspection, observation, measurement, sampling and testing in accordance with the provisions of this Ordinance. The Manager or his representatives shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic, paper or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterways or facilities for waste treatment.
- (B) While performing the necessary work on private properties referred to in Section 4-5-7 (A) above, The Manager or duly authorized employees of the City shall observe all safety rules applicable to the premises established by the company and the company shall be held harmless for injury or death to the City employees and the City shall indemnify the company against loss or damage to its property by City employees and damage asserted against the company and growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions as required in Section 4-5-5.
- (C) The Manager and other duly authorized employees of the City bearing proper credentials and identification shall be permitted to enter all private properties through which the City holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved.

4-5-8:

PENALTIES:

- (A) Any person found to be violating any provision of this Ordinance except Section 4-5-6 shall be served by the City with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall within the period of time stated in such notice, permanently cease all violations.
- (B) Any person who shall continue any violation beyond the time limit provided for in Section 4-5-8 (A) shall be guilty of a misdemeanor, and on conviction thereof shall be fined in the amount not exceeding one hundred dollars (\$100.00) for each violation. Each day in which any such violation shall continue shall be deemed a separate offense.

(C) Any person violating any of the provisions of this Ordinance shall become liable to the City for any expense, loss or damage occasioned the City be reason of such violation.

4-5-9: COMPLIANCE: Any person having a connection to the Sanitary Sewer System upon the effective date of this Ordinance shall have ninety (90) days thereafter within which to comply with the requirements hereof. (Ord. 241; 12-31-70)

E.P.A.

EPA ADMINISTRATOR

DEPUTY ADMINISTRATOR

FIVE ASSISTANT ADMINISTRATORS

FEDERAL WATER
QUALITY ADMINISTRATION

ADMINISTRATION OF FEDERAL
WATER POLLUTION CONTROL ACT

D.E.Q.

EXECUTIVE DIRECTOR OF ENVIRONMENTAL QUALITY

EXECUTIVE COMMITTEE

AIR QUALITY
COMMISSION

WATER QUALITY
COMMISSION

CHEMICAL TECHNOLOGY
COMMISSION

SOLID WASTE DISPOSAL
COMMISSION

CHAIRMAN OF IOWA
DEVELOPMENT COMMISSION

DIVERSIFIED
FARMER

MANAGER OF PRIVATELY
OWNED MANUFACTURING COMPANY

TWO MEMBERS
APPOINTED
BY GOVERNOR