Approved March 28, 1988
Date

MINUTES OF THE HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES.

The meeting was called to order by Representative Dennis Spaniol at
Chairperson

3:30 ~~a.m.~~/p.m. on March 16, 1988 in room 526-S of the Capitol.

All members were present except:

Representative Charlton (excused)
Representative Sifers (excused)

Committee staff present:

Raney Gilliland, Legislative Research
Laura Howard, Legislative Research
Arden Ensley, Revisor
Betty Ellison, Committee Secretary

Conferees appearing before the committee:

Mary Ann Bradford, League of Women Voters of Kansas
Charlene A. Stinard, Kansas Natural Resource Council
Margaret Post Ahrens, Kansas Chapter, Sierra Club
Ken Peterson, Associate Director, Kansas Petroleum Council
Herman Fritschen, General Manager for Safety, Environment and Health, Cities Service Oil and Gas Corporation, Tulsa, Oklahoma
M.S. Mitchell, President, Home Builders Association of Kansas, Inc.
Barney E. Sullivan, Executive Director, Eastern Kansas Oil and Gas Association, Inc., Chanute, Kansas
Vernon McKinzie, Legislative Chairman, Kansas Termite and Pest Control Association, Emporia, Kansas

Chairman Dennis Spaniol called the meeting to order.

Senate Bill 455--Environment contamination response act; Re Proposal No. 12.

Laura Howard gave a staff briefing on the history of Senate Bill 455. She said that last April, Jack Walker, then Acting Secretary of the Department of Health and Environment, had requested interim studies on all of the issues involved in environmental remediation, with the purpose of providing new or mandatory legislation to this legislature. The Department had perceived that there were some existing inadequacies in the current Hazardous Waste Cleanup statutes. The proposal was referred to the Special Committee on Energy and Natural Resources. During the summer interim, the Department of Health and Environment presented testimony and then presented a proposed bill draft to the interim committee. The committee discussed the bill at length, but did not have an opportunity during the interim to hold public hearings. They made some adjustments to the bill and recommended that it be introduced without any recommendation and that full hearings be held on the bill during this session.

The Chairman noted that the Memorandum of Understanding between the Kansas Corporation Commission and the Department of Health and Environment had been received and copies were distributed to committee members. (Attachment 1)

Mary Ann Bradford, representing the League of Women Voters of Kansas, was the first proponent. She said that her organization was one of four presenting a joint statement, and listed five other organizations that support the joint statement. (Attachment 2)

Charlene Stinard represented the Kansas Natural Resource Council with testimony in support of Senate Bill 455. Her testimony dealt with the definitions of "contaminant" and "responsible party." (Attachment 2)

Written testimony by another proponent, Vic Studer, in representation of the Kansas Rural Center, was included in the joint statement. Her comments dealt with cleanup standards and access. (Attachment 2)

Margaret Post Ahrens represented the Kansas Chapter - Sierra Club with favorable testimony. She felt that Senate Bill 455 carefully defined flexible and accountable authority for environmental remediation. (Attachment 2) Discussion followed.

Ken Peterson, representing the Kansas Petroleum Council, noted that his organization supported the concept of remediation, but were concerned about the mechanics of Senate Bill 455. His concerns related to the cost-effectiveness of the program, as well as some definitions in the bill. (Attachment 3) Following his brief remarks, Mr. Peterson introduced Mr. Fritschen from one of their member companies.

Mr. Herman Fritschen of Cities Service Oil and Gas Corporation, commented that one of his concerns was consistency in laws which interface at both the state and federal levels. He suggested alternatives to several areas of Senate Bill 455 which would make it more consistent with federal law and reduce the regulatory cost burden to the State of Kansas. (Attachment 4) Mr. Fritschen provided suggested amendments to the bill (Attachment 5) Committee discussion followed.

M.S. Mitchell represented the Home Builders Association of Kansas with testimony in opposition to Senate Bill 455. He believed that with the number of issues on which there was no agreement among experts in the environmental field, the bill should be set for further study--this time with an opportunity for those who may be greatly affected by such legislation to have input to the study committee. Mr. Mitchell offered to provide written testimony at a later date. Discussion followed.

Barney Sullivan, representing Eastern Kansas Oil & Gas Association, spoke in opposition to Senate Bill 455. He felt that this bill should be tabled until a study currently being conducted by the University of Kansas in conjunction with the Kansas Geological Society could be completed and revealed to the legislature. He expressed concern that some of the definitions in the bill were too broad. He asked that should the bill be passed, it be amended to eliminate the oil and gas industry from it. (Attachment 6) During discussion, the Chairman asked if the Senate amendment on Page 15 and the Memorandum of Understanding addressed some of his concerns. Mr. Sullivan said he had not seen the Memorandum, but the amendment on page 15 did not alleviate the concerns to his membership's satisfaction. Further discussion followed.

Vernon McKinzie, representing the Kansas Termite and Pest Control Association, presented testimony opposing Senate Bill 455. His group supported the concept of the bill and felt that the Senate amendments improved the original draft. However, they still had some concerns, particularly the definitions found on lines 91-112. The phrase "or should have known" was a special concern. (Attachment 7)

Copies of the Kansas Department of Health and Environment's 1987 Report on Contamination Sites in Kansas were distributed to all committee members. (Attachment 8) This report covers site inventory, rankings, remediation activities.

The meeting was adjourned at 5:05 p.m.

The next meeting of the House Energy and Natural Resources Committee will be held at 3:30 p.m. on March 17, 1988 in Room 526-S.

Date: March 16, 1988

GUEST REGISTER

HOUSE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

NAME	ORGANIZATION	ADDRESS	PHONE
BARNEY SULLIVAN	EKOGA	CHANUTE	316 431-1020
DON MARTIN	EKOGA	TOLA	316 365-6175
WALTER DUNN	EKOGA	TOPEKA	2725674
KENNETH WIMSETT	OIL PROD. W&W Oil	CHANUTE	431-4137
Ken Peterson	KS PETROLEUM Cncl	Topeka	234-0589
DAN STEVENS	TEXACO	TULSA, OK	918 560-6035
Robert Henderson	McCart Oil Co	Olathe	347-1334
Bob Hodges	KCCI	Topeka	357-6321
Mary Ann Bradford	League of Women Voters	"	354-1646
Kathy Duncan		Topeka	272-1341
Joe A. Morris	KLSI	TOPEKA	234-6752
Bernie Koch	Wichita Chamber	Wichita	316 265-7771
M.S. MITCHELL	~~KBCA~~ Home Builders of Kansas	1215 Forest Wichita 67203	316 265-9812
JANET STUBBS	KBAK	Topeka	233-9853
Pat Carney	KDHE	"	296-1330
Dale Lamble	KSBA	Topeka	296-2263
Dennis Murphey	KDHE	Topeka	296-1592
Ron Hammerschmidt	KDHE	Topeka	296-1662
James Power	KDHE	Topeka	296-1551
Vernon McKinzie	Kansas Termite & Pest Control Assn.	Emporia	342-4222
PAUL MAGES	SCHENDEL PEST CONTROL	Topeka	232 9344
Glenn Kendall	Cities Service Oil Co	Tulsa	918 561-4580

Date: March 16, 1988

GUEST REGISTER

HOUSE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

NAME	ORGANIZATION	ADDRESS	PHONE
Alan Steppat	Pete McGill & Associates	Topeka	233-4512
Debra McDonnell	Ks. Corporation Comm	"	2347
Shari M Feist	KCC	Wichita	316 263-3238
Tom Taylor	KPL Gas Service	Topeka	296-1927
	KBIA	"	
John Strickler	Gov Office	Topeka	2584

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

AND THE

KANSAS CORPORATION COMMISSION

LEGISLATIVE AUTHORITY

As a result of the enactment of House Bill 3078 by the 1986 Legislature, the former joint Kansas Corporation Commission/Kansas Department of Health and Environment regulatory program over oil and gas activities was dissolved. House Bill 3078 specifies that the Kansas Corporation Commission (KCC) has exclusive jurisdiction and authority to regulate oil and gas activities. Pursuant to K.S.A. 1987 Supp. 74-623(a), the KCC's jurisdiction includes:

(1) all practices involved in the exploration for and gathering of oil and gas and the drilling, production, lease storage, treatment, abandonment, and post-abandonment of oil and gas wells, except refining, treating, or storing of oil and gas after transportation of the same; and

(2) prevention and cleanup of pollution from oil and gas activities, which jurisdiction shall be exercised in cooperation with the department of health and environment.

K.S.A. 1987 Supp. 74-623(b) specifies that the Kansas Department of Health and Environment (KDHE) shall have:

"jurisdiction and authority relating to the cleanup of pollution from oil and gas activities, which jurisdiction shall be exercised in cooperation with the state corporation commission."

KDHE has authority to make rules and regulations necessary to clean up pollution resulting from oil and gas activities regulated by the KCC and to protect Kansas soil and water from pollution resulting from oil and gas activities not regulated by the KCC. K.S.A. 1987 Supp. 65-171d. The Kansas Legislature further granted to KDHE the right of ingress and egress upon lands to clean up pollution resulting from oil and gas activities. Id.

IMPLEMENTATION

Definitions

1. Abandoned lease means the land defined by legal description in an oil and gas lease agreement upon which oil and gas activities had previously been conducted. The oil and gas activities shall be considered terminated and the lease abandoned when all such activities have ceased for a period in excess of 90 days and no application to temporarily abandon has been filed with the KCC pursuant to K.A.R 82-3-111.
2. Active lease means the land defined by legal description in an oil and gas lease agreement upon which are located oil and gas wells and auxiliary oilfield equipment and upon which oil and gas activities are currently being conducted.

KCC Responsibility

The KCC shall be responsible for the prevention and cleanup of pollution resulting from oil and gas activities regulated by the KCC on active leases. This responsibility includes planning and supervision of the cleanup operation. Funding for such activities shall be provided by the lease operator.

KDHE Responsibility

The KDHE shall be responsible for the cleanup of pollution resulting from oil and gas activities regulated by the KCC on abandoned leases. This responsibility includes planning, supervision, and funding of the cleanup operation unless such cleanup involves the plugging of abandoned oil and gas wells. Such plugging shall be the responsibility of the KCC pursuant to K.S.A 1987 Supp. 55-179.

The KDHE has exclusive authority to regulate the protection of Kansas soil and waters from pollution resulting from oil and gas activities not regulated by the KCC and from pollution from sources other than oil and gas activities.

Shared Responsibility

In the spirit of cooperation, KDHE and KCC agree to share responsibility for the cleanup of pollution resulting from oil and gas activities regulated by the KCC in those situations where such pollution travels beyond the boundaries of an active lease. This shared responsibility includes the planning and supervision of cleanup operations. A procedural manual for cleanup shall be developed by the Secretary of KDHE or a designee and the KCC's Conservation Division Director and will be used by both agencies in cleanup activities.

For purposes of this memorandum of understanding, the lead agency for cleanup where responsibility is shared, shall be the agency to which the legislature has made funds available for cleanup. In order to facilitate cooperation, KCC and KDHE shall identify and assign personnel to coordinate the joint responsibilities.

Administration

The KDHE shall adopt rules and regulations necessary to clean up pollution resulting from oil and gas activities regulated by the KCC pursuant to its authority in K.S.A. 1987 Supp. 65-171d. Such rules and regulations shall also cover cleanup of pollution on abandoned leases and where KCC and KDHE share responsibility for cleanup. KDHE shall seek the advice and counsel of KCC in the preparation of these rules and regulations.

The KCC hereby agrees to provide the KDHE with its monthly plugging report and to apprise the KDHE of the start-up and completion of pollution cleanup on active leases. An annual report of such cleanup activity shall also be provided to the KDHE. THE KDHE hereby agrees to apprise the KCC of the start-up and completion of pollution cleanup on abandoned leases where the pollution has its source in oil and gas activities regulated by the KCC.

Term of the MOU

This agreement shall be effective upon signing and shall be in effect until June 30, 1989, unless expressley continued by written agreement between the Secretary of the Department and the Chairman of the Commission.

This agreement supercedes any previous agreements between KCC and KDHE made pursuant to H.B. 3078.

Stanley C. Grant, Secretary Kansas Department of Health and Environment	Date
Keith R. Henley, Chairman Kansas Corporation Commission	Date
Rich Kowalewski, Commissioner Kansas Corporation Commission	Date
Margalee Wright, Commissioner Kansas Corporation Commission	Date

Testimony before the House Energy and Natural Resources Committee

March 15, 1988

Concerning SB 455: The Environmental Contamination Response Act

TESTIMONY PRESENTED BY:

SPEAKER	ORGANIZATION	MEMBERS
Mary Ann Bradford	League of Women Voters of Kansas	1,000
Charlene A. Stinard	Kansas Natural Resource Council	800
Margaret Ahrens	Kansas Chapter - Sierra Club	2,000
Vic Studer	Kansas Rural Center	2,500

TESTIMONY ENDORSED BY:

Kansas Wildlife Federation	8,000
Kansas Members - National Wildlife Federation	10,000
Kansas Audubon Council	5,000
Kansas Recreation and Park Association	500
Kansas Canoe Association	200
COMBINED MEMBERSHIP	30,000

Mr. Chairman and Members of the Committee:

I am MARY ANN BRADFORD, representing the LEAGUE of WOMEN VOTERS of KANSAS. Representatives of three other organizations, Kansas Chapter of the Sierra Club, Kansas Natural Resource Council, and the Kansas Rural Center, and I are presenting a joint statement to economize on the Committee's time and to prevent redundancy that might occur with separate statements.

Five other organizations, listed below, support this joint statement and share our concern for contamination or pollution of Kansas' water, air, and soil:

Kansas Wildlife Federation
Kansas Members - National Wildlife Federation
Kansas Audubon Council
Kansas Recreation and Park Association
Kansas Canoe Association

The Environmental Contamination Response Act seems a logical response to problems encountered during state activities to clean up hazardous waste sites -- problems, for example, in identifying the party(ies) responsible for the pollution, and problems in gaining access to property to determine the kind and extent of contamination. The Special Committee on Energy and Natural Resources, on which some of you served, made some changes in the original draft of a bill to address these problems. After hearings and during markup meetings, the Senate Energy and Natural Resources Committee painstakingly amended SB 455. You now have before you a bill quite different from the draft bill of last fall.

There are several provisions of the bill we would like to address:

- definitions of contaminant and responsible party
- cleanup standards and site access
- who is responsible for protecting the environment, and who pays for pollution.

All our organizations support SB 455, and would recommend it as a bill which clarifies and delineates bureaucratic authority in an area that requires both agency flexibility and strict accountability to the citizens of Kansas.

Charlene Stinard, representing the Kansas Natural Resource Council, will speak about definitions of contaminant and responsible party.

CHARLENE A. STINARD (KANSAS NATURAL RESOURCE COUNCIL)

I would like to address two definitions which emerged from the work on SB 455, contaminant and responsible party.

First, we strongly urge acceptance of the expansive definition of contaminant in this bill. (See 1. 0046 ff.)

> A contaminant is defined as "a substance which ... will cause or significantly contribute to an increase in mortality ... or pose a significant ... hazard to human health or the environment."

The Secretary is required to adopt rules and regulations for the listing of each contaminant. It is important to note that two essential elements of the Kansas economy have been substantially exempted:

(1) Agricultural chemicals used according to label instructions are not considered contaminants; this exclusion seems both appropriate and responsible.
(2) The current status of oil and gas activities remains unaffected by SB 455. The Kansas Corporation Commission retains responsibility for activities on active oil and gas leaseholds. KDHE has responsibility for remediation activities at abandoned well sites.

Second, the definition of responsible party is essential to the state's ability to recover expenses for remedial actions. (See 1. 0091 ff.)

> A responsible party is someone "who knew or should have known at the time a release occurred that the release was likely to threaten public health or the environment."

Careful definition is critical to recovering cleanup expenses; there is no current body of Kansas case law to which KDHE and the courts can refer in disputes over responsibility in cost recovery actions.

Statutory definitions establish parameters, for the agency as well as the public, which do not now exist. This bill will improve the operation of the state's cleanup program, making it both more responsive and more responsible to the executive, the legislature, and to the citizens of Kansas.

Vic Studer, representing the Kansas Rural Center, will address cleanup standards and access.

VIC STUDER (KANSAS RURAL CENTER)

Concerning the cleanup standards this bill would provide, the current problem is uncertainty: How clean is clean? Difficulties arise in making reasonable projections of how long cleanup is actually going to take, how much money is needed, and what kind of technology is necessary to achieve it. With rules and regulations that clearly state the standards in Kansas, a company involved in a cleanup will have specific criteria to present to a design engineer or hydrologist. The advantages would benefit the regulatory community as well as the regulated community, by providing everyone with specific guidelines. It is currently a very nebulous situation where companies are simply told to start the cleanup, and KDHE will let them know when to stop, thus leaving the cleanup open-ended, with projections in terms of time and cost nearly impossible to estimate.

Procedures for gaining access to private property to conduct investigation and cleanup of contaminated sites has been a problem for the agency. In the face of uncooperative parties, KDHE has been forced to go to court to gain access, costing precious time and resources that would be better spent on cleanup itself. This bill provides the statutory authority for the agency to enter property to assess the problem and conduct cleanup. The bill also provides for the protection of individual and property rights by requiring prior written notice to the owner/occupant. Any person adversely affected by an order of the secretary may appeal and be heard under provisions of the Kansas Administrative Procedures Act. Clarification of rights and responsibilities is a major strength of this bill.

Margaret Ahrens, Kansas Chapter - Sierra Club, will summarize our comments on SB 455.

MARGARET POST AHRENS (KANSAS CHAPTER - SIERRA CLUB)

If I have learned one thing working in the Legislature, it is that, contrary to the opinion of some, legislators do not like to spend the people's money, especially not on contamination cleanup. In my discussions with legislators about the necessity of funding Kansas' natural resources, I found that designating moneys for cleanup is the LEAST popular expenditure idea around.

One reason for the unpopularity of remediation spending is that we are convinced that those who cause contamination should clean it up, and we expect that they will. We believe in responsibility.

Another reason is that some of us still believe in the earth's ability to absorb the challenges of hazardous materials and certain industrial practices. Options like hazardous waste collection programs or cautious industrial practices are considered impractical, for they cost money.

Cleanup spending is unpopular unless a neighbor or a community near us has a water problem that will not go away; unless it is close, we do not feel the urgency. We often do not realize the economic impact contamination will have on property values, on our ability to transfer property and to attract others to the area.

Finally, it is easier for all of us to think in parts rather than in wholes. We find it difficult to believe that what we do to the top of the earth, we do to the ground and water below and the air above.

Given the reluctance to pay for contamination cleanup, what can the state do to protect the health and safety of its citizens and the quality of its natural resources?

The state can pass laws, like SB 455, defining responsibility and authority for contamination remediation. This clarification protects citizens, businesses, and the state in numerous ways.

- It preserves state funds from waste on court battles, reserving scarce cleanup moneys for critical sites where a responsible party cannot be found.
- It protects the innocent property owner and business from having to pay for pollution they did not cause.

The state can reaffirm its authority, for example, to access property; and it can set up procedures to guard against its own misuse of that power.

The state can define pollutants so that citizens and industries know what materials and activities need special care, so that we will not find pollutants in our water thirty years later.

The state can say what "clean" is, so that those responsible for cleanup have standards toward which to work.

We all want to reflect our pride in Kansas' natural resources. How does SB 455 achieve this objective? We believe that the long, careful work that went into this bill has produced a solid product: a bill that shows that the Legislature is proud of its land and its water, and cares for its people -- that the Legislature will, using good reason, expect cleanup, and as a result of that expectation, prevent further costly contamination.

We support SB 455, a bill that carefully defines flexible and accountable authority for environmental remediation.

Testimony on SB 455

For House Energy and Natural Resources Committee

By the Kansas Petroleum Council

March 16, 1988

I am Ken Peterson, associate director of the Kansas Petroleum Council. I'm here this afternoon to address SB 455, the Environmental Contamination Response Act.

The Kansas Petroleum Council should not be labeled as totally opposed to SB 455. We support the concept of remediation, but we are concerned about the mechanics of the bill now before you.

With your permission, Mr. Chairman, I would like to very briefly state what are our overall concerns are and then have you meet Mr. Herman Fritschen, General Manager, Safety, Environmental & Health Services for one of our member companies, Cities Service Oil and Gas Corporation. Mr. Fritschen has a great deal of expertise in the environmental field. He is here at our invitation to speak to the specific concerns of our industry and to answer any questions you may have.

One of our concerns is whether the progam envisioned by SB455 will prove to be cost-effective, for the state as well as those who will be held responsible for cleanups. We also are concerned about some definitions in the bill that are either confusing or too broad to be applied fairly. We think there needs to be more consistency in state laws which are generated by laws passed by the Congress. Unnecessary duplication should be avoided wherever possible.

Finally, we are concerned about the wide descretionary authority the bill gives to the Secretary. It should be evident that our particular industry is already heavily regulated by both federal and state government. We are doing our best to operate all of our facilities in compliance with many complex and costly controls.

We intend to cooperate with the state in making remediation work in Kansas.

With that, I would like to bring Mr. Fritschen forward to elaborate on those provisions in the bill that are of primary concern to our industry.

OUTLINE OF REMARKS ON KANSAS SENATE BILL 455
PRESENTED BEFORE THE KANSAS HOUSE ENERGY COMMITTEE
ON WEDNESDAY, MARCH 16, 1988

by
CITIES SERVICE OIL AND GAS CORPORATION

- Section 2, part (a) -- cleanup standard
- Section 2, part (b) -- contaminant
- Section 2, part (c) -- contaminated site
- Section 2, part (g) -- Environmental Protection Agency permit restriction
- Section 2, part (h) -- remedial action
- Section 4, part (b) -- priority order of sites to be cleaned up
- Section 6, part (a) -- damage measurement guidelines
- Liability provisions -- no fault parties

REMARKS ON KANSAS SENATE BILL 455

PRESENTED BEFORE THE KANSAS HOUSE ENERGY COMMITTEE

ON WEDNESDAY, MARCH 16, 1988

BY

CITIES SERVICE OIL & GAS CORPORATION

GOOD AFTERNOON, LADIES AND GENTLEMEN. MY NAME IS HERMAN FRITSCHEN. I AM THE GENERAL MANAGER FOR SAFETY, ENVIRONMENT AND HEALTH FOR CITIES SERVICE OIL AND GAS CORPORATION, A MAJOR PRODUCER OF OIL AND GAS HERE IN KANSAS. OUR COMPANY AND ITS SUBSIDIARIES EMPLOY 270 KANSAS CITIZENS AT 21 FACILITIES IN 15 COMMUNITIES THROUGHOUT THE STATE. CITIES SERVICE AND ITS AFFILIATES HAVE BEEN CORPORATE CITIZENS IN KANSAS FOR OVER 70 YEARS. AS A MATTER OF FACT, THE COMPANY'S FIRST DECADE IN BUSINESS WAS MARKED BY SEVERAL NOTABLE OIL DISCOVERIES HERE. CITIES SERVICE PLACES GREAT IMPORTANCE ON KANSAS AND EXPECTS TO CONTINUE TO MAKE CONSIDERABLE CONTRIBUTIONS TO ITS ECONOMY AND CULTURE FOR YEARS TO COME.

I APPRECIATE THIS OPPORTUNITY TO OFFER SOME REMARKS ON SENATE BILL 455, WHICH WOULD AUTHORIZE THE ADMINISTRATION OF SEVERAL ENVIRONMENTAL CLEANUP FUNDS FOR THE STATE. FIRST, I WOULD LIKE TO EMPHASIZE THAT CITIES SERVICE IS <u>NOT</u> OPPOSED TO ESTABLISHING

OR FUNDING OF A STATE SUPERFUND. WE CONSIDER OURSELVES GOOD CORPORATE CITIZENS AND TRY TO ACT RESPONSIBLY IN THE 34 STATES IN WHICH WE OPERATE. THEREFORE, WE HAVE STUDIED THIS BILL TO DETERMINE IF WE CAN EFFECTIVELY COMPLY WITH ITS PROPOSED PROVISIONS, SHOULD IT SOMEDAY BECOME NECESSARY FOR US TO DO SO.

ONE OF OUR PRIMARY CONCERNS WITH LEGISLATION OF THIS TYPE IS THAT IT SHOULD NOT BECOME OVERLY BURDENSOME TO THE STATE OR TO THE REGULATED COMMUNITY. THOSE OF US WHO OPERATE IN A MULTI-STATE ENVIRONMENT REALIZE THE IMPORTANCE OF CONSISTENCY IN LAWS AND REGULATIONS WHICH INTERFACE AT BOTH THE STATE AND FEDERAL LEVELS. PARTICULARLY IN THE CASE OF ENVIRONMENTAL LAW, WE BELIEVE CONSISTENCY IS IMPORTANT FOR THE EFFICIENT HANDLING OF REQUIRED OPERATIONS, REDUCING ADMINISTRATIVE COSTS AND IMPROVING CLEANUP RESPONSE TIME. I WOULD LIKE TO EMPHASIZE THAT A STATE'S PRACTICAL TREATMENT OF ENVIRONMENTAL ISSUES MUST BE CONSIDERED AN INTEGRAL PART OF ITS EFFORTS TO PROVIDE A HEALTHY ENVIRONMENT FOR ITS CITIZENS AND TO CREATE AN ATTRACTIVE BUSINESS CLIMATE.

IN SPITE OF SEVERAL NOTABLE IMPROVEMENTS MADE BY YOUR COLLEAGUES IN THE SENATE, THIS BILL STILL CONTAINS SOME PROVISIONS WHICH WOULD FORCE KANSAS TO UNDERTAKE NEEDLESS AND COSTLY STUDIES AND ACTIONS WHICH HAVE ALREADY BEEN PERFORMED BY THE FEDERAL GOVERNMENT.

I WOULD LIKE TO SUGGEST FOR YOUR CONSIDERATION SOME ALTERNATIVES TO A FEW SECTIONS OF SENATE BILL 455 WHICH WOULD MAKE IT MORE CONSISTENT WITH FEDERAL LAW AND REDUCE THE REGULATORY COST BURDEN TO THE STATE OF KANSAS.

I STRONGLY RECOMMEND THAT SECTION 2, PART (a), WHICH DEFINES "CLEANUP STANDARD", BE BASED ON SECTION 121 OF THE FEDERAL SUPERFUND STATUTE. AS NOW CONSTRUCTED, SENATE BILL 455 WOULD ALLOW KDHE TO CONSIDER AND SELECT FROM A BROAD RANGE OF STANDARDS FROM DIFFERENT SOURCES. KANSAS TAXPAYERS -- ALONG WITH TAXPAYERS FROM THE OTHER 49 STATES -- HAVE ALREADY PAID FOR THE ESTABLISHMENT OF THE FEDERAL SUPERFUND'S STRINGENT, HUMAN HEALTH-ORIENTED STANDARDS. I BELIEVE THAT THE ENVIRONMENT AND THE RESIDENTS OF THIS STATE WILL RECEIVE STRONG AND COMPREHENSIVE PROTECTION UNDER A SINGLE SELECTION OF STANDARDS, AS DEFINED BY SECTION 121 OF THE FEDERAL SUPERFUND STATUTE.

SECTION 2, PART (b), PROVIDES A VERY BROAD AND VAGUE DEFINITION FOR "CONTAMINANT". IT FURTHER PROVIDES THE KDHE, AND I QUOTE, "...SHALL ADOPT RULES AND REGULATIONS FOR A LISTING OF EACH CONTAMINANT...", UNQUOTE. THIS PROVISION CONJURES UP THE SPECTER OF HUNDREDS -- IF NOT THOUSANDS -- OF MANHOURS TO BE SPENT IN IDENTIFYING, DEBATING, LISTING AND REGULATING POTENTIALLY HAZARDOUS SUBSTANCES. THIS WORK IS ALREADY BEING DONE BY FEDERAL ENVIRONMENTAL EXPERTS; THE RESULTING LISTS OF CONTAMINANTS MEET THE CRITERIA ESTABLISHED BY SECTION 101, SUBPARAGRAPH (14) OF THE FEDERAL SUPERFUND STATUTE. I RESPECTFULLY SUGGEST THAT KANSAS COULD SAVE CONSIDERABLE TIME AND MONEY BY ADOPTING THE SAME COMPREHENSIVE LISTS OF POTENTIAL CONTAMINANTS.

SECTION 2, PART (c) OF THE BILL ATTEMPTS TO DEFINE A "CONTAMINATED SITE". I SAY IT "ATTEMPTS TO DEFINE" BECAUSE IT NEITHER LIMITS A SITE GEOGRAPHICALLY NOR DOES IT ADDRESS THE MORE BASIC PROBLEM OF CLEANING UP AFFECTED SITES. YOU WILL NOTE THAT "CONTIGUOUS LAND" IS TO BE TREATED JUST LIKE THE LAND WHERE A

RELEASE HAS OCCURRED. I BELIEVE THAT THE BILL IS ATTEMPTING TO ADDRESS THE PROBLEM OF CONTAMINANTS THAT MAY MIGRATE OFFSITE. I PROPOSE THAT THIS SECTION BE AMENDED TO READ: "CONTAMINATED SITE MEANS THE PROPERTY ON WHICH THE RELEASE HAS OCCURRED, WHICH MAY INCLUDE ANY STRUCTURES AND OTHER APPURTENANCES AND IMPROVEMENTS THERETO AND ADJOINING LAND WHICH, BY NATURE OF THE RELEASE, MAY BE REASONABLY EXPECTED TO HAVE BEEN AFFECTED BY THE RELEASE".

SECTION 2, PART (g) WOULD EXEMPT FROM THE BILL RELEASES OR DISCHARGES WHICH ARE PERMITTED BY THE STATE OR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. THIS PROVISION RECOGNIZES THAT SUCH PERMITTED RELEASES ARE CONDUCTED IN ACCORDANCE WITH RECOGNIZED STATE AND FEDERAL GUIDELINES. HOWEVER, IT SEEMS INAPPROPRIATE TO LIMIT THE BILL'S RECOGNITION OF FEDERAL PERMITS TO ONLY THOSE GRANTED BY THE EPA. WHILE IT IS TRUE THAT MOST ENVIRONMENTAL PERMITS ARE ISSUED UNDER THE EPA'S UMBRELLA, THIS MAY NOT ALWAYS CONTINUE TO BE THE CASE. OTHER EXISTING FEDERAL AGENCIES MAY ACQUIRE RESPONSIBILITIES IN THIS AREA AND THERE IS ALWAYS THE POSSIBILITY THAT NEW AGENCIES WILL BE CREATED TO UNDERTAKE THIS WORK. TO PREVENT THE LEGISLATURE FROM HAVING TO REVISE THE PROPOSED KANSAS STATUTE AS TIME GOES ON, I SUGGEST IT WOULD BE MORE APPROPRIATE TO CHANGE SECTION 2 PART (g) TO READ "ISSUED BY AGENCIES OF THE STATE OR THE UNITED STATES GOVERNMENT".

SECTION 2, PART (h) OF THE BILL PROPOSES A VERY BROAD DEFINITION FOR "REMEDIAL ACTION". WE HAVE NO QUARREL WITH ITS INTENT, BUT BELIEVE THAT THIS LANGUAGE COULD BE GREATLY IMPROVED BY INCORPORATING THE PRACTICE OF COST-BENEFIT ANALYSIS INTO THE SELECTION OF AN APPROPRIATE REMEDIAL ACTION EFFORT, BASED ON CURRENT STATE OF THE ART TECHNOLOGY. THIS ANALYSIS WOULD ALSO TRACK WITH

SECTION 121 OF THE FEDERAL SUPERFUND ACT. WITH THIS CHANGE, THE ULTIMATE SELECTION OF THE CLEANUP METHOD FOR A PARTICULAR SITE WOULD MORE LIKELY BE ONE WHICH PROVIDES THE GREATEST PROTECTION FOR KANSAS WITHOUT UNNECESSARY AND UNJUSTIFIED ECONOMIC EXPENDITURES.

SECTION 4, PART (b) OF THE BILL INDICATES THE FACTORS THAT KDHE MUST CONSIDER WHEN DECIDING THE PRIORITY ORDER OF SITES TO BE CLEANED UP. AS THIS SECTION IS NOW WRITTEN, THE HAZARD RANKING OF A SITE, THE WILLINGNESS AND ABILITY OF A RESPONSIBLE PARTY TO CLEAN UP A SITE AND THE AVAILABILITY OF FEDERAL MONIES FOR REMEDIAL ACTION SEEM TO BE OF EQUAL IMPORTANCE. I CONTEND THAT THE IMMINENT DANGER A SITE PRESENTS TO HUMAN HEALTH IS FAR MORE IMPORTANT THAN THE WILLINGNESS OF A RESPONSIBLE PARTY TO TAKE ACTION OR THE AVAILABILITY OF FEDERAL MONIES. THIS PROVISION SHOULD BE REWRITTEN TO EMPHASIZE THE OVERRIDING IMPORTANCE OF CLEANING UP THE MOST HAZARDOUS SITES FOR THE BENEFIT OF HUMAN HEALTH.

SECTION 6, PART (a) OF THE BILL WOULD MAKE A PERSON RESPONSIBLE FOR ENVIRONMENTAL CONTAMINATION LIABLE, AND I QUOTE, ". . .FOR WHATEVER DAMAGE THE CONTAMINATION DOES OR HAS DONE TO NATURAL RESOURCES IN THE STATE", UNQUOTE. THIS WOULD BE IMPOSED <u>IN ADDITION TO</u> THE LIABILITY FOR CLEANUP COSTS AND APPEARS TO BE OPEN-ENDED. I BELIEVE THE BILL SHOULD REFER TO EXISTING FEDERAL DAMAGE MEASUREMENT GUIDELINES, PROMULGATED UNDER FEDERAL SUPERFUND AND ADOPTED BY VARIOUS FEDERAL AGENCIES.

I KNOW THAT YOU ARE AWARE OF THE BILL'S CONCEPT OF STRICT LIABILITY. HOWEVER, WE MUST ALSO REMEMBER THAT CONGRESS WAS FORCED TO MODIFY ITS CONCEPT OF LIABILITY TO CONSIDER THE PROBLEMS ASSOCIATED WITH DE MINIMIS CONTRIBUTORS AND SETTLING PARTIES.

WITH THIS IN MIND, I URGE KANSAS TO DEVELOP QUICK AND EFFICIENT RELEASE MECHANISMS FOR THESE TYPES OF PARTIES.

WHILE THE LIABILITY OF A RESPONSIBLE PARTY IS SET FORTH AT LENGTH IN SENATE BILL 455, I OFFER ONE ADDITIONAL PROVISION TO PROTECT INNOCENT PARTIES: WHERE A CLEANUP OBLIGATION EXISTS, WHICH IS NOT BASED UPON THE NEGLIGENCE OR FAULT OF THE PRESENT SITE OWNER/OPERATOR, AND THE RESPONSIBLE PARTY NO LONGER EXISTS OR CANNOT BE FOUND, THEN I STRONGLY URGE THAT TRANSACTION COSTS BE BORNE BY THE BENEFITING PARTIES -- THE CITIZENS AND TAXPAYERS OF KANSAS, LETTING THE PROPOSED STATE FUND BEAR THE MAJORITY OF THE CLEANUP COSTS.

BY NOW, YOU MAY HAVE DOUBTS ABOUT MY EARLIER STATEMENT THAT CITIES SERVICE IS NOT OPPOSED TO A STATE SUPERFUND FOR KANSAS.

HOWEVER, I WISH TO REITERATE THAT WE SUPPORT THE ESTABLISHMENT AND FUNDING OF STATE SUPERFUNDS WHEN CIRCUMSTANCES FORCE A STATE TO TAKE CLEANUP ACTION BECAUSE THE FEDERAL GOVERNMENT DOES NOT RANK ALL STATE SITES ON THE NATIONAL PROPRITY LIST.

THIS CONCLUDES MY PREPARED REMARKS ON THE LEGISLATION BEFORE THE COMMITTEE. I WILL BE HAPPY TO ANSWER ANY QUESTIONS THAT YOU MAY HAVE AT THIS TIME. THANK YOU.

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 2 (a)

(b) "Cleanup standard" means national health or environmental standard or modification thereof which has been ~~1)~~ Aadopted and promulgated by the federal government pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (PL 96-510) and amendments thereto. ~~a nationally recognized standards producing organization; (2) adopted by Kansas statute or rule and regulation; or (3) designated a standard by the secretary after consultation with appropriate state and federal agencies.~~

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 2 (b)

(b) "Contaminant" means a substance which because of its presence in the environment and its quantity, concentration, or physical, chemical or biological characteristics, is subject to the rules and regulations adopted and promulgated by the federal government pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (PL 96-510) and amendments thereto ~~will cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating illness, or pose a significant present or potential hazard to human health or the environment. The secretary shall adopt rules and regulations for a listing of each contaminant.~~

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 2 (c)

(c) "Contaminated Site" means ~~all contiguous land,~~ the property on which the release has occurred, which may include any structures and other appurtenances and improvements ~~on the land wherein a release of a contaminant or contaminants has occurred,~~ thereto and adjoining land which, by nature of the release, may be reasonably expected to have been affected by the release.

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 2 (g)

(g) "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, including the abandonment or discarding of barrels, containers and other closed receptacles containing any contaminants. Such term shall not include those releases of contaminants which occur in compliance with permits for discharge of pollutants issued by the state or the United States ~~environmental protection agency~~ government, or the application or use of any agricultural chemical, as defined by K.S.A. 2-2202, and amendments thereto, commercial fertilizer, as edfined by K.S.A. 2-1201, and amendments thereto, pesticide, as defined by K.S.A. 2-2438a, and amendments thereto, or soil amendment, as defined by K.S.A. 2-2803, and amendments thereto, in accordance with the directions for application or use thereof displayed on the substance container label registered pursuant to state law or approved by the ~~federal environmental protection agency~~ United States Government.

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 2 (h)

(h) "Remedial action" means all cleanup, containment or other corrective action measures necessary to mitigate, abate or eliminate the presence of contaminants in the surface water, soil, groundwater or air. The selection of an appropriate remedial action shall take into account cost/benefit analyses of various cleanup options, based on current recognized and achievable state of the art technology. Appropriate balance shall be achieved between environmental mitigation and the economic costs to the responsible party.

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 4 (b)

(b) In determining the sequence for taking remedial action under this act, the department shall ~~consider~~ place the greatest importance on the hazard ranking of each site or facility, and shall consider of secondary importance the willingness and ability of an owner, operator or other responsible party to undertake or assist in remedial action~~,~~ and the availability of federal funds under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (PL 96-510) and as amended by the Superfund Amendments and Reauthorization Act of 1986 (PL 99-499), and other relevant factors.

AMENDMENT TO SENATE BILL 455
Substitute Language for Section 6 (a)

(a) Any person responsible for environmental contamination at a site, whether it occurred before or after the effective date of this act, shall be liable to the state of Kansas and to any other person for all response costs incurred by the state or other person in the process of providing remedial action after the effective date of this act. Such person shall also be liable to the state for whatever damage the contamination does or has done to natural resources in the state. Damage to natural resources includes damage to waters of the state, including but not limited to groundwater resources, fish, animals, other wildlife, vegetation, other biota or soil. The methodology for assessing damage to natural resources shall be derived from the guidelines for such assessments as adopted and promulgated by the federal government pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (PL 96-510) and amendments thereto.

Eastern Kansas Oil & Gas Association, Inc.
15 N. Lincoln • Box 355 • Phone 431-1020
Chanute, Kansas 66720

March 16, 1988.

Mr. Chairman

Members of the Committee

REF: SENATE BILL NO. 455

We, of EASTERN KANSAS OIL & GAS ASSOCIATION, do not oppose environmental control and we have consistently supported good legislation and will continue to do so.

SENATE BILL NO. 455 is not a bill that we can support for many reasons. We firmly believe this is not appropriate legislation for this legislative year. This legislature funded a study that is currently being conducted by the University of Kansas in conjunction with the Kansas Geological Society. This study is being conducted to determine what effect long term application of various chemicals to our environment will be. That group should also determine the source of that chemical pollution. This bill SHOULD NOT be allowed to continue but should be tabled at least until this study is completed and revealed to this legislature.

We currently report to the Kansas Corporation Commission(KCC)on our activities in the oil patch. Whenever we drill a well, we coordinate with the KCC - should we have a pit, the KCC is aware of that and assists in the planning.....should we have a loss of material (spill), the KCC is aware and polices the activity until recovery is complete, in many instances in conjunction with the Kansas Department of Health & Environment. It is our understanding that the two departments are working together but the KCC has the authority to make a decision.

Previously, under 1982 legislation, we were to comply with regulations from both the KDHE and the KCC. This was an exasperating experience and we quickly were reminded that no man can serve two masters. A blue ribbon committee was formed and one "master" was removed - that was the KDHE. Do we need additional punitive legislation? I think not! We have not been pleased with automatic non-hearing fines as imposed by the KCC but have been able to work within the parameters established by the KCC and approved by the appropriate legislative committees. This bill will allow more of the same, again without definition.

Definitions as established by this bill are so broad as to only

(continued next page)

SENATE BILL NO. 455 March 16, 1988

establish an absolute morass of regulation. An example is the responsibility stated in sec 2(i) "the owner/operator knew or should have known....." -. This allows that all operators are automatically expert chemists and that they have analyzed all of the elements they are exposed to and know exactly what the reaction will be within a situation framework. I say HOGWASH! The Secretary would have authority to seize property without establishing legality outside of one man's opinion. Then he may (not shall) pay for property taken at the "Secretary's discretion". There are no contaminant definitions - how will we know if we might be in violation when the rules are not definitive - certainly NOT THE STATUTE!

We are promised rules in one year- are they already written? We are told that the KDHE is attempting a letter agreement - we do not yet have a bill passed - hopefully, it is not in a final format - it seems this Secretary is of the opinion that this bill will flit through this Committee in its present form, like a fly going through a screen door.

Should you feel the need to pass a bill with so many unanswered questions, I hope you remember that the KCC has done a good job in policing our industry and please amend this bill so that we will not again serve two masters.

PLEASE TABLE THIS BILL.

Thank you for the opportunity to appear before you.

EASTERN KANSAS OIL & GAS ASSOCIATION, INC.

Barney E. Sullivan

Barney E. Sullivan
Executive Director

BES:je

Testimony on SB 455
to
House Committee on Energy and Natural Resources
March 16, 1988
by
Vernon McKinzie, Kansas Termite and Pest Control Association

Mr. Chairman, members of the committee; thank you for the opportunity to appear before you today. My name is Vernon McKinzie. I am a pest control businessman from Emporia. I appear before you today as the legislative chairman of the Kansas Termite and Pest Control Association to present our concerns about SB 455.

At the March 4, 1988 meeting of our Association we had 31 members respond to a survey of how many pesticide applications they perform in a year. We learned they were responsible for over 175,000 treatments to structures. There are about 400 licensees in structural pest control in the state. A simple extrapolation will indicate our industry performs over 2¼ million services annually in the state of Kansas.

Our industry recognizes the need to protect the environment. We, in fact, contribute to improvement of the environment because we provide essential services to protect health and property against pests. Our people are certified and/or verifiably trained to provide consumers with competent applicators who do their work safely and effectively. We oppose the position of the toxo-terrorists who would ignore risk-benefit ratios and would have everyone believe that all chemicals are harmful, even in small amounts.

We want clean air, water and food for ourselves and our families, and support the concept of SB 455.

We offered testimony on this bill in the Senate committee and appreciate their response to our concerns. The amended form of the bill, in our opinion, is an improvement over the original draft. We continue to have some concerns, however.

We are apprehensive about the definitions as found on lines 91-112. We believe the phrase "or should have known" is vague and allows for subjective interpretation rather than objective interpretation.

Is it the intent to make every property owner subject to a costly evaluation to determine whether or not the site is, or has been, contaminated? What if technology changes and provides detection capabilites in the future that are unknown now. Should all properties be examined now to establish the responsible person? If a business property is sold and future technology enables someone to detect residues resulting in it being defined as a "contaminated site" which owner will be the responsible party? If a pesticide application on another persons property is performed and future technology enables detection and results in a "contaminated site", who is the responsible

(continued)

party? Who should have known? How can they find out?

We have strong objections to the law being made retroactive to cover any "act or omission whether occurring before or after the effective date of this act," ... We respectfully request you carefully consider the ramifications of such a statement, as it relates to responsible party.

As an illustration, I offer the fact that over the past two decades, over 20 million pesticide applications have been made by our industry alone in the state. These applications were made in accordance with state of the art procedures and regulations of their time. In many cases of termiticide applications, the pesticide applied remains as it was placed in the soil. Changing technology, additional research, and current testing methods of today make it possible and prudent to detect substances in amounts we were unaware of twenty years ago. We are alarmed to think that work we did ten or fifteen years ago, or even yesterday, in accordance with state of the art technology could result in a "contaminated site". I submit the question, who will be the final determining judge of the phrase "should have known". Should we have known? How can we know today what the technology of the future will bring?

Are there any questions?

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

1987 REPORT ON CONTAMINATION SITES IN KANSAS

Site Inventory, Rankings, Remediation Activities

Prepared by
the Bureau of Environmental Remediation
Kansas Department of Health and Environment
Forbes Field
Topeka, Kansas 66620-7500
(913) 862-9360

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STATEMENT OF PURPOSE

This report has been prepared to provide policy makers and citizens with fundamental information about the quality of the Kansas environment. While the condition of this state's environment continues to be quite good, we have detected many isolated pockets of contamination. The current inventory includes 332 sites where contamination has placed Kansas soil, surface water, or groundwater in jeopardy. Understanding the extent and nature of contamination in this state is a critical element in meeting our long-held commitment to preserve and, when necessary, restore Kansas natural resources.

BACKGROUND

In 1976, faced with a growing menace of improper hazardous waste disposal, Congress passed the Resource Conservation and Recovery Act (RCRA). The heart of RCRA is the control of hazardous wastes from the time they are generated until they are properly disposed---the so-called "cradle to the grave" management of hazardous wastes. Hazardous substances are toxic, corrosive, ignitable or chemically-reactive materials, thereby posing a threat to human health. RCRA does not address contamination from past disposal practices or their cleanup.

As Congress came to the realization that there were literally thousands of sites across the nation which were already contaminated and would pose potential serious hazards to the public health and the environment, it passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)---commonly known as "Superfund." Congress created a trust fund of $1.6 billion to finance the removal, cleanup and remediation of hazardous waste sites. Funds came primarily from a tax on manufacturers of petrochemicals, feedstocks and organic chemicals, and on crude oil importers. About 14 percent come from general federal revenues. The Act placed the liability for cleaning up sites and for other restoration upon those parties responsible for release of the hazardous substances. EPA now estimates there may be as many as 20,000 sites nationwide which require cleanup under the Federal Superfund.

The original CERCLA Legislation had a life of five years. In October 1986, after many months of discussion and debate, Congress expanded the program by $9 billion over a five-year period. The reauthorization provides increased health protection for those who live near sites and increased opportunities for the public to take part in the remediation decisions.

New authority and funding under CERCLA is also provided for cleaning up contamination from leaking underground gasoline or chemical storage tanks; creation of emergency planning districts; and community right-to-know provisions concerning chemical hazards from local manufacturing plants. One important facet of the Superfund reauthorization requires states wishing to be eligible for Superfund monies to guarantee the availablility after 1989 of disposal or treatment facilities for all wastes reasonably expected to be generated within the state during the following twenty years. Facilities can be within or outside the state, but must be acceptable to EPA.

The Kansas Legislature has also passed or amended a number of statutes focusing on hazardous waste management. In some cases the Kansas Legislature took a more progressive position than did the Congress, such as the Kansas prohibition against underground burial of hazardous waste, and the phased-in regulation of generators of small quantities of hazardous waste. The Hazardous Waste Cleanup Fund was established to enable the state to clean up hazardous waste contamination where a responsible party could not be found or was unwilling to undertake the cleanup. The statute specified that cost recovery action would be taken against responsible parties for state remedial expenditures.

In keeping with the Congressional and Legislative lead in focusing greater attention on remediation activities, KDHE's Division of Environment recently formed a Bureau of Environmental Remediation, which is responsible for:

1. Spill response;

2. Coordination with KCC on complaints and environmental remediation;

3. Pollution field investigation (soil and groundwater); and

4. Management of long-term contamination through control, containment or clean up.

It is further hoped that the new bureau can improve the efficiency and effectiveness of these programs by:

Providing a single point of contact between responsible parties, interested members of the public, the regulated community, and industry;

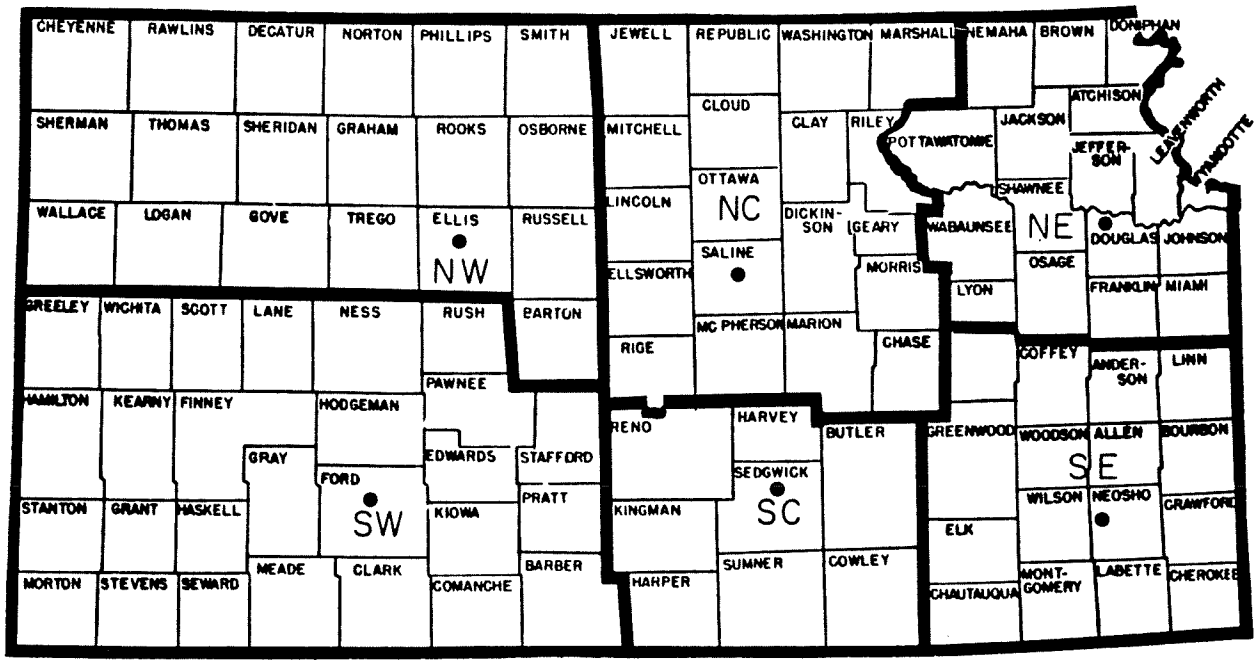
Providing clear internal accountability for KDHE's remedial activities;

Developing a central pool of expertise in areas of remediation planning and execution;

Developing remediation-related legal expertise; and

Developing a system to rank contaminated sites.

1987
INVENTORY OF
CONTAMINATED SITES
IN KANSAS



1987
CONTAMINATION - SITE INVENTORY

STATEWIDE

CONTAMINANT

AFFECTED MEDIA	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	49	75	49	14	22	24	233
S	1			2		3	6
GW/SW	5	20	3	3		4	35
GW/S	6		7	10	1	9	33
GW/S/SW	5	1	3	3		7	19
SW	1	5					6
Total	67	101	62	32	23	47	332

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION SITE INVENTORY
NORTHWEST DISTRICT

CONTAMINANT

AFFECTED MEDIA

	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	8	44	8		4	2	66
S	1						1
GW/SW	1	11		1			13
GW/S				1	1		2
GW/S/SW		1					1
SW		3					3
Total	10	59	8	2	5	2	86

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION-SITE INVENTORY
NORTHCENTRAL DISTRICT

CONTAMINANT

AFFECTED MEDIA

	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	8	3	7		5		23
S							0
GW/SW	1	4			1		6
GW/S				4	5		9
GW/S/SW	1					1	2
SW	1						1
Total	11	7	7	4	11	1	41

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION-SITE INVENTORY
NORTHEAST DISTRICT

CONTAMINANT

AFFECTED MEDIA	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	11	2	9	5	6	8	41
S				2		2	4
GW/SW				1			1
GW/S	1		2	2			5
GW/S/SW	2		1	1		1	5
SW							0
Total	14	2	12	11	6	11	56

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION - SITE INVENTORY
SOUTHWEST DISTRICT

CONTAMINANT

AFFECTED MEDIA	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	5	17	5	4	2	2	35
S							0
GW/SW			1			1	2
GW/S	1						1
GW/S/SW						1	1
SW							0
Total	6	17	6	4	2	4	39

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION - SITE INVENTORY
SOUTHCENTRAL DISTRICT

CONTAMINANT

AFFECTED MEDIA	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	15	7	18	3	7	4	54
S							0
GW/SW	2		2			1	5
GW/S	1		3			3	7
GW/S/SW	1		2			2	5
SW		1					1
Total	19	8	25	3	7	10	72

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

1987
CONTAMINATION - SITE INVENTORY
SOUTHEAST DISTRICT

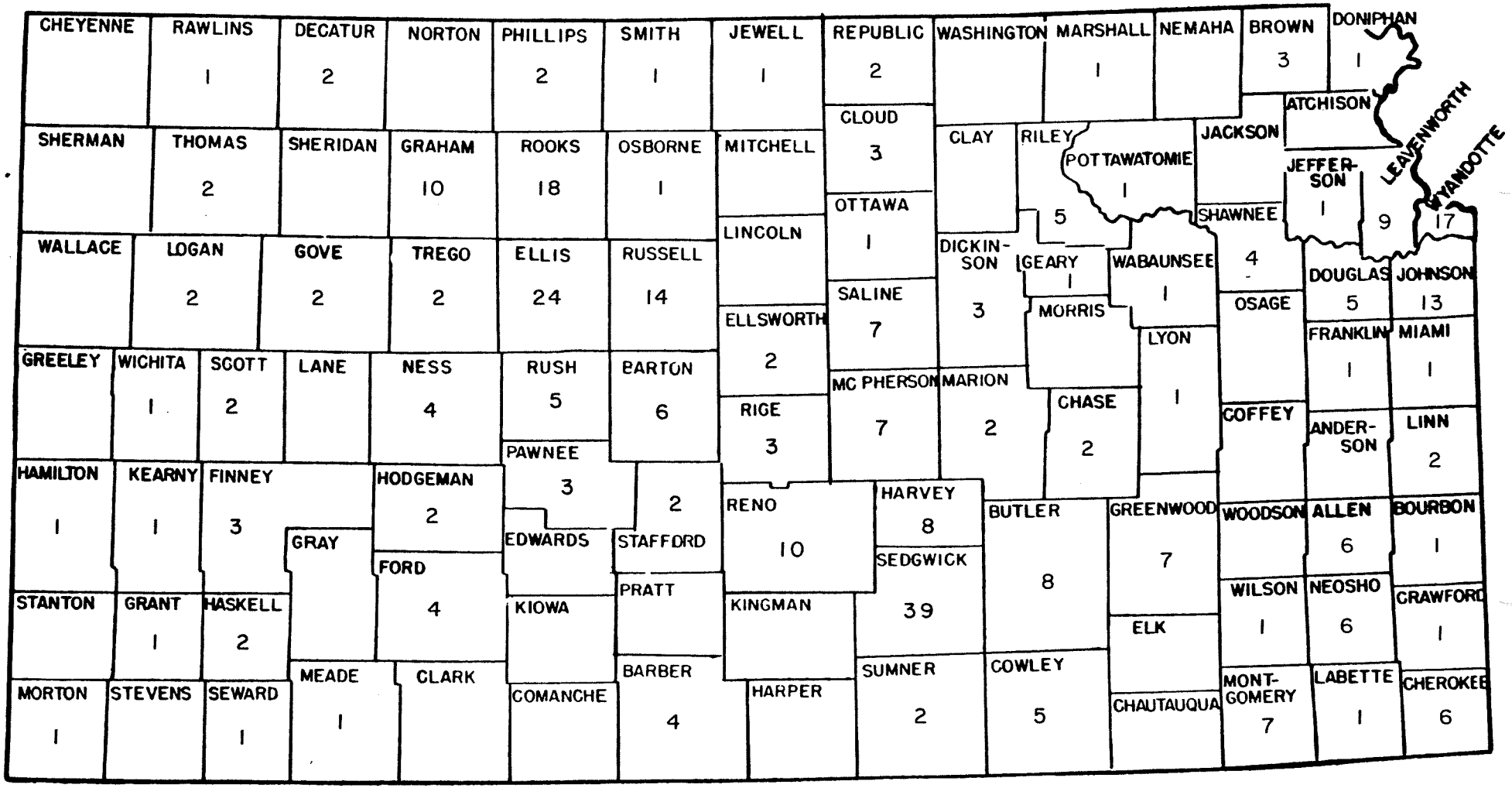
CONTAMINANT

AFFECTED MEDIA

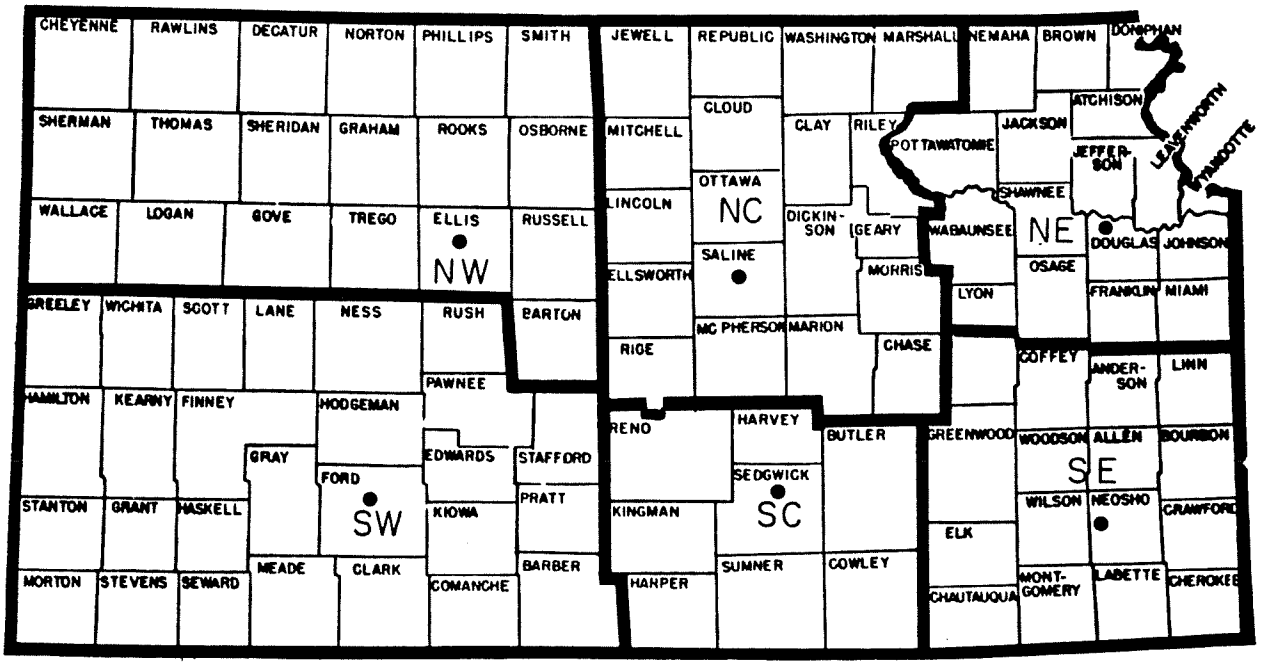
	Petroleum	Saltwater	VOC's	Metals	Pesticide	Misc.	Total
GW	2	2	2	2		8	16
S						1	1
GW/SW	1	5		1		1	8
GW/S	3		2	3			8
GW/S/SW	1			2		1	4
SW		1					1
Total	7	8	4	8	0	11	38

GW = Groundwater
SW = Surface water
S = Soil
VOC = Volatile Organic Chemicals

NUMBER OF CONTAMINATED SITES BY COUNTY
KANSAS, 1987



1987
RANKING OF
CONTAMINATED SITES
BY DISTRICT



SITE RANKING METHODOLOGY

Allocating limited site investigation resources has fostered a need for an objective system of ranking contamination sites. KDHE has designed a preliminary site-ranking system to provide reproducibile results, independent of the user and the user's expertise. The preliminary system is designed to be used only as a screening tool, and only to obtain the relative ranking of contamination site for appropriate action. This system does not dictate the type of response which should be made nor is it a substitute for a detailed site investigation. This preliminary system evaluates sites based upon information which is readily available and can describe the contamination site in general terms. Appropriate response actions will be determined by administrative decisions.

The ranking of a contamination site relative to other sites is determined by evaluating eight categories of site information. These categories are: use of resource (U), distance to point of exposure (D), number of public water supplies (N), contaminant type of relative concentration (C), aquifer vulnerability to further contamination (V), population density (P), environmental effects (E), and availability of groundwater (A). Each category is divided into ranges of values, and each range is assigned a rating. The higher the rating, the greater the priority for action. The user of the system selects the range which best describes the site characteristics.

Each category is assigned a weighting factor (W_f) relative to the other categories. The greater the weight, the greater the relative importance of the category. Weights have been assigned to each category based upon recommendations by KDHE staff. The weights are not variable; they are constant from site to site. The following table illustrates the categories and the weights and ratings assigned to each category.

CATEGORY	RATING	WEIGHT
Use	0-4	4
Distance	0-4	3
Number of Water Supplies	0-4	3
Contaminant	0-3	5
Vulnerability	0-5	2
Population	0-4	1
Environment	0-4	1
Availability	0-4	2

After the appropriate ranges and ratings for each category have been determined, the user multiplies the rating by the weight for each category. The sum of the weighted ratings is the priority ranking nubmer (PRN). It is the PRN which is used to determine the ranking of a contamination site. The following equation illustrates the calculation of the PRN.

$$PRN = U \times W_u + D \times W_d + N \times W_n + C \times W_c + V \times W_v + P \times W_p + E \times W_e + A \times W_a$$

EXAMPLE

The application of the ranking system is illustrated in the following hypothetical example. A volatile organic chemical was detected in a public water supply well at concentrations exceeding current state action levels (KAL). The well is located in section 10, one-half mile from the city's other public water supply well in section 11. The contaminated well obtains water from an unconfined aquifer 50 feet deep, consisting mostly of alluvial unconsolidated materials. The aquifer is generally capable of yielding between 600 and 700 gpm. The land surface is rolling with an average slope of less than five percent. The county population density is 64 persons per square mile. A river passes through sections 2, 3 and 4. No threatened or endangered species have ever been observed in this river, but the river is considered a moderate priority fishery.

The evaluation would give the following results.

CATEGORY	RATING	WEIGHT	RANKING
Use	4	4	16
Distance	4	3	12
Water Supplies	1	3	3
Contaminant	2	5	10
Vulnerability	4	2	8
Population	3	1	3
Environment	2	1	2
Availability	3	2	6

$$PRN = U \times W_u + D \times W_d + N \times W_n - C \times W_c + V \times W_v + P \times W_p + E \times W_e + A \times W_a$$

$$PRN = 4x4 + 4x3 + 1x3 + 2x5 + 4x2 + 3x1 + 2x1 + 3x2$$

$$PRN = 60$$

By itself, the priority ranking number gives no indication of the severity of the problem. The PRN is useful only to compare to other PRNs to determine the contamination site's relative ranking. All sites would need to be evaluated according to the above categories to provide a basis for comparison.

It is important to remember that the site ranking system used to prepare this report is preliminary. On the basis of experience, KDHE will refine and improve the preliminary system for further use.

NORTHWEST DISTRICT CONTAMINATED SITES LIST

01-Jan-80

RD CO.	NAME	CONTAMINANT	SOURCE	STATUS	COST TO RESTORE x $1000	PRB	DIST RANK	PROB TYPE	PROB MODE
6	TH Ace Services Colby SE 31-7S-33W	chrome	ponds	Plant closed 1980; withdrawal well installed. Wastewater treated. Negotiations under on municipal well.		66	2	C	GW/S
3	PL Agra PWS Wells 3,4; NW,SW,SE 27-3S-16W	CCl4 ?	unknown	Investigation needed. Well in service and periodic resampling to be conducted.		67	23	C	GW
3	OB Alton PWS well #1 1-7-15W	petroleum	(PST leak)	Well contains petroleum products. City has drilled a new well.		67	23	C	GW
5	BL Andrew Dusinger 13-15-19W	salt water	tank battery	Trench dug but recovered very little brine.	UK	23	71	P	GW
5	BL Antonino Water supply wells NW 1-15-15W	brine	disposal ponds	Wells contaminated by saltwater ponds in use prior to 1959. Studied in 1960. Water district formed. 40 acres affected.	200	46	28	C	GW
5	RO APCO Service Station; 35-9-18W	gasoline	PST leak	Occasional EDBE monitoring.		67	23	C	GW
3	GR Bogue Area 34-8-21W	chloride	oil field	Needs further investigation.	UK	46	28	C	GW
3	GW Bogue PWS well #2 17-8-21W	petroleum	PST leak	Well no longer used.		49	21	C	GW
5	TR Braun/Wynn 36-12-22W Ogallah	chloride		Investigation in progress.	UK	35	58	C	GW
3	RO Carl Bilgens NE 13-9-19W	brine	disposal	Well plugged. Overflows corrected.	100	31	65	C	GW
5	BL Cecilia Breiling Victoria	chlordane	exterminator	Private well contaminated after application of pest control. New well considered.		45	32	C	GW
5	RO Codell Area 2,3,10,11,13-10-17W	chloride	oil field activity	Needs updated monitoring data. Several water wells in drianage. Over 200 acres affected.	600	43	37	C	GW
3	PL CRA, Inc. Phillipsburg SW,NE 27-3S-18W		sludge pond	Remove and reclain product. Continued PRP monitoring.		45	32	C	GW
5	BL Cross Manufacturing Company	chrome	disposals pit	Chrome pile excavated and removed.		55	12	C-P	S-GW
5	BS Dennis Dunler Russell NW 27-13-14W	brine	disposal wells	Two unplugged abandoned wells found. Affects City of Russell.	2100	43	37	C	GW
5	BL Doris Long SE 6-14-17W	chlorides	unknown	High chlorides in private well. Drill pits over shallow sand may be cause. Need further investigation.	30	31	65	C	GW
5	BL Doug Phillip Hays SW 9-15-17W	brine	disposal well	Disposal well was backflowed until pressure eliminated, pumped for 2-3 years, and plugged. Affected deep aquifer.	1000	15	74	P	GW
8	BT Dresser Industries Great Bend SWSWSE 27-19-13W		impoundment	Sample from drinking water well showed no contamination.		62	5	P	GW
5	BL Ellis Co. Feeders Hays, KS 11-13-16	nitrates	feedlot	Leaching from lagoon into limestone formation. Contaminated well and seven others were plugged.		0	-	-	-
5	BL Ellis PWS wells #1,#2 NW,NW,NE 8-13S-20W	dichloroethane	PST leak	#2 well removed from service 8/81. #1 well in service periodic resampling to be done by KDHE.		53	14	C	GW
3	GR Eugene Johson SW 7-8-22W	chloride	unknown	Isolated contamination, not detected in surroundings.	UK	38	51	C	GW
5	RS Everett Dortland NW 5-16-15W SW 9-16-15W	chloride	disposal well?	Tested samples from spring and stock well. Source may be shallow disposal well plugged years ago.		27	68	C	GW
5	RS Fairport Sta. SW 4-12-15W	petroleum	pipeline leak	Oil being recovered. Alluvial aquifer.		32	64	C	GW-SW
5	BL Fell Oil & Gas, Tank Battery SE 13-11-17W	chlorides	brine tank	Shallow aquifer seeps from hillside; contaminated water recovered in trenches.		38	51	C	GW-SW
3	RO Foster Shepard 22,25,26-10-18W	brine	old pond	Taking precautions with new potential source.	20	36	55	C	GW
5	TR Frank Schneller 25-13-21W	chlorides	oil field	Pond and well contaminated. Considering new well.	UK	21	72	C-P	SWGW
5	BL Frank Werth NE 33-12-18W	brine	pits, disposal well	Springs in area carrying chlorides to surface. Input wells tested.	300	9	78	C	GW
3	GR Fred Keith 32-8-24W	chloride	oil & leases	Leases improvements needed.	UK	40	47	C	GW
5	GW Gil Balthozor 13,14,23,24-9-21W	brine	oil field	Flowing seep. Brine lines tested. MITs on injection wells. Monitoring continues. affects more than 400 acres.	1500	45	32	C	SW-GW
3	GR Graham County unknown NE 1-8-22W	brine	disposal well	Irrigation well contaminated. Disposal well plugged. New water well drilled.	UK	43	37	C	GW
5	BT Great Bend unnamed SE 18-19-13W	brine	unknown old well?	35,000 ppm Cl water entering alluvial material discovered during investigation. Underlies roadway.	35	58	18	C-P	SW-GW
3	RO Griebel, Foster Ray, domestic wells 9,15,22,23 7-19W	chloride	pits	Partial closure of pits	80	44	36	C	GW
5	LG Harry Unruh 6-13-33W	chloride	oil field	Investigation pending.	UK	13	76	C	GW
5	BL Hays PWS 28,27,26;SE,SE 33;SE,NE 4;SW,SW) of R13S-R18W	dichloroethane	various spills	No VOC detected in PWS after treatment. Some private wells have been closed, hooked to city supply.		59	7	C	GW
8	BT Henry Burmeister 2-17-11W	salt water		MIT requested on disposal well.	UK	9	78	C	SW
3	TH High Plains Chem.(Schmitt Bros)Benle SW,SE,NE 13-8S-31W	pesticides	storage and use	Waste removed. Investigation needed.		47	23	C	GW-S
4	DC Jennings PWS well 19-4-26D 24-4-27W	brine	oil field	Oil field pollution has contaminated PWS well. No longer used.	30	57	9	C	GW
5	BL Jim Dinkel Well, Box 15 Victoria 32-13-17W	brine	oil field	Oil field activity within area. Extensive chloride contamination. Uses bottled water.	UK	43	37	C	SW-GW
5	BL Jim Maxwell Hays SW 34-14-18W	chlorides	unknown	Disposal well passed MIT. Surface seep from alluvial materials.	50	24	78	C	SW
5	BL John Krause 9-14-19W	salt water	improper plugged well	Need to replug well.	UK	12	77	P	GW
5	RS KDOT I-70 3-14-15W	salt water		Sink investigation and cementing complete; no movement in 3 months; continue to monitor.	UK	30	67	C	GW
5	RS KDOT I-70 Crawford 2-14-15W	saltwater		I-70 sinking about half a foot per year.	UK	40	47	C	GW
5	RS Keir 14-15-13W	salt water	unknown	Salt water in drainage way. MIT performed, brine source unknown.	UK	26	69	C-P	SW-GW
3	SW Kensington PWS well #1 SE,SW,SE,NE 29-3S-15W	dichloroethane	unknown	Well out of service. Used for bulk hauling.		52	14	C	GW
6	BT Larry Panning 2-20-11W Ellinwood	saltwater		Sink/collapse area; monitored infrequently.	UK	41	43	P	GW

GW = Groundwater SW = Surface Water
S = Soil DW = Direct Contact P = Potential for Contamination
PRB = Priority Ranking Number C = Contaminated

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RB CO.	NAME	CONTAMINANT	SOURCE	STATUS	COST TO RESTORE x $1000	PRI	DIST	PROB TYPE	PROB MODE
3 RO	Lotus Area Several landowners 3,4,5,6-9-16W	chloride	oil field	NIT's are requested on disposal wells.	UK	40	47	P	GW
5 RS	Leland Rose SW 22-14-14W	brine	line leaks	Lease completely investigated. Lines and inputs tested.	80	41	43	C	GW
5 EL	Leo Strunel Pfeifer 35-15-17W	saltwater		Saltwater in private well.	UK	50	0	C	GW
5 EL	Leon Binkel Victoria 16-14-17W	saltwater	oil field	Found alternative water source.	800	37	53	C	GW
3 GR	Leon Fink stockwell NE 27-8-22W & 27-08-22W	brine	well	PRP ran well logs 1980. KDHE monitoring.	400	41	43	C	GW
5 RO	Lee Wittman 24-14-15W	saltwater	drill pits	KDHE determined source of contamination in fall 1985. Drill pits need to be removed.	50	41	43	C	GW
5 RS	Louis Sander 3-16-15W	chlorides	unknown	Field investigation in progress.		33	61	C-P	SW-GW
5 EL	Marcellus Gross, Hays NE 18-15-17W	brine	emergency pit	2450 ppm Cl at depth of 3 ft. Pit eliminated by KDHE. Affects one acre.	5	36	55	P	GW
3 RO	Mary Marcotte SE19-9-19W	chloride	drainage	NIT's on disposal wells. Known leaks corrected. Private water well.	20	37	53	P	GW
5 EL	Matador Pipeline SE 31-11-17W	petroleum	pipeline leak	Observation holes installed, oil recovered from ditches.		15	74	C	S
4 RS	McDonald, McDonald, KS 21-3-36W	nitrates	cesspool	City is in process of installing municipal waste-water lagoon to eliminate use of cesspools.		53	13	C	GW
5 RO	Melvin Keller 29,30,31,32-10-20W	brine	over flows	Monitoring NIT done on well. Overflow problem corrected.	30	0	-	-	-
3 GR	Mulberry St. area, Hill City 13-8-23W	chloride	PST leak	Five wells affected. Monitoring. Pumping for irrigation.		60	6	C	GW
5 EL	Nielson Sinkhole SW 28-11-16W	brine	natural	Attempted pumping in 1978. KGS monitoring and measured in 1988. KDHE monitoring.	250	46	38	C	GW
5 LG	Oakley PWS well #11 SE,SE,SW,NW 2-11S-32W	benzene	unknown	Well in service. Periodic resampling; investigation needed.		57	9	C	GW
5 RS	Ohmar Oil Company 23-14-13W	salt water	tank battery	Tank removed and replaced.	UK	0	-	-	-
3 RO	Orville Garver, Hotony SW 12-9-16E	brine	disposal	No action by landowner. Spent (PRP) $200,000 on cleaning up lease.	500	36	55	C	GW
3 RO	Pat Irey-Hrabe Area 1,12-9-17W	brine	brine disposal well	Some NITs done. Disposal well repaired. Over 300 acres affected.	1000	40	47	C	SW-GW
4 PC	Paul Bremer 3,4,5,6-3-29W	chloride	oil gas field	Faulty disposal well removed. Ponds redone and fluid removed.	UK	0	-	-	-
5 RO	Peavey, Houry, Vine and Bates Wells 16,21,28,33-10-18W	brine	oil field activity	NIT's on wells and lines. Seasonal variation in Cl 100 to 1700 ppm.		43	41	C	GW
5 EL	Pepsi Cola Bottling: Hays SE,SE 3-14S-18W	VOC	pipe leak	Water pumped to waste. VOC detected in recent sampling.		68	1	C	GW
6 RT	Phillips 66 and others Great Bend 29-19-13W	gasoline	PST leak	Some gasoline recovered at Phillips 66. Scattered contamination west of Main Street.		65	6	C	GW
3 RO	Plainsville 35-9-18W	gasoline	unknown	Complaint from several landowners. Needs further investigation.		48	33	C	GW
3 RO	Plainsville PWS #1 SESWNWW 35-9-18W	CCl4	unknown	Well #1 disconnected from public water supply, not used for water supply.		57	9	C	GW
5 GO	Plum Creek area 32-14-29W	chloride	injection well	Well plugged in 1985. Needs further investigation.	UK	17	73	P	GW
5 GO	Quinter Coop Fire	pesticides	fire	Cleaned up. Area needs to be monitored.		0	-	-	-
5 EL	Ranada Inn Hays NE 28-13-18W	VOC	PST leak	Recovered petroleum 10/78. VOC still detected.		52	14	C	GW
3 GR	Richmeier S/2 16-9-25W	brine	ponds	PRP plugged injection well. KDHE monitored. Affect 2 miles along Solomon River.	850	45	33	C	GW
5 RS	Russell RUD #134-14-16W	brine	unknown	Needs investigation to determine source.	10	52	14	C	GW
5 EL	R.J. Zimmerman SE35-15-19W ALSO 2-16-19W	saltwater	disposal well	Disposal well tested. Affected well water disposed of at another well.	5(invest)	34	68	C	SW
3 RO	Scattered Rooks County 6-19-17W and to S. Fork Solomon	brine	ponds, etc.	Alluvium along Elm Creek polluted. Increased efforts to perform NIT.	4000	33	61	C-P	SW-GW
3 RO	Schruben 18-7-17W	chloride		Same as Stockton.	1000	-	-	-	-
13 EL	Short Stop 13th and Canterbury Hays 2-13-18W		PST leak	Leaking tank contaminated well at Hays Bowl and Pro shop. Connected to city water.		50	18	P	GW
3 RO	Simons, Stockton 26-7-17W	Chloride	oil field	Oil leases monitored.	UK	33	61	P	GW
3 RO	Stockton 23,24 7-18W	chloride	road salt	Road salt in snow probably source. Chlorides up to 500 ppm.		66	3	P	GW
5 RS	Tittle Lease Unnamed soap SE 16-15-16W	brine	unplugged well	KCC will plug well. Cedar Hills probable source.	150	50	18	C-P	SW-GW
5 RO	Ton Houser NW 8-10-17	brine	dumping	Landowner drilling test holes to follow pollution.	40	43	41	C	GW
5 RS	Trapp Oil Co. 11-14-15E	salt water	flowing abond well	Well has been plugged, still under investigation.	UK	0	-	-	-
5 RS	Vernon Shaffer NW 18-11-13W	brine	drillpit	Will not allow access to property. Water samples taken.	UK	47	33	C	GW
3 GR	Wilbur Stites 14-9-22W	brine&toluene	unknown	Drilled new well.	UK	35	56	C	GW
5 EL	William Burr Complt. Hays 27-18-13		PST leak	Investigation needed.		46	38	C	GW

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S = Soil RB = River Basins P = Potential for Contamination
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NORTHCENTRAL DISTRICT CONTAMINATED SITES LIST

16-Oct-86

RB	CO	NAME	CONTAMINANT	SOURCE	STATUS	COST TO RESTORE x $1000	PRB	DIST RANK	PROB TYPE	PROB MODE
5	DK	Abilene PWS Well #8 SW,NE,NE,SW 17-13-2E	TCE ? ?	unknown	Well removed from service. Investigation potential source.		59	7	C	GW
8	RC	American Salt Lyons T20S-R7,8W	brine	grainier pans	Installation of monitoring wells by PRP. Interceptor well in operation.		56	11	C	GW,SW
11	LT	Atchison,Topeka & Santa Fe RR Emporia SE,NW16-19S-11E	pipe leak		PRP plan for recovery of product in effect.		48	23	P	GW
2	MS	Axtell PWS #2 NENWSWNW 24-02-10E	1,2-dichloroethane	unknown	City is considering the construction of an additional well.		47	25	C	GW
8	RC	Brother's Lease NE 12-21-7W	brine	reserve pits	Attempted to pump out contaminated farm pond. KDHE requested contaminated soil be removed. Affect 6 acres.	22	45	30	C-P	SW-GW
8	HP	Burns well Conway SE 24-19-5W	brine	brine reservoir	Burns well plugged, now on city water.	UK	0	-	-	-
11	CS	Burton Buchman well, Burdick No.NE 13-18-6E	brine	line leak	Stored brine removed. Rains flushed aquifer. Samples at 50 ppm 10/20/81.	UK	0	-	-	-
8	RC	Bushton Grain & Elevator Chase 32-19-9W	nitrate	spill	Remove contaminated soil and water. Resolved.		0	-	-	-
5	HP	Columbia Industires Linsborg 17-17-3W	heavy metals	facility discharge	Contaminated soil removed.		47	25	C-P	S-GW
2	CD	Concordia PWS well #17 SE,SE,NE 33-5S-3W	1,2 dichloroethane	unknown	Well out of service. Potential sources located.		64	3	C	GW
8	HP	Conway, City of T19S-R4W	LPG	storage reservoirs	PRP monitoring. Water wells no longer used.		46	29	C	GW
2	RL	Deines Complaint Riley NW,SW 1-9S-5E		PST leak	Pumped to waste. Continued KDHE monitoring.		53	16	C	GW
5	SW	Ellsworth PWS well 4;	PCE	unknown	Investigation and resampling needed.		61	5	C	GW
5	SA	Exline Salina SW,NE,NW 16-14S-2W	chrome	pond	PRP remedial action (inc. withdrawal). Pond closed.		59	7	C	GW,S
8	HP	Payne Beattie well, Conway NE,NW 32-19-6W	brine	brine reservoir	Well pumped as relief well. Minimal groundwater available. Monitoring.	UK	45	30	C	GW
2	RP	Pine Truck Stop Belleville SE,NW 3-3-3W	gasoline	pipe line	27,000 gasoline lost 3/82. No recovery or monitoring.		26	35	P	GW
8	HP	Galva PWS well #4 NE,SE,SE,NE 21-19-2W	CCl4	unknown	Well removed from service. Observation wells drilled.		55	14	C	GW
3	CD	Glasco PWS well #2 13,14-8-5	CCl4	unknown	Well out of service. Water purchased from RWD #3.		50	20	C	GW
5	GE	Grandview Plaza PWS #3, #4 SESENENE 5-12-6E	CCL4	unknown	Both wells have been out of service, city constructing a replacemnt well		64	3	C	GW
8	HP	Herb Tillock Galva SE 21-19-2W	chloride	oilfield activity	Began investigation 5/7/86, 1400 ppm Cl.	24	47	25	C	GW
11	MH	Hillsboro Industries Hillsboro SWNWW 35-19-2E	metals	waste water discharge	Samples collected.		53	16	C	S,SW
5	DK	Hope PWS SWNENWW 02-16-03E	CCl4	unknown	City well taken out of service except in case of emergency.		59	7	C	GW
8	RW	HTI 31-17-9W Bushton	brine	pits	Contaminant isolated by pumping. Consultant modeling system. Monitoring.		48	23	C	GW,SW
11	CS	H.L. Roberts Fish Ponds, Strong City 16-19-8E	diesel fuel	spill	Cleanup of original spill in 1983. Still monitoring surface water/soils.		51	18	C,P	SW,GW
8	HP	J-R Grain Co. Courtland NE,NW,NE 20-3-5W	herbicides	uncertain	Dewatering well contained low level herbicides 2/10/86. Owner advised not to consume well water.		51	18	C	GW,SW
12	OT	Kaneb Pipeline 34-9-3W	fuel oil	spill	Recovered approx. One third of product. Rechecked cleanup.		0	-	-	-
2	RL	Kans State Univ. Manhattan 11?-10-7E	radioactive materials	burial storage	Monitoring/sampling RCRA closure plan.		58	10	P	GW,S
8	HP	McPherson PWS wells #4,#2 #5 NE,NE,SW,NE 29-20-3W	PCE	unknown	Well #5 out of service. Well #2 in service. Periodic resampling to occur.		61	5	C	GW
2	CD	Miltonvale Landfill 21-8-1W	refuse	landfill	Initial investigation wells drilled and monitored.		43	33	P	GW,S
11	MH	Mowat well NW,SW 25-1S-4E	natural gas	gas well	Detected 12/81. Plugged nearby gas well. Gas detected occasionally.		39	34	C	GW
2	RL	Oberhelmann Complaint 316 S. Broadway Riley S/2 1-9-5E	petroleum	PST leak	Limited attempts at cleanup (e.g. pump to waste).		56	11	P	GW
2	JW	Randall PWS well 2 (standby)	CCl4	unknown	Investigation needed. Two samples exceeded MAL.		49	21	C	GW
2	RL	Riley County Landfill Manhattan S/2 NE 36-10S-7E	benzene	landfill	Survey and monitoring by KDHE ongoing.		49	21	C	GW
2	RL	Riley Co. Asphalt Plant, 31-10-8E	diesel fuel	holding ponds	County reported (1986) fuel had to be removed from holding pond.		47	25	C	SW
5	SA	Roof Farm 5-13-1E	PCB	storage site	Sampling and wells.		56	11	C-P	S-GW
5	SA	Salina Co., Landfill 7-15-3W	metals	landfill	Preliminary site investigation.		14	36	P	GW,S
5	SA	Salina PWS wells SW 13-14-3W	PCE & others	unknown	Wells in service, variety of VOC detected. Confirmation needed. Resampling needed.		68	1	C	GW
5	SA	Solomon Electric supply Solomon 26?-13-1E	PCB	salvage yard	Consent order issude by EPA.		65	2	C-P	S-GW
5	DK	Stuckey's Talmage SE 12-13-21E	spills		Cleanup completed. Undetected in analysis of samples.		0	-	-	-
5	SA	Swisher well Gypsum No 8-16-1W	brine	oilfield activities	Test holes drilled on 8/82.	15	45	30	C	GW
5	SA	Wilgus well Salina NW,NW 20-14-2W	brine	oilfield activity	Extensively studied 1984 by KDHE. Recommended test holes be drilled in area. Affected 30 acres.	100	55	14	C	GW

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S = Soil RW = River Bosque P = Potential for Contamination
PRB = Priority Ranking Number C = Contaminated

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NORTHEAST DISTRICT CONTAMINATED SITES LIST page 1
15-Oct-86

RD Co.	Name	Contaminant	Source	Status	COST TO RESTORE x $ 1000	PRB	DIST RANK	PROB TYPE	PROB MODE
1 WY	Arco Petroleum Kansas City 20-11-25E	petroleum products	refinery wastes	Pre NPL investigation 1986.	95	-	16	C	GW,SW,S
1 WY	Assoc. Wholesale Groceries, Inc. Kansas City KS SE13-11S-24E	petroleum	PST leak	Recovery well in operation. Air stripping of volatiles.	95	-	16	C	GW
1 JO	AT&SF Holliday 1-12-23E	petroleum	spill	No apparent follow up.	52	-	22	P	GW,SW,S
2 SN	AT&SF Topeka 33-11-16E	phenols and metals	sludge	Monitoring.	47	-	29	C	S
1 DF	Bendena RUD #2 PWS well 1 NE,SW,SE 33-03S-20E	CCL4	unknown	Engineer hired to locate new source. Single source.	52	-	22	C	GW
2 WY	BPU, Quindaro Kansas City KS28-10-25E		pipe	Site excavated, product recovered, source repaired. PRP monitoring wells drilled 9/84.	0	-	-	-	-
2 LV	Brummett Oil Tonganoxie 9-11-21	petroleum	PST leak	Recovery treach used. Second potential source found at site.	39	-	42	C	GW
2 DG	Callery Chemicals Lawrence 13-12S-19E	boron	past manfctr.	Monitoring complete by KDHE. Low levels of boron found.	53	-	21	C	GW
2 DG	CFCA (Farmland) Lawrence 4-13-20E	chromium	lagoons	BWM reviewing closure plan for lagoons.	59	-	7	C	GW,S
2 JO	Chemical Commodities Olathe 36-13-23E	chemicals solvents	bulk storage	EPA enforcement action.	52	-	22	C	SW,S
2 WY	Coral Refinery Kansas City 2-14-8E	heavy metals and acids	sludge pits	Pre NPL investigation 1986.	46	-	33	C	GW
2 WB	Co-op Station Alta Vista NE 2-14S-8E	petroleum	PST leak	Recovery trenches dug. Tank replaced.	49	-	26	C	GW
2 JO	Cy Frazier Gardner		PST leak	Pumping to waste. Removed soil and basement contaminated by fuel.	40	-	41	C	GW
2 JO	Deephe Disposal 6-12-24E	leachate	landfill	EPA Superfund Site with RI/FS.	66	-	3	C	GW,S
1 LV	Doris' Market & Gas 25-9-25E	petroleum	PST leak	Recovered over 800 gal. gasoline. Water discharged to city sewer for treatment.	46	-	33	C	GW
2 DG	Eudora PWS well #2 SE 5-13-21E	benzene	unknown	City notified to discontinue use of well for consumption. Source to be determined.	66	-	3	C	GW
1 WY	Fairfax Levee 27-10-25E	primer solvent	drums	Cleanup completed by KDHE. Order to PRP.	58	-	10	C-P	S-GW
1 DR	Fairview RUD #1;PWS #3 NE,NE,SW 27-2-15E	CCL4	unknown	Investigation needed. Well in service. Periodic resampling to be conducted.	62	-	5	C	GW
2 DG	FMC Lawrence NE 29-12S-20E	arsenic	pond	Recovery. Monitoring ongoing by PRP.	72	-	1	C	GW
2 JO	General Motors Corp.; Olathe 35-13-23E	heavy metals	lagoon	RCRA site lead.	65	-	37	C	S
1 WY	General Motors Kansas City, KS 27-10-22E	VOC	unknown	Cleanup in process of negotiation.	58	-	10	P	GW
1 LV	GHB Batteries, Leavenworth 12-9-22E	petroleum	land disposal	EPA lead site.	32	-	49	P	GW,S
1 LV	G&R Construction Kansas City 22-11-25E	lead	barrel storage	No recent activity, state lead.	37	-	45	P	S
2 WY	Homer St. NWSWNE 17-11-25E	leachate	drum site	PRP cleanup underway under KDHE order.	47	-	29	C	S
2 JO	Hudson Oil 8925 Roe Ave. Prairie Village 33-12-25E	petroleum	residual spills	Tanks and lines tested. Planning investigation.	34	-	47	C	GW
2 SN	Hydro Flex Corp.; Topeka 3-11-15	chrome	buried tanks	Monitoring wells, sampled. Pre NPL investigation 1986.	54	-	19	P	GW
2 SN	Industrial Chrome, Topeka NE,NE,SW 29-11S-16E	chrome	industrial	Extent of pollution to be determined. Contaminated soil removed and disposed.	57	-	13	C	GW,S
1 LV	Kansas Penitentiary 19-9-23E	metals	lagoons paint factory	Monitoring well by KDHE/PRP. Delisting review.	46	-	33	C	GW,S,SW
2 WY	King's Disposal Kansas City		barrels	Barrels removed.	0	-	-	-	-
2 JO	Kuhlman Diecasting, Stanley 16-14-25E	metals	lagoons	EPA review of proposed groundwater assessment plan.	41	-	40	C	GW
2 JO	K.U. Landfill (Sunflower) N/2,N/2,NW 13-13S-21E	dioxane	landfill	KDHE monitoring. Cover and slurry well system being designed.	47	-	29	C	GW,S,SW
1 LV	Leavenworth Sanitary landfill #3	unknown	unknown	EPA lead on investigation.	36	-	46	P	GW
2 WY	Macks, Kansas City 20-11-25E	flamable liquids	drums	Cleanup completed by KDHE.	0	-	-	-	-
2 JO	Mark IV, Stanley 8-14-25E	solvents	drums	Cleanup completed by KDHE.	0	-	-	-	-
1 WY	Model Landfill 34-10-25E	VOC	landfill	Observation wells installed.	58	-	10	C	GW
1 DR	Morrill PWS Well #5 SW,SE 26-01S-15E	CCL4	unknown	Well out of service. Some water purchased from RWD. Investigation needed.	59	-	7	C	GW
2 JO	National Distillers and Chemical Corp. Sunflower 20-13-22E	acids	lagoons	EPA lead on site investigation.	39	-	42	P	GW
2 WY	National Guard Armory, KC 17-11-25E	solvents	dump site	Site covered by parking lot.	49	-	26	C	GW
2 WY	Nova Products Kansas City	pesticides	barrels	Barrels removed. Site for delisting.	0	-	-	-	-
2 JO	Olathe City landfill 26-17-23E	heavy metals	landfill	PRP agreed to prepare cleanup plan.	34	-	47	P	GW
1 MI	Paola, City of sewers NE,NE,SW 9-17-23E	petroleum	PST leak	Amoco station to test lines and tanks 5/86. Perched water table.	44	-	38	C	GW
2 WY	PDI-Gordon Kansas City	chemicals	storage	PRP cleanup. No further action warranted at this time.	57	-	13	C	GW
2 JF	Perry PWS wells 1&2 23-11-18E	CCL4	unknown	Investigation needed. Both wells exceeded MAL.	59	-	7	C	GW
1 WY	Phillips Petroleum aka K.C. Refinery; 2829 Fairfax, Kansas City	petroleum	barrel leaks	Recovery, source control, monitoring by PRP.	60	-	2	C	GW
2 SR	Pouhattan, PWS 28-3-16E	VOC	elevator	Monitoring	42	-	39	C	GW

GW = Groundwater SW = Surface Water
S = Soil SE = Other Sources P = Permitted for Contamination
PRB = Priority Ranking Number C = Contaminated

Company names have been included for the purpose of identifying site locations. It is not necessarily correct to assume that the named company is the responsible party.

RB	Co.	Name	Contaminant	Source	Status	COST TO RESTORE x $ 1000	PRB	DIST RANK	PROB TYPE	PROB MODE
1	LV	Quality Oil 500 N. Main St. Lansing SE 13-9S-22E	petroleum	line leaks	Most of lost product confined to tank excavation and recovered. Estimated 1000 gallons still missing.	45	33	P	GW	
12	FR	Rantoul Franklin Co. RWD #6 22,27-17-21E	brine	pits	Closed pits shut down wells.	52	22	C	GW	
1	LV	Select Products Leavenworth NE,SW 10-9S-23E	VOC	storage tanks	Operating low yield recovery wells, and discharging to sewer since June 1984.	47	29	C	GW,S	
2	SH	Shawnee County landfill	benzene	landfill	Monitoring.	25	50	P	GW	
1	LV	Sinclair Gas Station 4th & Elm Leavenworth NE,NW,SW 36-8-22E	petroleum	PST leak	Perched water table. Tanks abandoned and replaced. 6/86 report.	39	42	P	GW	
2	PT	St. Mary's PWS well #5 NW,SW 10-10S-12E	CCL4	unknown	Investigation needed. Well in service, periodic resampling by KDHE.	55	16	C	GW	
2	DG	Sunflower Army Ammunition Plant Desoto 12-13-21E	nitroguanidine?	SAAP	Monitoring.	49	26	C	GW	
2	WY	S&G Metals 2nd & Riverview Kansas City, KS 11-11S-25E	chloride	slag piles	1980 high level arsenic and lead. 1981 well sampled at 1200 mg/l Cl.	54	19	C	GW	
2	WY	Textilana Lease; Edwardsville 30-11-24E	xylene, toluene	ponds	Presently not monitored. Investigation needed.	61	6	C	GW	
2	WY	Thompson-Hayward Kansas City, KS N/2 13-11S-24E	phenols	lagoons	PRP monitoring included in remedial action. Cleanup continuing.	57	13	C	GW	
2	JO	Total Petroleum 3205 Herrion Lane Herrion	petroleum	line leak	Recovery trench and monitoring wells installed. Project nearly complete.	0	-	-	-	
2	JO	Victorian Marble Leawood T13-25E	epoxy resin	storage	Owner advised to dispose of resin storage in landfill.	11	51	P	GW	

GW = Groundwater
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P = Potential for Contamination
SW = Surface Water
RB = River Basins
C = Contaminated

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SOUTHWEST DISTRICT CONTAMINATED SITES LIST

15-Oct-86

RB	Co.	Name	Contaminant	Source	Status	COST TO RESTORE X 1000	PRB	RANK	TYPE	MODE
6	PT	Albert PWS well 29-10-15W # 3	brine	oil field	Rising chloride levels in recent years may be from oil field activity in area.	UK	51	15	C	GW
6	HS	Boxine Co-op, Boxine SW,SW 30-10-21W	gasoline	PST leak	Contaminated water well. Leak corrected.	$5	52	11	C	GW
7	HH	Bill Burch well, Syracuse SW 7-23-40W	mineral water	drainage	Localized. Drainage down gravel pack of private well. Advised to seal.		33	32	C	GW
6	HB	Dixon 4-18-17W	nitrates	natural?	Well 162 each exceed drinking water standards. New wells have been drilled, but production is poor.		50	17	C	GW
6	KE	Colorado Interstate Gas Co.Lakin H/2HK29-26-36W	VOC's	injection well	Sampled water well. VOC detected.		69	18	C	GW
6	RB	Dale Ater, Albert SW22-18-16W	brine	oil field	Considerable work in past to identify source.	$3	58	4	C	GW
8	BA	Diel Farm SW23-36-11W	flammable liq.	drums	Cleanup of drums completed by KDHE. Groundwater monitoring needed.		19	36	P	GW,SW
6	PH	Enoch Thompson, Burdett NW 17-21-20W	brine	storage pits	Probably no active source, stock well at 1180 ppm Cl. Needs investigation.	25	38	27	C	GW
6	FO	Farmland Industries 22-26S-24W	chromium	acid spill 1978	Remedial action continuing by PRP. Withdrawal wells.		55	9	C	GW
6	FI	Finney County LF, Garden City S/2SE36,23,33W	leachate	landfill	Irrigation ditch leaked to landfill. Observation wells drilled. Irrigation canal sealed.		52	11	P	GW,SW
6	KH	Gene Avey, Albert NE 15-18-16W	brine	unknown	Localized. House well at 500 ppm Cl.	$5	58	4	C	GW
8	BA	Hardtner PWS well 1 8-35-12W	metals	drilling	PWS well #1 monitored.		43	25	C	GW
7	HT	Helium Sales Inc., Richfield	heavy metals	lagoon	Use of lagoon waste water on agricultural land.		46	20	C	GW
6	FO	Henry Strecker SW 9-24-.1W	brine	leaking	PRP installed new water well for land owner, but refused to monitor.	15	45	21	C	GW
6	HS	Hess Oil Co., Hess City SW,SE 30-10S-23W	gasoline	PST leak	Source controlled. Investigation needed.	12	59	2	C	GW
6	FI	Iowa Beef Processors, Holcomb SE,NW 2-24-34W	brine	hide curing	Unlined storage lagoon received brines. Monitoring well 2760 mg/l Cl.		56	8	C	GW
6	HS	Jay Herron and others,Hess City SE,NW 30-10-23W	gasoline	PST leak	Co-op station lost gasoline. Source was corrected.	5	59	2	C	GW
6	FI	Kalvesta Restaurant NW 15-23-27W	benzene	storage tank	Monitoring		44	22	C	GW
8	SF	Kent Rixon NW 7-24-13W	chlorides	unknown	Irrigation well has 250-500 ppm Cl. Exploratory holes drilled to locate source. Unsuccessful.	UK	35	30	C	GW
8	SF	Kent Rixon SW 16-24-13W	brine	drill pit	Drilled second well to find fresh water. Pollution is localized.	UK	31	33	C	GW
8	BA	Kiowa PWS #3 NESWNWSW 11-35-11W	CCl4	elevator/railroad	PWS #2 taken out of production.		58	4	C	GW
6	HS	Kirby Clawson, Satanta SW 36-29-34W	brine	disposal well	Same as Hess.	$2000	-	-	-	-
6	KH	Lacrosse 33,34-17-18	chlorides	oil field wells	Well no longer in use.		44	22	C	GW
6	HH	Leoti PWS NENESWNE 13-18-37W	CCl4	unknown	Monitoring		52	11	C	GW
6	PH	L.R. Marlett NW 13-21-16W	brine	drill pit	Contaminated well 80 ft from oil well. New water well drilled. Working to have monitoring well installed	1	55	9	C	GW
6	Po	NUPIL (Excel), Dodge City NW 4-27-24W	brine,chrome	lagoon	Lagoon was lined. Chlorides may have moved out of area. (alluvial aquifer).		52	11	P	GW
6	HK	Meade PWS wells 1,2 Meade SWSWSWW11-32-28	diesel oil	pipe line leak	Several thousand gal. diesel oil recovered. Interceptor wells installed, source repaired, monitor.		51	15	C	GW
6	HS	Mesa Petroleum/Kirby Clawson SW16-21-15W	salt water	disposal well	Cleanup plan developed, not implemented.	UK	30	34	C	GW
7	SH	Panhandle Eastern, Liberal 6-35S-33W	VOC	disposal	Cleanup plan approved. City to treat discharge. Recovery in operation.		62	1	C	GW
6	HS	Ranson Co-op, Ranson SE,NW 25-16-24W	gasoline	PST leak	Wells installed to define contaminant area. Recovery effort failed.	25	35	30	C	GW
3	RH	Raymond Oil NE 3-16-19W	brine	disposal well	Recovery of saltwater ceased due to depletion of saltwater. Residual remains.	UK	0	-	-	-
6	HG	Raymond Smith NW 1-23-23W	brine	oil field activity	Localized mineralization may be from old brine pond or improperly plugged well.	25	37	29	C	GW
6	HG	Schrader stockwell #2,3,11-24-24W	brine	pit	Testing of disposal well integrity planned.	UK	30	34	C	GW
6	SC	Scott City Shop, Scott City 18-18-NENWSW32W	solvents	lagoon	Potentially for leakage from lagoon.		58	4	C	GW
6	SC	Shallow Water Refinery, Scott City 13-20-33W	petroleum	lagoon	Potential contamination from lagoons.		44	22	C,P	S,GW
6	PO	Stake Site SENE 17-29-24W	ethyl parathion	airplane crash	Resolved		0	-	-	-
6	PH	Stanley Moffett, Larned SW 16-21-15W	salt water	core hole	No success locating source.		40	28	C	GW
7	GT	Ulysses Gas Processing Co UlyssesNWNENW5-29-38S	KOH		Line used to neutralize potassium hydroides in pit by owner.		38	27	P	GW
8	BA	Wildboy's Cattle & Land Co., SW,NE 24-33-11W	brine	artesian flow	Monitoring ongoing PRP plugged well in 1980.	$100	67	19	C	GW

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C = Contaminated
P = Potential for Contamination

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SOUTHCENTRAL DISTRICT CONTAMINATED SITES LIST
16-Oct.-86

RB	Co.	Name	Contaminant	Source	Status	Cost to Restore x $1000	PRE	DIST RANK	PROB TYPE	PROB RANK
8	SG	Aero Sheet Metal 29-27-1E	solvents	storage	PRP cleanup consider for delisting.		63	13	P	GW,S
8	SG	Air Products AKA Abbott Labs, Wichita NE33-28S-1E	VOC	waste pond	PRP monitoring and recovery in operation. BUM evaluating closure plan for barrel storage area.		53	37	C	GW
8	SG	Aircraft Instrument&Development Wichita SW,SW21-27S-01E	VOC	stripping room	Fall 1984 purgable organics detected. Withdrawal well contracted by PRP. Monitoring.		52	40	C	GW
8	SW	Alta Hills Area pond 2-22-2W	chlorides	pond	Source controlled, area being field checked.		0	-	-	-
8	SG	Al's Phillips 66 2001 S. Oliver, Wichita	gasoline	PST leak	Order sent to responsible parties (Case No. 86-E-115).		49	45	C	GW
8	SG	Amoco, Wichita 25-27-1E	gasoline	PST	City flushed sewer. Amoco replace all tanks.		42	63	P	GW
9	SW	Andover Drumsite 36-26-3E	metal drums		Cleanup by KDHE. Disposal completed.		47	50	P	S,GW,SW
8	SG	Architectural Metal Products Inc. 35-27-1E	acids	barrel storage	Cleanup by PRP. KDHE drilled monitoring well, took soil samples. Recommend delisting.		55	30	C	GW
9	CL	Ark City Dump Site, Arkansas City 36-34-3E	asphaltic sludges		Phase II remedial investigation approval and funded by EPA. Superfund site.		73	1	C-P	GW,S-SW
8	SW	Atchison, Topeka & Santa Fe RR Newton, NW,NW 20-23S-01E		pipe leak	PRP recovery plan in effect and on-going.		37	65	C	GW
8	SG	Barachman Complaint NENW4-28-1E	unknown		Investigated 1980. No product discovered. Presently inactive.		45	55	P	GW,S
8	SG	Barnsdall 33-26-1E	VOC	multiple	Pre-HPL investigation.		58	24	C	GW
8	SG	Barton Solvents aka Bruno Inc Valley Center NWSE36-25S-1W	benzene	waste disposal pit	Site investigation, including monitoring underway by PRP.		67	7	C	GW,SW,S
8	SG	Big River Sand Co. Wichita SE2-27S-01E	VOC	barrel storage	Source removed HPL/EPA lead site. Superfund site. RI/FS initiated.		57	26	C	GW,SW,S
8	SG	Boeing M.A.C. Wichita 11-28-1E	TCE	degreaser units	Cleanup plan has been formulated by PRP.		67	7	C	GW
8	SG	Brooks Landfill 35,26-26-1W		landfill	Wells installed and being monitored.		41	64	P	GW
8	SW	Burrton Oil Field T23,24S-03,04W	brine	wells	Testing injection wells monitoring shallow aquifer; wells to monitor	80 *	67	7	C	GW
8	SG	Cartainteed Maize 13-26-1E	organic solvents	gravel pit	Three wells installed; removed three buried tanks; continued monitoring.		45	55	C	GW
8	SG	Cessna Aircraft Pawnee, Wichita	solvents	landfill	Investigation by private party in progress. Monitoring wells installed and sampled.		57	26	C	GW
8	SG	Cessna Aircraft Wallace Wichita 28S-01E	VOC	unknown	Investigation by private party in progress. Source areas to be defined.		63	16	C	GW
8	SG	Chapin Landfill Wichita 27S-01E	VOC	landfill	Closed site 1980. Cap being added to site. Monitoring.		45	55	P	GW
8	SG	Cheney Private Well 8-28-4W		unknown	Product recovered. Cleanup action ceased 1984 with removal of tank.		63	16	C	GW
8	SG	Cheney PWS well #6 NW,NE,NW,SE 8-28S-4W	CCL4, nitrates	unknown	Investigation needed. Well in service. Periodic resampling by KDHE.		52	40	C	GW
8	SG	Clearwater PWS well #2 SW,SE,SE,SE 33-29S-2W	PCE	unknown	Well out of service.		54	34	C	GW
8	CL	Co. Maintenance Yd. Winfield SW,SW,NW 32-32S-4E		pipe line	Source controlled. Periodic inspection KDHE. No remedial work implemented.		48	48	C	GW,SW
8	SG	C&J Fina 11012 SW Blv. SE 7-28S-01W		unknown	Owner of gas station notified that they contaminated own well.		53	40	C	GW
8	SG	Dan's Fina 1555 S. Meridian Wichita	petroleum	PST leak	Tank was replaced 1986. No attempt at recovery.		47	58	C	GW
8	SG	Derby Refinery 1100 E 21st Wichita		PST line leaks	Cleanup program established; continued recovery and monitoring by PRP.		49	45	C	GW
8	SW	Don Franz Complaint Hodgwick NE,NE,NE 9-25-2E	petroleum	PST leak	Source eliminated 1978. Minimal attempt at recovery. PRP out of business.		47	58	C	GW
8	SG	Excel Wichita NW,NE 4-27S-01E	VOC	unknown	Pre HPL investigation.		55	30	C	GW,SW
9	SW	Forrest Reavis Augusta NE,NW,NE 15-27-4E	gasoline	pipeline	Two other pipelines tested tight. Continuing to monitor.		67	58	C	GW
8	SE	Fourth & Carey St. Hutchinson NW,NE,NW 17-23S-5E	CCL4 PCE	industrial	Candidate HPL site. Includes PWS 8 & 12. City looking for new source. #8 out of service.		61	19	C	GW
8	SW	Freund Complaint N. 5th Conway Springs	petroleum	PST leak	Source controlled 1980 Pumping to waste stopped prior to 6/84.		45	55	C	GW
8	SW	Full Vision Newton 25-23-1W	metals	lagoon	Observation wells drilled 1986.		45	55	P	GW
8	SG	Gerald Blood Orchard Wichita T29S-01-2E	brine	inadequate	PRP plugged 32 wells 1984 KDHE monitoring.	4000	66	10	C	GW
9	SW	Getty Refinery El Dorado 16,15-26S-5E		pipe leaks	Recovery wells installed 1979-80 by PRP.Continue operating.Barrier wall to be installed.Invest needed.		27	70	P	GW,SW
8	SG	Golden Rule Wichita 33-26-1E	VOC	solvent sludgepits	Wells installed and monitored; Pre HPL.		63	13	C	GW
9	SW	Hackney Co-op Hackney 20-33S-4E	CCL4	unknown	Submitted as candidate for possible listing on HPL.		51	43	C	GW
8	SW	Halstead PWS well #5 NW,NE,NE,SE 35-23S-2W	TCE	unknown	Investigation needed. Well in-service and periodic resampling by KDHE to be conducted.		56	29	C	GW
8	SE	Hayes Site 6 Sound 510 N Main Hutchinson SE,Se,SW13-23-6W		PST leak?	Possible source had been replaced about nine months earlier (1/84). Gas in private well.		73	1	C	GW
8	SE	Highway Oil Hutchinson SESESW13-23-6W	petroleum	PST leak	Tank repaired. Observation wells installed.		73	1	C	GW
8	SW	Holleo-Bikkel area T23S-03,04W	brine	ponds	Known sources controlled. Drilling to define contamination area planned. Probably about 40 acres.	40 *	61	19		GW

GW = Groundwater SW = Surface Water
S = Soil SE = Sewer System P = Potential for Contamination
PWS = Priority Watershed Number C = Contaminated

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RB Co.	Name	Contaminant	Source	Status	Cost to Restore x $1000	PRN	DIST RANK	PROB TYPE	PROB RANK
8 RH	Hutchinson Salt Companies Cargill Morton 19-23-5W	brine	pits and intrusion	Pumping seems to contain contamination to site, yearly sampling KDHE.	5	66	10	C	GW
8 SW	Ivan Bruce Argonia 12-32-4W	chloride	disposal well	Disposal well passed MIT 9/25/85. Isolated contamination. Investigation started 11/85.	13	33	69	P	GW
8 SG	Jones Catron comp. Rio Vista 7-26-1E	chloride	waterflood operation	Cl levels receded naturally.Disp lines&operating wells proven integrity 1982.	13	60	21	C	GW
8 SG	Johns' Refinery Wichita NW,NE 9-27S-1E	VOC lead	waste disposal	EPA to conduct regional investigation to address contamination.		37	65	C-P	S-GW
8 SG	Johns' Sludge Pond Wichita NW,NW 3-27S-01E		refinery	Remedial action Superfund site completed.		36	67	C	GW,S
8 RH	Krause Plow, Corp. Hutchinson 16-23-6	metals	landfill	Onsite wells and soil sampled.		25	71	P	GW
8 SG	K-Line Plastics area, Derby SW 13-29-01E	VOC	unknown	Scattered contamination of private wells. Owners notified. Drilling/investigation planned.		68	6	C	GW
8 SG	Levee Road II 1-27-01	sludges		Cleanup completed site inspection before delisting.		54	34	C-P	S-GW
9 BU	Mobil Oil refinery Williams Pipeline Augusta	metals	waste lagoons	Closure plan under review by KDHE. Product recovered in 1982. Off-sire investigation needed.		46	56	C	GW
9 CL	Nelson Machine Shop Winfield 26-32-9E	corrosive solids	drums	KDHE cleanup disposal completed.		43	62	C	GW,SW
8 RH	Nickerson PWS Well #6 NE,NW,NW 15-22S-7W	dichloroethane	unknown	Investigation needed. Well in service, periodic resampling scheduled by KDHE.		59	23	C	GW
9 SG	NIES Furley 26-25-2E	VOC	treatment lagoons	EPA assumed responsibility in 1984. Remedial work under way.		44	60	C	GW,SW
8 SG	North Broadway Wichita S16,17,20,21-26S-1E	VOC	scattered	Order sent to possible responsible party. Proposal approved for site investigation.		73	1	C	GW
8 RH	Obee Road Hutchinson NE S15 NW S14 SE S10-T23S-R5W	VOC	multiple sources	Submitted 9/85 to EPA for NPL consideration.KDHE monitoring continued. RWD #4 hooked to city.		57	26	C	GW
8 SG	Park City PWS wells Park City	petroleum	pipeline leaks	Source repaired Product recovered and burned 1980. Presently monitoring PWS wells.		60	21	C	GW
9 Bu	Pester Refining Company	unknown	unknown	PRP doing investigation for Pre NPL and burn pond closure (RCRA).		48	48	C-P	GW
9 BU	Potwin PWS well #1 NW,NE,SE,NW 29-26S-4E	CCL4	unknown	Well out of service. Investigation needed.		53	37	C	GW
8 SG	Radium Petroleum SWSW 16-26-1E	unknown	unknown	No further investigation recommended.		62	16	C-P	S-GW
8 SG	Reid Supply Company 4-27-1E	solvents	unknown	RCRA generator reviewing RCRA Part B application.		34	68	P	S,GW
8 SG	Schulte Field 10-28-1W	chlorides	oil field	Field abandoned in 1961. Monitoring to keep track of pollution.		44	68	C	GW
8 BU	SBS El Dorado NW 5-26-5E		metal drum recycle	PRP lead in cleanup		49	65	C-P	S-GW,SW
8 RH	Soda-Ash Waste Disposal 8-23-5W		waste pile	No significant contamination found. No further action warranted.		56	34	P	GW
9 CL	Strother Field Hackney U/3 18,19-33S-4E U/3 13,24-33S-3E	solvents	unknown	Withdrawal wells and air-stripping tower installed and tested by PRP. Superfund site.		64	12	C	GW
8 CL	Total Petro.Inc(Roxanna Petro)Ark. City 32-34S-04E 5-35S-04E		spills leaks	Submitted closure plan for hazardous waste lagoons. Oil recovery ongoing.		69	5	C	GW
8 RH	Turon PWS Well #3 SW,NE,SW 4-26S-10W	CCl4	unknown	Well in service pending new well construction. KDHE monitored.		53	37	C	GW
9 BU	Vickers Refinery Potwin SW,NW 29-26S-4E	benzene lead	tank leaks	Cleanup plan has been developed by PRP.		58	24	C	GW
8 SG	Vin Trailer Wichita 4-27-1E	VOC	unknown	KDHE monitored Pre NPL investigation.		55	30	C	GW
8 SG	Vulcan Materials SW 27-28-01W	VOC	landfill disposal	Landfill encapsulated 1978. Cone of depression maintained. Continuous monitoring by PRP.		55	30	C	GW
8 SG	Wichita Brass and Aluminum 33-26-1E	VOC solvents	sludge pits	Pre NPL investigation.		63	13	C	GW
8 RH	Yoder Village of NE 20-24S-5W	CCl4	unknown	Contamination of private wells. Resampling scheduled. Residents notified.		51	44	C	GW

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SOUTHEAST DISTRICT CONTAMINATED SITES LIST

01-Jan-90

BB	CO.	NAME	CONTAMINANT	SOURCE	STATUS	COST TO RESTORE X $1000	PRB	DIST RANK	PROB TYPE	PROB MODE
03	MO	59 Truck stop Erie 13-29-19E	gasoline	leaking PST	7000 gallon leak with only 50 to 100 gallons recovered. Leaked to creek. Monitoring groundwater.		03	35	C-P	S-GW
11	CE	Allco Well #1, Columbus 4-34-25E	dichloroethane	PST	Pumped to waste, monitored by PRP. Well removed from service. Source detected and removed.		40	37	C	GW
11	CE	Arcadia PWS Well #1, 01-28-25E	natural?		Well had long history of pumping crude oil and natural gas. Plugged in 1986.		40	37	P	GW
11	MO	Ash Grove Cement Co. Chanute 25-27-17E	acid waste	industrial disposal site	Five groundwater observation wells; continuing to monitor.		39	29	P	GW,SW,S
11	AL	Berg Mfg. site No. 1 5-26-20E	caustic waste liquids	disposal site	Soil samples taken; company directed to cleanup site; further investigation needed.		47	16	P	GW
11	AL	Berg Mfg. site No. 2 5-26-20E	caustic waste liquids	disposal site	Soil samples taken; company directed to cleanup site; further investigation needed.		47	16	P	GW
11	AL	Berg Mfg. site No. 3 3-26-19E	caustic waste liquids	drum disposal site	owner issuded cleanup directive; investigation pending.		48	14	P	GW
11	AL	Berg Mfg. site No. 4 3-26-19E	caustic waste liquids	disposal site	owner issued cleanup directive; investigation pending.		48	14	P	GW
10	GW	Browning Lease SE 20-32S-10E	chloride	storage pond	June 1983, 1500 ppm chloride seep at limestone outcrop. Pond emptied and covered. Monitoring.	$300	38	35	C	GW
11	CE	Brutus 7-32-23E	PCB	coal shovel	cleanup complete		0			
11	MO	Chanute landfill 27-27-18E	volatile organics	landfill	Preliminary assessment complete.		57	4	C	GW,S
11	CE	Cherokee County 200 sq. mile area	lead zinc	mine tailings	NPL/EPA lead. Phase I and II remedial investigations at one of six subsites. 9 sq. mi. Superfund site.		67	1	C	GW,SW
10	GW	Douglass Greenwood Co. 22-22-13E	brine	disposal well	Well no longer used. Seep from gravel deposits into creek contained 12,500 ppm Cl.	$906	39	29	C	GW,SW
10	GW	Errett Lease SE,SE,NW 15-23S-13E	brine	disposal well	Disposal well plugged. Saltwater flowed through shallow confined aquifer into creek. Monitoring.	$606	50	12	C	GW,SW
12	BB	Extrusions Inc. Fort Scott	caustics solvents	lagoon	Waste discharged to lagoon ceased. Lagoon excavated/graded/disced.		56	6	C-P	S-GW
10	GW	Greenwood Lease 19-22-11E	salt water	disposal well	Disposal well repaired and passed MIT. Seep of 42,000 ppm Cl from gravel deposits into ditch.	$606	45	21	C	GW,SW
11	CE	Gulf Oil Chemical Co. Columbus 26-32-22E	nitrates	impoundment	Impoundment used for treatment and disposal. Water hauled off by farmers for spraying fields.		26	36	P	GW
10	GW	Hamilton PWS well #5 SE,NE,NW,SE 10-24-11E	dichloroethane	unknown	Well out of service. Will be plugged.		53	10	C	GW
10	MG	Harriman complaint; Cherryvale SE 31-31S-17E	fluoride	unknown	Scattered samples of high fluoride and sodium detected October 1983.		36	33	C	GW
12	LM	Indian Creek 162,23-25E	acid mine runoff	coal mines	Continue to monitor creek run-off		41	26	P	GW
12	CB	Kansas Army Ammunition Plant Parsons	explosive wastes	industrial operations	Needs investigation		55	8	C	GW
12	LM	Kansas City Power and Light Co. LaCygnes 33-19-25E	diesel oil	pipeline	30,000 gallons recovered; pipe replaced continuing to monitor.		44	22	C	GW,S
11	CE	Lead/Zinc Mine Smelter Baxter Springs	mine wastes	smelter	Same as Cherokee Co.		-	-	-	-
10	GW	McCarthy Oil Co. Eureka 12-27-10E	saltwater	leaking storage pond	Monitoring storage pond no longer used.		54	9	C-P	SW-GW
11	AL	Mid America Refinery Chanute 17-27-18E	petroleum products	refinery waste	Pre NPL investigation has begun.		50	13	C	GW
10	MG	National Zinc Company Cherryvale NE 8-32S-17E	zinc	settling ponds, waste pile	Site area reclaimed, 1981 slag and tailings encapsulated on-site.		38	31	C	GW,SW,S
10	WL	Neodesha Ref. Neodesha 18,19,30-30-16E	lead	lagoon	Monitoring proposal submitted in 1984. On site sludge entombment. Pre NPL investigation.		56	6	C-P	S-GW
11	MO	Neosho No. 2 5-18E-20S	acid	sludge waste	Monitoring wells installed.		47	16	C	GW
11	AL	Prime Western Smelter, Gas 31632-24-19E	heavy metals	slag disposal	Abandoned lead and zinc smelter. Pre NPL investigation.		61	3	C-P	S-GW
10	MG	Sherwin-Williams Coffeyville NE 34-34S-16E	metals	waste lagoons	Under administrative order. RCRA closure plans submitted for lagoons.		57	8	C	GW,S
10	MG	Sinclair Oil Ref. Coffeyville 36635-34-16E	acid	sludge materials	Needs further investigation		44	22	C-P	S-GW
1	CE	Tar Creek Picher Field	metals	mine drainage	Feasibility study completed, 1984. remedial action underway. EDDE assist Okla. Superfund site.		65	2	C	SW,GW,S
35	GW	Tate Creek area (Predoja) SW 6-22-12	petroleum	unknown	Oil flowing from creek banks into creek from shallow confined aquifer. Over 250 bbls recovered.	$300	35	34	C	SW,GW
10	MG	Temple Oil co. (Fowler Lease) Burden 19-32-14E	salt water	leaking storage pond	Storage pond out of use monitoring	$603	44	22	C-P	SW-GW
11	MO	Washburn's Service Main & Forest Chanute 28-27-18E	gasoline	leaking PST	All PST tested Oil tank replaced. Fumes in adjacent basements stopped. Monitoring groundwater.		47	16	C	GW
10	MG	Wayside Prod. Co. (West Blake Lease) 28-33-14E	salt water	leaking storage pond	Pond emptied and covered. Monitoring	UK	37	32	P	GW
11	MO	Western Petrochemical; Chanute 32-27S-18E	petroleum products	sludge disposal	Pre NPL investigation		51	11	C	GW,SW,S
10	MG	Woody Lease 7-33-15E	salt water	unknown	Saltwater found in tributary to Elk City reservoir. Monitoring wells drilled.	$915	46	20	C	SW

GW = Groundwater
S = Soil
SW = Surface Water
BB = River Basins
PRB = Priority Ranking Number
P = Potential for Contamination
C = Contaminated

Company names have been included for the purpose of identifying site locations. It is not necessarily correct to assume that the named company is the responsible party.

1987
CONTAMINATED SITE
REMEDIATION
ACTIVITIES

OVERVIEW: REMEDIATION ACTIVITIES

The following section summarizes the remediation activities associated with contamination sites in Kansas. Included in this summary are status reports on private-party cleanups; enforcement activities; Kansas sites listed under Superfund; and expenditure of the state's Hazardous Waste Cleanup Fund. As noted in the table below, of the total 332 contamination sites, 142 (43%) need investigation, 93 (28%) are under investigation, and cleanup is underway at the remaining 97 (29%) sites. Greater detail is given on remediation in the subsequent sections. However, because of the complex nature of remediation activities---for example, an administrative order may direct a party to take action at several sites---it is difficult to make a one-to-one correlation between sites and remediation activities.

Summary of Remediation Status by District:

DISTRICT	NEED INVESTIGATION	UNDER INVESTIGATION	CLEANUP UNDERWAY	TOTAL
NW	54	17	15	86
NC	21	11	9	41
NE	20	12	24	56
SW	20	8	11	39
SC	12	25	35	72
SE	15	20	3	38
TOTAL	142	93	97	332

PRIVATE PARTY CLEANUPS

Private party cleanups are in progress or have been completed in all parts of the state. They involve industry, rural water districts, small communities, utilities, state facilities and dump sites. Projects have included initial site investigations, the removal of contaminated soil, cleanup of groundwater, or removal of waste materials and other sources of contamination. Some projects were initiated by the private party, others have been compelled under administrative orders. Nonetheless, the following table reflects the fact that many private parties in Kansas have been responsive to the need to clean up contamination.

Facility (Contaminant/source)	Location (affected medium)*	Status
1. Aero-Sheet Metals (solvents/storage)	Wichita (GW,S)	Cleanup complete. Considered for delisting.
2. Aircraft Instrument & Development (VOC's/stripping room)	Wichita (GW,S	Monitoring and withdrawal well.
3. Air Products (amine compounds/ evaporation pond)	Wichita (GW)	Monitoring and recovery.
4. Allco, Inc. (dichloroethane/storage tank)	Columbus (GW)	Source removed. Pumped to waste and monitoring.
5. Amoco (gasoline/storage tank)	Wichita (GW)	Replaced all tanks.
6. American Salt (brine/granier ponds)	Lyons (GW,SW)	In response to a recent KDHE administrative order, cleanup is underway.
7. Architectural Metal Products, Inc. (acids/barrel storage)	Wichita (GW)	Cleanup complete. Consider for delisting.
8. ATSF RR (diesel fuel/pipe leak)	Emporia (GW)	Recovery of product.
9. ATSF RR (diesel fuel/pipe leak)	Newton (GW)	Recovery plan in effect.
10. Barton Solvents (benzene/disposal pit)	Valley Center (GW,SW,S)	Site investigation nearly complete.

Facility (Contaminant/source)	Location (affected medium)*	Status
11. Bendena, RWD #1 (CCl_4/unknown)	Bendena (GW)	Engineer retained to find alternative water supply.
12. Gerald Blood (brine/inadequautely plugged wells)	Wichita (GW)	32 wells plugged. Monitoring underway.
13. Boeing MAC (TCE/degreaser units)	Wichita (GW)	Groundwater cleanup underway.
14. BPU (diesel fuel/pipe)	Kansas City (GW,S)	Monitoring, product recovered.
15. Brutus (PCB/coal shovel)	West Mineral (S)	Clean up of PCB's complete.
16. Bushton Grain & Elev. (nitrate/spill)	Bushton (S, GW)	Removed contaminated soil and water.
17. Certainteed (VOC's/gravel pit)	Maize (GW)	Removed buried tanks, installed wells, monitored.
18. Cessna Plt, Pawnee (solvents/landfill)	Wichita (GW)	Site investigation in progress.
19. Cessna Plt, Wallace (VOC's/unknown)	Wichita (GW)	Site investigation in progress.
20 Chemical Commodities (solvents/storage)	Olathe (SW,S)	EPA enforcement actions.
21. Conway (LPG/storage reservoirs)	Conway (GW)	Monitoring, affected wells no longer used.
22. Cross Mfg. (chrome/disposal pits)	Hays (GW)	Chrome pile removed.
23. CRA, Inc. (petroleum products/ sludge pond)	Phillipsburg (GW,S)	Removed and reclaimed petroleum products.
24. Derby Oil Refinery (petroleum storage tanks)	Wichita (GW)	Hydrocarbon recovery in progress.
25. Exline (chromium/pond)	Salina (GW,S)	Removal and treatment of chromium contaminated groundwater.

Facility (Contaminant/source)	Location (affected medium)*	Status
26. FMC Corp. (arsenic/pond)	Lawrence (GW)	Groundwater recovery and monitoring.
27. Farmland, Inc. (CFCA) (chromium/spill)	Dodge City (GW)	Remediation in proess. Withdrawal wells in use.
28. Farmland, Inc. (CFCA) (chromium/lagoons)	Lawrence (GW,S)	Currently reviewing closure plan for lagoons.
29. General Motors (VOC's/unknown)	Kansas City (GW)	Cleanup negotiations in progress.
30. General Motors (heavy metals/lagoon)	Olathe (S)	RCRA closure.
31. Getty RF (petroleum/pipe leaks)	El Dorado (GW,SW)	Petroleum recovery and monitoring.
32. Homer St. (Tobin Construction) (various wastes drummed/ unpermitted dump site)	Kansas City (S)	Site clean up in progress.
33. Industrial Chrome (chromium/disposal practices, spills, leaks)	Topeka (GW,S)	Soil removed and disposed. Groundwater investigation underway.
34. John's Sludge Pond (petroleum products/ sludge pond)	Wichita (GW,S)	Remedial action completed by the City of Wichita.
35. Kansas State Penitentiary (metals/paint lagoon)	Lansing (GW,SW,S)	Lagoon closure complete.
36. Kansas State University (radioactive materials/ storage)	Manhattan	Closure of hazardous waste storage facility.
37. K.U. Sunflower (dioxane/landfill)	Eudora (GW,SW,S)	Containment systems being designed.
38. Kings Disposal (various drummed wastes/ barrels)	Kansas City (GW)	Barrels removed.
39. Levee Plant Road (oil sludges/floodway pavement)	Wichita (GW,S)	Cleanup completed.

Facility (Contaminant/source)	Location (affected medium)*	Status
40. McDonald (nitrates/cesspool)	McDonald (GW)	New waste treatment.
41. Mesa Petroleum (brine/disposal well)	Haskell Co. (GW)	Cleanup plan developed.
42. Mobile Oil Refinery (metals/lagoon)	Augusta (GW)	RCRA closure plan.
43. NIES (VOC's/lagoons)	Wichita (GW,SW)	Closure of hazardous waste disposal facility. Groundwater cleanup underway.
44. North Broadway, Midland Oil (VOC's/multiple sources)	Wichita (GW)	Site investigation in progress.
45. Nova Products (pesticides/barrels)	Kansas City (GW,S)	Barrels removed.
46. Neodesha Ref. (lead/lagoon)	Neodesha (GW,S)	Sludge entombed and monitoring plan submitted.
47. Olathe Landfill (heavy metals/landfill)	Olathe (GW)	Cleanup plan being prepared.
48. Panhandle Eastern (VOC's/seepage bed)	Liberal (GW)	Cleanup plan approved.
49. Park City (petroleum/pipeline leaks)	Park City (GW)	Product recovered, monitoring underway.
50. PBI-Gordon (chemicals/storage)	Kansas City (SW)	Cleanup completed.
51. Pester Ref. (petroleum products/ burn pond)	El Dorado (GW)	Site investigation in progress.
52. Phillips Refinery (petroleum/barrel leaks)	Kansas City (GW)	Recovery of petroleum in groundwater, monitoring under way.
53. SDS (metals/drums)	El Dorado (GW,SW,S)	Removal and disposal of contaminated soil completed.
54. Sherwin Williams (metals/waste lagooons)	Coffeyville (GW,S)	Clean up of lead, barium, and arsenic contamination.

Facility (Contaminant/source)	Location (affected medium)*	Status
55. Strother Field (solvents/unknown)	Winfield (GW)	General Electric has begun groundwater withdrawal and treatment.
56. Thompson Hayward Chemical Co. (phenols/lagoons)	Kansas City (GW)	Cleanup underway.
57. Total Petroleum, Inc. (petroleum/leaks, spills)	Arkansas City (GW)	Recovery and monitoring underway.
58. Tar Creek** (metals/mine drainage)	Cherokee Co. (SW,GW,S)	Well plugging and surface water diversion project underway.
59. Vickers Ref. (benzene, lead/tanks)	Potwin (GW)	Site investigation and development of cleanup plan.
60. Vulcan Materials (VOC/landfill)	Wichita (GW)	Evaluation of landfill, reduction of contamination source, withdrawal of contaminated groundwater.

*GW: groundwater
SW: surface water
S: soil

**Oklahoma NPL site. Cleanup being accomplished through the Oklahoma Water Resources Board. KDHE providing management and field assistance.

ENFORCEMENT ACTIONS

Where a private party is unwilling to initiate the appropriate corrective action, that unwillingness may result in administrative or legal action. Following is a listing of various legal actions concerning remediation of environmental contamination.

PENDING OR COMPLETED COURT OR ADMINISTRATIVE ACTIONS

FEDERAL DISTRICT COURT

1. Clawson vs Mesa Petroleum — Federal district court -Wichita Case No. 85-16741C

   Status conformance and motion to dismiss heard 9/26/86. (KDHE has filed a motion to intervene in this suit brought by concerned citizens.)

2. Miller vs American Salt — Federal district court - Wichita Civil Action No. 77-1212

   Remedial plan under court review. (KDHE has given input to the court in this suit brought by concerned citizens. In a separate proceeding, KDHE has ordered American Salt to prepare a cleanup plan.)

STATE DISTRICT COURTS

1. SDS v. KDHE — Case No. 85-C-107

   Final proposed clean up plan submitted and approved. Journal entry settling the matter being prepared.

2. General Electric Company v. KDHE — Case No. 86-C-128W

   Interlocutory appeal from Hearing Officer's Order allowing amendment to original administrative order. Answer filed 8/18/86.

3. Gordon-Piatt Energy Group, Inc. v. KDHE Case No. 86-C-129W

   Interlocutory appeal from Hearing Officer's Order allowing amendment to original administrative order. Stipulated dismissal entered 8/25/86.

4. Grief Bros. Corporation v. State of Kansas & KDHE
Case No. 86-C-130W

Interlocutory appeal from Hearing Officer's Order allowing amendment to original administrative order. Stipulated dismissal entered 8/25/86.

5. Cessna Aircraft Company v. KDHE Case No. 86-CV-1029

Interlocutory appeal from Hearing Officer's Order allowing amendment to original administrative order.

ADMINISTRATIVE CASES

1. Cessna Aircraft Co. Case No. 86-E-5

Matter administratively dismissed 8/13/86. Matter dismissed in district court without prejudice.

2. Chemical Commodities Case No. 86-E-59

Administrative Order issued 6/11/86. A.O. was not appealed. Pursuant to Order, a proposed cleanup plan was received 8/6/86. Proposed plan is being reviewed by KDHE.

3. Fairfax Levee Site

Bennett-Rogers Pipe Coating, Inc. Case No. 85-E-78
U.S.S. Chemicals, Inc. Case No. 85-E-72

Site cleanup and contractor paid, cost recovery is next step.

4. General Electric Company Case No. 86-E-4

Prehearing conference held 6/19/86. Amended Order issued 6/26/86. Appealed to Cowley County on 7/25/86. Answer filed 8/18/86.

5. Gordon-Piatt Energy Group, Inc. Case No. 86-E-7

A. O. administratively dismissed. Judicial appeal dismissed without prejudice.

6. Harpool Brothers Case No. 86-E-115

Order requiring Harpool Brothers to test their lines and tanks was issued 8/14/86. This matter can be appealed through 8/28/86.

7. Mark IV Site

Satellite City	Case No.85-E-74
Lee Siebert	Case No. 85-E-75
Mark Twain Marine	Case No. 85-E-76
Mark IV Fiberglass	Case No. 85-E-77

Site cleanup and contractor paid. Cost recovery next step.

8. Pester Oil — Case No. 86-E-128

No new action. Plan of study by company consultant has been approved.

9. Phillips Petroleum Co. — Case No. 86-E-128

Order to submit plan in process of being concurred upon.

10. Potwin — Case No. 86-E-128

Right of entry to landowners' property being obtained. Phase I investigation is nearing completion. Phase II Order is being concurred upon.

11. Strother Field

Grief Bros., 86-E-6 A.O. administratively dismissed.

Gordon-Piatt energy Group, 86-E-7 A.O. administratively dismissed.

Cessna Aircraft Company, 86-E-5 A.O. administratively dismissed.

12. J.A. Tobin Construction — Case No. 86-E-30

Matter continued. Tobin taking affirmative steps to resolve this matter.

KANSAS SITE RELATIONSHIP TO FEDERAL SUPERFUND

The U.S. Congress enacted the Comprehensive Environmental Response Compensation and Liability Act (better known as Superfund) in 1980. This act established a $1.6 billion fund for investigation and clean-up of hazardous waste problem sites. CERCLA was re-authorized by Congress and signed by the President on October 17, 1986, providing $9 billion over the next five years. This could result in expenditures for clean-up activities as high as five to ten million dollars per year over the next five years in Kansas.

Kansas currently has seven sites listed on the National Priorities List, making those sites eligible for federal funding of investigation and remedial activities. One site---the NIES facility near Furley---has been submitted to EPA as a candidate site; three potential candidate sites are in the NPL screening process; and an additional 14 sites are still early in the investigative phase. State resources are used to fund preliminary site investigations. However, as the sites move into the NPL/Superfund process, federal funds pick up a greater share of the costs. For example, KDHE has entered into a $250,000 Cooperative Agreement with EPA enabling the Department to move beyond the preliminary state-funded investigation at the 14 sites. Of the seven NPL-listed sites, KDHE has the lead at two: Strother Field and Arkansas City. Further investigation at Kansas sites may eventually yield additional NPL/Superfund candidates.

Federal Superfund

Kansas National Priority List Sites

Name, Location	Type of Facility	Nature of Problem	Site Status - December 1986
LISTED SITES			
Doepke Disposal, Holliday	Abandoned Chemical Dump/ Landfill	Potential groundwater contamination near Johnson County water intake.	RI/FS by EPA contractor is underway.
Arkansas City, Arkansas City	Abandoned petroleum refinery.	Soil and groundwater contamination; open lagoons (acid pits).	KDHE conducted a Phase I remedial investigation in 1982. KDHE contracted USGS to conduct the now completed Phase II remedial investigation. These investigations were funded by RCRA 3012 grant funds. Further investigations are being funded under CERCLA. These field investigations by USGS begin in January 1987.
Cherokee County, Cherokee County (six subsites Galena, etc.)	Abanoned lead and zinc mines.	Soil, surface water and groundwater contamination with heavy metals. Groundwater and surface water contamination with acid mine water. Public health impact.	This is an EPA-lead NPL site. EPA has broken the project down into six subsites. Phase I and Phase II of the Remedial Investigation of the Galena subsite (9 square miles) was completed in April of 1986. EPA and its contractor, CH2M Hill, estimates that the Feasibility Study of the Galena subsite will also be completed by October, 1987. A surface water investigation is being conducted for the five other subsites.
Johns' Sludge Pond, Wichita	Abandoned waste sludge pond from oil refining operation.	Potential groundwater contamination. City contractor completed sludge removal, treatment, stabilization w/ kiln dust, and redeposition with clay liner. The filled pond was capped and reseeded. Composite sampling of the filled area has revealed the contents are no longer hazardous.	The city of Wichita has submitted to EPA a groundwater site monitoring closure plan. EPA is drafting a petition for delisting this site from the NPL.

Name, Location	Type of Facility	Nature of Problem	Site Status - December 1986
Big River Sand Site, Wichita	Sand and Gravel	Owner accepted approximately 2,000 drums of hazardous waste; bulk liquid solvents dumped on site. Initial site cleanup was done in 1983-1984.	Subsequent soil sampling, test hole, and monitoring well analysis by KDHE in 1984 and 1985 indicated residual solvent contamination near two cleaned up disposal areas. EPA is presently directing Superfund activities at the site. EPA has enlisted the U.S. Army Corps of Engineers to conduct an RI/FS to determine what additional remedial actions may be necessary. The work plan for the RI/FS is in its second draft.
Strother Field, Cowley County	Industrial Park	Groundwater contamination multiple potentially liable parties; GE appears to be a contributor; some pollution of nearby town of Hackney well.	Administrative Order issued by KDHE April 9, 1985 ordered a private party cleanup. Private party has initiated groundwater monitoring and treatment. Monitoring wells have been installed and sampled. Installation of air stripping towers and groundwater withdrawal wells has been completed.
Obee Road, Hutchinson	Landfill	Groundwater contamination detected in numerous private and public drinking wells.	Recently listed in NPL.
CANDIDATE SITES			
NIES, Furley	Commercial hazardous waste disposal facility.	Buried waste drums, lagoons; groundwater contamination found.	EPA issued an Administrative Order (under Section 106 of CERCLA) to the private party and has assumed responsibility for implementation of a consent agreement.
POTENTIAL CANDIDATE SITES			
Hackney groundwater, Winfield	Grain Elevator	Tetrachloromethane detected in private drinking water; contamination wells problem.	Hazard Ranking Score submitted by the state to EPA for NPL consideration. Groundwater monitoring by the state continues.
Abandoned United Oil (AKA - 4th and Carey) and grain elevators, Hutchinson	Refinery and grain elevators.	Tetrachloromethane detected in the Hutchinson municipal well field resulting in the removal of well number 8 from operation.	Hazard Ranking Score submitted by the state to EPA for NPL consideration. Groundwater monitoring by the state continues.
Golden Rule, Wichita Brass and Aluminum; Wichita	Old petroleum refinery operations.	Various organic compounds	Hazard Ranking Score submitted by EPA for NPL consideration. The state is currently investigating these sites under the pre-NPL Cooperative Agreement.

EXPENDITURE OF HAZARDOUS WASTE CLEANUP FUNDS

Governor John Carlin recommended in his message to the 1984 Session of the Kansas Legislature that hazardous waste cleanup funds be financed by appropriating $500,000 for fiscal years 1985 and 1986, and $1,000,000 each year for fiscal years 1987 through 1990. The Legislature appropriated $200,000 in FY 1985, $350,000 in FY 1986 and $425,000 in 1987. With exception of the study conducted by the Tracer Research Corporation, all of the projects involved removal of hazardous waste contamination or potential contamination of air, land, or water resources.

Nelson's Machine Shop	$ 9,870	FY 1985
Mack's	14,548	FY 1985
DDT	1,410	FY 1985
Andover Drum Dump	7,150	FY 1985
Diel Farm	8,400	FY 1985
High Plains Chemical I	139,686	FY 1985
High Plains Chemical II	36,161	FY 1986
Fairfax Levy Dump	139,394	FY 1986
Mark IV Fiberglass	99,126	FY 1986
Tracer Research Corporation	53,000	FY 1986
Wolf, Kansas City	8,238	FY 1986
Hazardous Waste Clean Up Days	125,000	FY 1987
Total	$641,983	FY 85-87

Cleaning up contamination sites is a complex, difficult and costly undertaking, requiring an elaborate remediation mechanism. The following table illustrates the process and the extraordinary length of time a remediation project can take. Indeed, the time frame for compliance monitoring and cost recovery can be indefinite as the table indicates. It is a fact that the current average cost of a federal Superfund site cleanup is in excess of $8 million.

Aquifer Remediation Process

Step	Time in months
Site identification, ranking	2 to 4
Remedial investigation	6 to 36
Feasibility study	4 to 12
Remedial design	6 to 36
Implementation	12 to 36
Compliance monitoring	Indefinite
Cost recovery	Indefinite

Average cost = $8 million; range = $200,000 to $2 billion