

Approved _____ Date _____

MINUTES OF THE House Sub COMMITTEE ON Energy

The meeting was called to order by Representative Carl Holmes at _____
Chairperson

3:30 ~~xxxx~~ ~~am~~ p.m. on February 3, 1987 in room Old Supreme Court Rm. of the Capitol.

All members were present except:

Committee staff present:

Ramon Powers, Legislative Research Department
Theresa Kiernan, Revisor of Statutes' Office
Bill Buchanan, Legislative Research Department
Betty Meyer, Committee Secretary
Conferees appearing before the committee:
Representative Keith Roe
Greg Hattan, City Commissioner of Concordia, Kansas
Laura Menhusen, North Central Kansas Citizen's Group, Jewell, Kansas
John McClure, North Central Kansas Citizen's Group, Glen Elder, Kansas
Mark McDonald, Beloit, Kansas
Representative LeRoy Fry
Walter Ellis, Lyons, Kansas
Virgil Jeardoe, Tipton, Kansas
Paul Burmeister, Claflin, Kansas
John Blythe, Kansas Farm Bureau
Marsha Marshall, Kansas Natural Resources Council
Stevi Stephens, Nuclear Awareness Network, Lawrence, Kansas
Shaun McGrath, The Sierra Club, Topeka, Kansas
Robin Hood, Chiropractor, Concordia, Kansas

Chairman Carl Holmes called the meeting to order.

Representative Roe made a brief statement concerning HB2108, and asked the following conferees to speak.

Greg Hattan stated that the burial of radioactive wastes presents many of the same problems as the burial of chemical wastes; contamination of ground water, land, air and food chain. Attachment 1

Laura Menhusen testified Representative Roe is taking the right direction by introducing HB2108 which bans the burial of both high and low level radioactive wastes in Kansas. Attachment 2

John McClure supported HB 2108 with a petition signed by 40 citizens of Glen Elder, Kansas. Attachment 3

Mark McDonald expressed his support of HB 2108 by stating Kansans are heavily dependent on their underground water supplies, relying solely on them as a source of water. Attachment 4 STANDING COMM. 3/4/87

Representative Fry made a statement on HB 2050 and asked the following conferees to speak.

Walter Ellis testified that the people of central Kansas are concerned about the possibility of storage and disposal of nuclear waste in the Carey Salt caverns of Lyons. Attachment 5

Virgil Jeardoe, spoke for the citizens of Tipton, Kansas concerning the dangers of low level radioactive waste being placed in a dump site surrounding their community. Attachment 6

Paul Burmeister presented a petition with over 200 signatures on it in favor of HB2050.

John Blythe read the policy formulated by the Kansas Farm Bureau on Hazardous Waste Disposal, asking that Kansas not become a dumping ground for waste materials from other states or nations. Attachment 7

CONTINUATION SHEET

MINUTES OF THE House Sub COMMITTEE ON Energy,

room Old Supr. Statehouse, at 3:30 ~~xxxx~~ p.m. on February 3, 1987
Ct. Rm.

Marsha Marshall testified in support of HB 2050 and HB 2108 but stated that in her view, designing a facility for permanent isolation of low level wastes through either burial or emplacement in bedded salt formations is an unrealistic performance objective for three reasons: 1. Longevity of low level wastes 2. Lack of experience 3. Poor track record for disposal.

Attachment 8

Stevi Stephens urged the committee to take the leadership role in protecting the health, safety and welfare of Kansas citizens by disallowing the ground burial, or emplacement in salt formations, of radioactive waste.

Attachment 9

Shaun McGrath testified that although HB 2050 and HB 2108 do not offer specific solutions to to the problem of the safest and most responsible manner to store low level radioactive wastes, they narrow the field of possibilities by effectively eliminating methods which have been proven inappropriate and hazardous to the environment.

Attachment 10

Chairman Holmes adjourned the meeting at 5:20 p.m.

Date: Feb. 3, 1987

GUEST REGISTER

HB 2050

HOUSE

HB 2108

COMMITTEE ON ENERGY AND NATURAL RESOURCES

Feb. 3, 1987

NAME	ORGANIZATION	ADDRESS	PHONE
Jack Walker	Lt. Governor		
Jared Byer	Kansas City Times		
Kathleen Byer	KNRC	Topeka	
Shaun McGrath	Sierra Club	"	233-6707
Ann McDonald	NKK Cottage	517 W. 8th Beloit	738-5840
Wade M. Malinell	Same as above	" "	738-2211
Jerry Conner	KG&E	TOPEKA	354-1741
John C. Woodman	KCPAL	K.C., Mo	556-2155
Joe Kramer	KCPAL	K.C., Mo.	816/ 556-2925
FOR SCHNEIDER	K.S. RURAL CENTER	TOPEKA	233-5419
Emily Wellman	KCC	Topeka	296-2761
Bruce Sampson	K.C.C.	Topeka	296-4747
Steve Orbanell	Ks Corporation Commission	"	296-2347
Carmona Starks	—————	Lanucee, Ks	842-7671
Bruce Weimer	Topeka Hill County	Topeka	
Winfred Zimmerman	Topeka Peace Resource Center	1408 BURNETT Rd 04	272-1361
John K. Blythe	Ks Farm Bureau	Manhattan	537-2261
Shelley Sutton	Ks Engineering Society	Topeka	233-1867
Jean Hays	Flynn-Beaman	W. center	268-6557
Robin McCrete	Intern / Gratiwit	Topeka	233-7959
Dale Schuyze		Manhattan	776-0575

Date: 2-3-87

GUEST REGISTER

HOUSE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

NAME	ORGANIZATION	ADDRESS	PHONE
Virgil R. Jeardae	NCK Citizens	Cowker City Kan.	378-7322
Russell H. Burkner	N.C.R.	Fipton	378-4265
Bert Patton	Cowker City Council member	Cowker City Ks	781-4497
Paul F. Burmeister	Rice County Concerned Citizens; and North Central Kansas Citizens	R.R. 1, Box 168 Clayton, Ks 67525	316- 587-3919
Vanora Fry	Leg Wife	Lille River	877-6330
Donise Everhart	Son. Silvano		
Allen Levine	leg. Aide - Betty Jo Charlton	1415 Ky. Lawrence	749-2926
Bob Utter	NCRPC	BELOT, KS	
Doug McKinney	NC Regional Planning Commission	" "	738-2218
Charles V. Hamm	Kans. Dept. of Health + Env.	Topeka, Ks	862-9360
Gene S. McClure	N.C.K. Citizens	Glen Elder, KS	545-3592
Louise Park	N.C.K. Citizens	Maneato, Ks	378-3567
Laura McElwain	NCK Citizens	Jewell, Ks 66949	428-3579
Harold L. Spiber	Kan. Dept. of Health + Env.	Topeka, Ks. 66620	862-9360 Ext. 286
Karen McIntyre	NCK Citizens	Randall Ks 66963	739-2481
Janil Wilson	KNRC	Topeka	
Maria Marshall	KNRC	Topeka	233-6717
Kathy A. Wittman	City of Concordia	Concordia	
John F. Hood	KNRC NCK Citizens	Concordia, Ks	
Aleg Hatton	City of Concordia	Concordia	243-9927
Sue Meydyak	Rice Co. Concerned Citizens	Lyon, Ks	
		Lyon, Kansas	



135 E. 6TH ST. - P.O. BOX 603 - CONCORDIA, KANSAS 66901

HB 2108, banning the underground burial of radioactive waste, is consistent with current law banning the burial of hazardous wastes in Kansas. The burial of radioactive waste presents many of the same problems as the burial of chemical wastes: contamination of ground water, land, air and food chain.

In fact, a portion of the waste targeted for disposal at the low-level radioactive dumpsite would contain both hazardous and radioactive waste. As an example, there would be radioactive chemicals, such as chelating agents used to clean reactor piping, which when mixed in a landfill will continue dissolving radioactive materials and encourage their migration off-site.

On November 12, 1985, the Special Committee on Energy and Natural Resources of the Kansas Legislature published a report that clearly shows that chemical waste is intended for disposal along with other low-level radioactive waste.

The safety record of commercial dumps utilizing the technology of underground burial of radioactive waste is a poor one. At site after site, radioactive materials have migrated off-site and contaminated land and ground water.

Should any crops or livestock in Kansas be affected by this type of contamination, the results would be disastrous. Recent marketing efforts to identify and promote Kansas grain or beef would be wasted. After the incident at Chernobyl, it is clear that no one in the world is interested in radioactive agricultural products. I have attached an article about Brazils refusal to accept radioactive milk from Europe.

Rather than burying radioactive waste, it would be far better to store the waste in reinforced concrete bunkers utilizing the concept of monitored retrievable storage. This is the technology of choice in areas that have already experienced failure with burying radioactive waste in the ground.

Supporting information for this position is listed on the attached report. If I can provide further information, please contact me at your convenience.

Sincerely,

Gregory L. Hattan

Gregory L. Hattan
City Commission
City of Concordia

GLH:scb

Enclosures

House Subcommittee on Energy
2-3-87 #1

Estimated Maximum Annual Quantities of
Solid Low-Level Radioactive Waste Produced
at Wolf Creek Generating Station

Source	Influent Volume to Solid Low-Level Radioactive Waste System (cubic feet)	Quantity of Drums Shipped
Primary Spent Resins	920	263
Secondary Spent Resins*	2,000	415
Primary Evaporator Bottoms	1,474	421
Secondary Evaporator Bottoms*	22,026	4,156
Primary Filter Cartridges	239	239
Secondary Filter Cartridges*	72	72
→ <u>Chemical Wastes</u>	240	60
Reverse Osmosis Concentrates	832	157
Dry Active Wastes	10,000	1,330
Total Drums Shipped as Low-Level Radioactive Waste		2,470**

* Normally does not require disposal as solid low-level radioactive waste.

** Each drum contains 7.5 cubic feet of low-level radioactive waste. The total volume of waste destined for disposal as low-level radioactive waste is estimated at 18,500 cubic feet annually (18,500 cubic feet of low-level radioactive waste is comparable to 85 dump trucks carrying 8 cubic yards of such waste).

Brazilian court bans sale of contaminated milk

By The New York Times

RIO DE JANEIRO, Brazil — A Brazilian federal court has banned the sales of powdered milk imported from Western Europe because it has been found to be contaminated with radioactive residue from the Chernobyl nuclear accident in the Soviet Union.

The distribution of the contaminated powder has infuriated consumer groups here, which say the Brazilian government in September raised the level of permissible radiation specifically to allow the European shipments to come in.

Angry debates and a flurry of press reports over the imports have been fueled by an earlier controversy in which the government was accused of importing radiation-laden meat from Western Europe in its efforts to offset domestic shortages.

Consumers already have bought more than 30,000 tons of the contaminated powdered milk, said the government's consumer protection agency. Remaining stocks of close to 5,000 tons have been embargoed.

The milk bought since the disaster at the Chernobyl plant in April came from seven different European countries and showed widely varying levels of radioactive cesium, the consumer agency said. The highest quantities were found in shipments from Austria and Ireland, an agency report said, and lower levels were found in milk from Belgium, Britain, Denmark, France and the Netherlands.

One shipment from Austria contained 774 bequerals a kilogram, more than twice that country's own permitted limit, while Irish milk had 227 bequerals, the report said.

SHALLOW LAND BURIAL VS ENGINEERED FACILITIES

I. Dr. Judith H. Johnsrud - Testimony before V.S. House Interior and Insular Affairs Committee, February 23, 1984.

"... having studied the history of shallow land burial, many conclude that near-surface trenches, even those which conform to (current) Nuclear Regulatory Commission...Standards, are not an adequate means of LLRW (low-level-radioactive-waste) isolation."

"They are technology designed to fail... Above ground engineered storage appears to offer the best existing means of isolating those wastes."

II. Environmental and Energy Study Conference Weekly Bulletin, June 7, 1985.

NRC officials believe that Part 61 Standards can be used to license any proposed "near-surface disposal facility," rather than just shallow land burial sites. Many Compact regions, for example, plan to build "engineered facilities," such as above-surface concrete bunkers mounded with dirt, or concrete vaults or cells."

III. Central-Midwest Compact: Illinois and Kentucky.

Both Illinois (Sheffield) and Kentucky (Maxey Flats) have had shallow land burial sites which were closed because of contamination of surrounding land and ground water. As a result, their Compact agreement calls for "above-ground facilities and other disposal technologies providing great and safer confinement."

IV. James L. Harvey, President of Southwest Nuclear Company, one of the nation's largest low-level-waste handlers.

"I don't have too much of a problem with a shallow land site in a desert area," Harvey said. "The only place I have a problem, and I've had a lot of experience in this, is where you have heavy rainfall."

The Beatty, Nevada dumpsite receives 4 inches of rain per year, and the water table is 300 feet. North Central Kansas received over 40 inches of rain in 1986, and the water table is generally less than 50 feet.

V. HR 1083 - Low-Level Radioactive Waste Policy Amendments Act of 1985.

Sec. 8(a) Not later than 12 months after the date of enactment...the Nuclear Regulatory Commission shall...identify methods for the disposal of low-level radioactive waste other than shallow land burial, and establish and publish technical guidance regarding licensing of facilities that use such methods.

HELLO, I'M LAURA MENHUSEN. I AM HERE TO REPRESENT THE 750 MEMBERS OF THE NORTH CENTRAL KANSAS CITIZENS. WE ARE A GROUP OF VERY CONCERNED CITIZENS THAT ORGANIZED IN THE FALL OF 1985 AFTER FINDING OUT THAT MANY AREAS IN NORTH CENTRAL KANSAS WERE BEING CONSIDERED FOR A POSSIBLE LOW LEVEL RADIOACTIVE WASTE DUMP SITE. OUR GROUP IS MADE UP OF FARMERS, DOCTORS, MOTHERS, FATHERS AND GRANDPARENTS: JUST ORDINARY PEOPLE. NOT A BUNCH OF EXCITED KOOKS AND CRACKPOTS. WE HAVE LEGITIMATE CONCERNS AND WORRIES.

MANY OF THE RADIOACTIVE WASTES WHICH WILL BE PLACED IN THE PROPOSED DUMPS WILL REMAIN POTENT AND DEADLY FOR MANY HUNDREDS AND EVEN THOUSANDS OF YEARS: WE PROPOSE THAT PLANS FOR STORING THESE DANGEROUS SUBSTANCES BE MADE IN A DELIBERATE, EDUCATED MANNER, ALWAYS CONSIDERING THE WELFARE OF THE COUNTLESS GENERATIONS TO COME. WE APPLAUD REPRESENTATIVE KEITH ROE FOR TAKING THE FIRST STEP IN THIS DIRECTION BY INTRODUCING HB # 2108 WHICH BANS THE BURIAL OF BOTH HIGH AND LOW LEVEL RADIOACTIVE WASTES IN KANSAS.

ONE OF OUR GREATEST CONCERNS IS THE POSSIBLE CONTAMINATION OF OUR GROUND WATER BY RADIOACTIVE WASTES ESCAPING FROM BELOW-GROUND STORAGE SITES. DOCUMENTED REPORTS OF LEAKAGE FROM THE 6 ORIGINAL COMMERCIAL LOW LEVEL RADIOACTIVE WASTE DUMP SITES, OF WHICH 3 HAVE BEEN FORCED TO SHUT DOWN, MAKE IT CLEAR THAT OUR CONCERNS ARE VALID AND URGENT.

AT THIS TIME THERE IS NO TRULY SAFE WAY TO DISPOSE OF RADIOACTIVE WASTES. OUR SCIENTISTS HAVE HAD 30 YEARS TO COME UP WITH SOME SORT OF SOLUTION TO THIS DISTURBING PROBLEM. AT THIS POINT IN TIME WE FELL THE SAFEST METHOD OF STORAGE OR ISOLATION OF RADIOACTIVE WASTES FROM OUR ENVIRONMENT IS ABOVE GROUND MONITORED, RETRIEVABLE STORAGE, ON OR NEAR THE SITE OF THE NUCLEAR POWER PLANTS. WE WOULD LIKE TO SEE THESE WASTES STORED ON SITE FOR THE NEXT 30 YEARS--- HOPEFULLY BY THAT TIME THERE WOULD BE A TOTALLY SAFE METHOD OF DISPOSAL. THIRTY YEARS IS ALSO THE PROJECTED LIFE FOR THE POWER PLANT--

IF THERE WAS STILL NO ACCEPTABLE METHOD OF DISPOSAL, THE DUMP SITE AND THE DECOMMISSIONED POWER PLANT, WHICH WOULD BOTH BE IN THE SAME AREA COULD CONTINUE TO BE MONITORED BY THE STATE UNTIL SUCH TIME THAT A DISPOSAL METHOD WAS PERFECTED.

STORAGE AT THE POINT OF THE GENERATION OF THE LARGEST AMOUNT OF WASTE WOULD PREVENT THE MANY PROBLEMS CONNECTED WITH TRANSPORTATION. TRANSPORTING THE WASTES OF 5 STATES TO JUST ONE LOCATION WOULD DO MUCH DAMAGE TO OUR STATE'S ALREADY DETERIORATING HIGHWAYS. LARGE TRUCKS HAULING HEAVY LOADS OF THE WORLD'S MOST DEADLY GARBAGE WOULD NOT ONLY HASTEN THE NEED FOR NEW ROADS, BUT CREATE COUNTLESS POSSIBILITIES OF RADIOACTIVE CONTAMINATIONS OF PROPERTY AND PERSONS OCCURRING BECAUSE OF LEAKAGE AND TRAFFIC ACCIDENTS.

WE FEEL THAT EACH STATE SHOULD BE RESPONSIBLE FOR IT'S OWN WASTES. IF WE CAN HAVE ON OR NEAR SITE, ABOVE GROUND, MONITORED, RETRIEVABLE STORAGE AT EACH POWER PLANT IN OUR 5 STATE COMPACT THEN WE FEEL WE SHOULD CONTINUE TO BE A MEMBER OF THE CENTRAL INTERSTATE LOW LEVEL RADIOACTIVE WASTE COMPACT. IF WE ARE GOING TO BECOME THE UNWILLING HOST STATE FOR THE 7 NUCLEAR POWER PLANTS IN OUR COMPACT----WE WANT OUT!

OUR GREATEST CONCERN, OF COURSE, ARE THE HEALTH RISKS TO ALL HUMAN BEINGS PRESENT & FUTURE. AUTHORITIES AGREE THAT THE RATE OF CANCER, BIRTH DEFECTS AND GENETIC DAMAGE INCREASE WHEN THE HUMAN BODY IS EXPOSED TO THE IONIZING RADIATION FROM RADIOACTIVE WASTES. AS OUR FOREFATHERS PROVIDED FOR OUR FUTURE WHEN THEY WROTE OUR CONSTITUTION SO SHOULD WE PROVIDE A SAFE FUTURE FOR OUR NEXT GENERATIONS.

ANOTHER VERY IMPORTANT PROBLEM FOR KANSAS IS THE FACT THAT THE PROPERTY VALUES IN OUR STATE HAVE FALLEN DRAMATICALLY OVER THE LAST FEW YEARS. PLACEMENT OF A LOW LEVEL RADIOACTIVE WASTE DUMP SITE IN OUR AREA WOULD JUST PROVE TO ACCELERATE THIS SITUATION, BY THE MIGRATION OF OUR FARM FAMILIES, BECAUSE OF THE POTENTIALLY DISASTROUS EFFECTS OF RADIATION POLLUTION.

OUR RURAL ECONOMY WOULD ALSO BE FURTHER DEPRESSED BY THE
RELUCTANCE OF POTENTIAL NEW INDUSTRIES TO LOCATE NEAR A
WASTE DUMP SITE. THERE ARE MANY PEOPLE WORKING VERY HARD
RIGHT NOW TO BRING INTO NORTH CENTRAL KANSAS A LARGE RESORT
AND A VOLCANIC ASH PLANT. WOULD YOU WANT TO LOCATE A BUSINESS,
OR BUILD A NEW HOME AND BRING YOUR FAMILY INTO AN AREA WITH
A RADIOACTIVE WASTE DUMP SITE?

IN CLOSING I WOULD LIKE TO SAY THAT IF YOU PASS HB # 2108
WHICH BANS THE UNDERGROUND BURIAL OF RADIOACTIVE WASTE,
YOU WILL BE SHOWING THE NATION THAT KANSAS HAS LEARNED A
VALUABLE LESSON FROM OUR COUNTRIES MANY PAST MISTAKES, AND
THAT COMMON SENSE IS NOT DEAD!

LAURA MENHUSEN
BOX 354
JEWELL, KANSAS 66949

PRESIDENT N.C.K.CITIZENS

THE NORTH CENTRAL CITIZENS FEEL THAT IT IS BOTH FAIR AND LOGICAL TO REQUIRE THE STORAGE OF RADIOACTIVE WASTES PRODUCED BY THE WOLFCREEK NUCLEAR POWER PLANT IN COFFEY COUNTY BECAUSE:

COFFEY COUNTY, KANSAS DERIVES ECONOMIC BENEFIT FROM THE PRODUCTION OF RADIOACTIVE WASTE GENERATED AT THE WOLF CREEK NUCLEAR GENERATING STATION. COFFEY COUNTY, KANSAS SHOULD THEREFORE RIGHTFULLY ACCEPT RESPONSIBILITY FOR ANY WASTE GENERATED FROM SAID FACILITY. BE IT UNDERSTOOD, THAT INDUSTRY WITHIN COFFEY COUNTY, KANSAS, I.E., THE WOLF CREEK PLANT, IS RESPONSIBLE FOR 99.9% OF ALL RADIOACTIVITY PRODUCED WITHIN THE STATE OF KANSAS.

NCK CITIZENS SUPPORTS THE CONCEPT OF MONITORED RETRIEVABLE STORAGE (MRS), WHEREBY ALL " LOW-LEVEL" RADIOACTIVE WASTE GENERATED AT WOLF CREEK IS STORED IN ABOVE-GROUND, RADIATION PROOF, REINFORCED CONCRETE BUNKERS. THE ADVANTAGES OF MRS ARE OBVIOUS: a.) RADIOACTIVE WASTE COULD BE STORED ON-SITE, WHERE IT IS PRODUCED WITHOUT UNDUE CONCERN FOR GEOLOGICAL FORMATION. b.) THERE WOULD BE NO POSSIBILITY OF GROUND-WATER OR AGRICULTURAL PRODUCT CONTAMINATION. c.) RADIOACTIVE WASTE COULD BE EASILY MONITORED AND INSTANTLY RETRIEVED IF/WHEN (AS THE NUCLEAR ESTABLISHMENT CONTINUOUSLY STATES) A METHOD FOR "SAFE" DISPOSAL OR NEUTRALIZATION IS FOUND. d.) UTILITIES WILL DEVELOP AN INCENTIVE TO PRODUCE LESS RADIOACTIVE WASTE WHEN THEY ARE FORCED TO STORE IT LOCALLY OR ON SITE. e.) THE WOLF CREEK SITE IS ALREADY CONTAMINATED WITH SEVERAL RADIOACTIVE STRUCTURES---STORE RADIOACTIVE WASTE THERE---DON'T CONTAMINATE FURTHER PRECIOUS AGRICULTURAL GROUND.

THE COST OF SAID BUNKERS WOULD BE OFFSET BY THE FOLLOWING: a.) NO TRANSPORTATION COSTS INVOLVED IN TRUCKING THE RADIOACTIVE WASTE TO A DISTANT DUMP SITE. THESE WOULD INCLUDE REPACKAGING COSTS, TRUCKING COSTS, ADDITIONAL INSURANCE FOR HAZARDOUS MATERIAL TRANSPORTATION, ROAD UPGRADING, ETC. b.) IF RADIOACTIVE WASTE WAS STORED ON-SITE, NO FUTHER LAND ACQUISITION WOULD

WOULD BE NECESSARY AND NO DUPLICATING MONITORING EQUIPMENT
WOULD BE NECESSARY. c.) NO HEAVY EARTH-MOVING EQUIPMENT
WOULD BE NECESSARY AND THERE WOULD BE NO COST FOR TRENCHING
AND RE-FILLING AS IN SHALLOW LAND BURIAL.

NCK CITIZENS is opposed to a LLRAWD in NC Kansas because:

1. HIGH WATER TABLES AND THE PROXIMITY OF THE OGALLALA AQUIFER
 - water tables generally less than 60-70'
 - ogallala aquifer too close
2. TOO HIGH OF RAINFALL AND WIND CONDITIONS
 - 28" of rain per year will leach contaminants
 - high winds may disperse poorly packaged or spilled RAW
 - what about tornadoes?
3. AGRICULTURAL PRODUCT CONTAMINATION
 - tritium or deuterium contamination disasterous
 - don't store RAW near food supply
4. LOSS OF POPULATION
 - most people live in Kansas for the quality of life, will they stay if forced to live near a hot RAWD?
5. LOSS OF INDUSTRY
 - What industry will locate in NCK knowing environmental pollution from a hot, RAWD could adversely affect their buisness?
 - loss of industry means lower wages for all NCK residents
6. LOWER PROPERTY VALUES
 - what will your property be worth located near a hot, RAWD?
 - who will you sell it to?
7. A SECTION OF NCK WOULD BECOME UNINHABITABLE FOR CENTURIES
 - do you want to see a radioactive "no man's land in NCK?
8. COST OF CONTAMINATION CLEAN-UP, SURVEILLANCE, & MAINTENANCE FOR CENTURIES
 - contamination with RAW would cost millions to clean up, if possible
 - cost of surveillance, testing, and maintenance would be staggering when one takes int account this must be done for 10 centuries
9. TRANSPORTATION
 - waste would come into Kansas from all directions, some Kansas roads are poor, inviting accidents and spillage
 - 344 accidents which leaked LLRAW have occurred to date
10. NCK DUMP WOULD ACCEPT RAW FROM 10 STATES RATHER THAN 5
 - provisions allow the dumping of the Rocky Mountain Compact(AZ, CO, NM, NEV, WYO) for years to come. This is in addition to KS, NE, OK, AR, & LA
11. INCREASED BIRTH DEFECT AND DISEASE RATE IN NORTH CENTRAL KANSAS
 - all authorities agree on increased cancer, genetic dammage, & birth defects in humans when exposed to ionizing radiation from RAW
12. WHAT ABOUT FUTURE GENERATIONS
 - it isn't fair our children should pay the cost for storage of RAW for centuries ..is this the legacy we leave
 - our children should not be subjected to these health problems because we generated electricity in this manner
13. KANSAS SHOULD ONLY BE RESPONSIBLE FOR RAW GENERATED IN KANSAS
 - let other states take care of their own RAW
14. PEACE OF MIND AND QUALITY OF LIFE WILL BE DESTROYED
 - people should be able to exist in peace with the environment, not worrying if their next meal or drink is contaminated with RAW
15. IF RAW IS SO SAFE, STORE IT WHERE IT IS PRODUCED
 - this would eliminate transportation hazards
 - monotoring systems are already in place aronun nuclear reactors
 - why contaminate more areas-reactor sites are already hot
 - when they run out of room, let them eat it

NORTH CENTRAL KANSAS IS A FERTILE, PRODUCTIVE FARMING AREA. WE RAISE CROPS, LIVESTOCK, AND HUMAN FAMILIES; WE DO NOT WANT TO RAISE CANCER RATES AND INCIDENCES OF BIRTH DEFECTS, ETC. ESCAPING RADIATION WOULD BE CAPABLE OF PRODUCING THESE VERY EFFECTS. OUR PRESENT MORBIDITY AND MORTALITY RATES ARE MODERATE---WE WANT TO KEEP THEM SO---EVEN IMPROVE OUR QUALITY OF LIFE,, NOT DAMAGE IT IRREPARABLY.

RADIOACTIVE DUMPS LEAK---ALL OF THEM HAVE AND DO. EVEN OUR MOST BRILLIANT SCIENTISTS HAVE FAILED, AS YET, TO SOLVE THE TERRIBLE PUZZLE OF HOW TO DEAL WITH THE INCOMPREHENSIBLE FORCE WHICH REMAINS IN RADIOACTIVE SUBSTANCES FOR YEARS, CENTURIES, THOUSANDS OF CENTURIES. IT IS SOMETHING LIKE TRYING TO CARRY THE SUN IN ONE'S POCKET.

WE MAY NOT HAVE A LARGE POPULATION, BUT WE VALUE THE LIVES OF ALL OUR PEOPLE AND OUR DESCENDANTS TO COME. ECONOMIC PROBLEMS ARE FORCING MANY OF OUR PEOPLE TO LEAVE THEIR FAMILY FARMS, INDUSTRY REFUSES TO LOCATED IN DISTRESSED AREAS; A RADIOACTIVE DUMP WOULD ONLY SERVE TO WORSEN THESE CONDITIONS. LAND VALUES HAVE FALLEN QUITE ENOUGH---RADIOACTIVE MATERIALS IN OUR SOILS AND STREAMS WOULD MAKE THEM PLUMMET TO ZERO. WHO AMONG US WOULD WANT OUR CROPS, OUR DRINKING WATER CONTAMINATED WITH RADIOACTIVITY?

MANY PERSONS IN THIS AREA WERE ABSOLUTELY OPPOSED TO THE BUILDING OF THE WOLF CREEK NUCLEAR POWER PLANT. THESE PERSONS ARE NOW ABSOLUTELY OPPOSED TO THE IDEA OF BEING SUBJECTED TO THE RADIOACTIVE WASTE PRODUCED BY THIS PLANT.

WE FEEL THAT AS CITIZENS OF KANSAS AND THE UNITED STATES WE MUST EXERCISE OUR CONSTITUTIONAL RIGHT TO FREE SPEECH IN OPPOSING AN UNWANTED, RADIOACTIVE "GIFT" AND TO MAINTAIN THE RIGHT TO LIFE, LIBERTY, AND THE PURSUIT OF HAPPINESS--- FREE FROM FEAR OF RADIOACTIVE ELEMENTS INTRODUCED, AGAINST OUR WILL, INTO OUR ENVIRONMENT.

Glen Elder, KS
2/3/87

from John McClure

I support House Bill No. 2108, banning the underground burial of radioactive waste in Kansas. House Bill No. 2108 will help to insure that radioactive waste will be disposed of in a manner that does not endanger the citizens of Kansas.

Clifford Brunner
Jill Lahn

Cecil Baehner

Danny L. Turner

Wilson Neff

Fern E. Lund

Lloyd E. Thompson

Larry (Tom) Saming

Denise K Jackson

Karen Mayer

Jarred Henningsen

Charlotte Gentleman

Leo Eberle

Ted W. Elale

Jim Slote

Barbara G. Wintz

Mrs. Wilson Neff

Mrs. Melva DeFay

Joe DeFay

Lynne Wiley

Lisa Smith

Debbie Hooper

Charles H. Parker

Harold W. Peck

Geneva Porter

Margaret Cook

George Megli

Michael Jones

Geneva Jones

Bruce G. Newby

Jack Mangos

Doug Schell

Jim Dean

John D. Boy

Ray & Ann

Pat Howell

James R. Tipton

Paul W. Winkler

Larry E. Thompson

Good afternoon. As a funeral director and resident of Beloit, Mitchell County, Kansas, I wish to share my concerns and ideas regarding the handling and storage of radioactive and hazardous materials in Kansas.

I would like to begin by expressing my support for House Bill #2108 as introduced by Representative Keith Roe of Mankato, Kansas. Kansas is an agricultural state situated in the buckle of the farm belt. We are heavily dependent on our underground water supplies, as many farmers and communities rely solely on them as a source of water. These water supplies are precious and every possible measure must be taken to protect and preserve them. Should these precious water supplies become contaminated by radioactive or hazardous materials, we would be in a very critical position.

I believe that storing radioactive and hazardous materials above ground is essential in protecting our underground water supplies. By utilizing the best, most efficient technology, above ground storage of these materials would permit them to be closely monitored and controlled. Once radioactive and hazardous materials are buried, it becomes very difficult to monitor and control them, and I believe there should not be further burial of such materials.

In addition, I am deeply concerned about the overall economic and environmental consequences Kansas would suffer if this state were chosen to be a host state for a low level nuclear waste dump by the Central Interstate Low-Level

Radioactive Waste Compact Commission. The state economy is hurting, and rural economies are even more depressed. We are experiencing a decline in population, unemployment, businesses are closing and we are having great difficulty attracting young people and new businesses. We have lost tax revenues from land now being used for dams and lakes. These conditions would worsen if such a facility were placed in a rural area such as North Central Kansas while removing all incentive for future population growth and economic development.

I wish to mention that there is a very strong possibility that a large resort facility may be constructed at Lake Waconda near Glen Elder, Kansas. That project would greatly benefit North Central Kansas and should not be jeopardized.

Environmentally, our rural areas offer clean land, air, and water along with outstanding hunting, fishing and recreational opportunities plus viable, food producing farm land, and we prize these rewards.

There are no simple solutions to the complex problem we are discussing today. I believe that Kansas should carefully formulate a thorough, long-range plan to cope with the state's own nuclear, radioactive and hazardous wastes. First, House Bill #2108 should be approved. Second, Kansas should withdraw from the Interstate Compact and develop its own, above-ground storage facility on the premises of Wolf Creek Power Plant, with all other applicable materials being very carefully transported to this site. Thus, Wolf Creek would be a self-contained facility. Third, we must make plans for the eventual decommissioning of Wolf Creek.

In my opinion, an above-ground storage facility for low level nuclear and radioactive wastes at Wolf Creek offers several advantages. First, the dangers and hazards associated with transporting the materials would be greatly reduced. As a licensed embalmer, I am deeply concerned about all of the possible dangers the general public would face should a transit accident occur. Second, I believe that this facility could be developed to be cost effective for the agency operating the site and the power plant. Third, this site would help pave the way for the decommissioning of Wolf Creek. Fourth, this site will allow Kansas to take care of its own hazardous wastes and materials while keeping its viable food producing land available for that purpose.

In summary, I have expressed my support for House Bill #2108 and have expressed my concerns and ideas regarding the manner in which Kansas could cope the problem of storing its own nuclear, radioactive and hazardous wastes.

Thank you very much.

Walter Ellis

TESTIMONY FOR ENERGY AND NATURAL RESOURCE COMMITTEE CONCERNING THE USE
OF THE LYONS SALT MINE AS A DEPOSITORY FOR RADIOACTIVE WASTE.

As a citizen, I appreciate the opportunity to come before this committee and present these views.

Low-level radioactive waste is material that has become contaminated with radioactive elements or radionuclides. Low-level waste is generally defined by what it excludes rather than what it contains. It excludes: (1) spent reactor fuel, (2) waste generated from reprocessing spent fuel, (3) transuranic waste, or waste composed of elements heavier than uranium, and (4) uranium mill tailings or waste. These are all high-level radioactive wastes. Only a small percent of the generated waste comes from hospitals, etc. Some ninety percent is generated from commercial power reactors, research institutions, industry, and government.

Small concentrations of long-lived radionuclides may be present in low-level wastes. When questioned in a local informational meeting in Lyons in November of 1986, Mr. Harold Spiker, physicist with the Kansas Bureau of Air Quality and Radiation Control, said that there would be the possibility of Strontium 90 and Plutonium 239 being present in such low-level waste. These dangerous radionuclides would be lethal and would require monitoring for 240,000 years. Dr. Jack Dysart, M.D., from Sterling, Kansas, states that even microscopic particles of plutonium, if inhaled, would be certain death from developing cancer. The microscopic particle would transmit its lethal dose directly to the lung tissue.

We in Central Kansas are concerned about the possibility of storage and disposal of nuclear waste in the Carey salt caverns of Lyons.

The salt mine in question is not, as the printed media has stated, "near Lyons." The shaft is within the city limits and the vacant corridors lie directly under the town. The corridor comes within 500 yards of American Salt's working mine.

Fires, spillage, poor packaging and mislabeling have long plagued existing low-level dump sites. We don't welcome these impending disastrous situations into our community.

Temporary above-ground storage while waiting down-shaft disposition will be subject to all of the natural calamities of Kansas weather. Human error or transporting accidents could result in an immediate health-threatening situation. Emergency situations would have to be anticipated by the local hospital, and emergency crews such as fire and ambulance attendants would require expensive special training and special equipment. Who is going to pay for all this?

In the 60's, the Atomic Energy Commission studied the area, including the Carey mine, for storage or disposal of both high and low-level waste. They abandoned the project when it was condemned by the Kansas Geological Survey. Virgil Cole, a consulting geologist, in describing the strata said, "The area around Lyons is the center of a highly fractured region", and "we have recorded thirty-eight prominent earthquakes since 1867," and "The salt (in the mine) is only a few hundred feet from the Cenozoic gravel deposits, which supply water for the Arkansas River."

Dr. William Hambleton, former head of the Kansas Geological Survey, stated there were many old oil wells in the area, not logged and poorly plugged, which could allow water to enter the mine. He said the area was like Swiss cheese. Since there are many abandoned, poorly plugged oil wells, it is quite possible that surface water, or water under pressure from the deep Arbuckle formation

could erode into the salt, dissolving out a cavern which would enlarge, until it broke into a tunnel flooding the mine. Conceivably this could happen in the next thirty minutes.

In December of 1986, our own Kansas Department of Health and Environment concluded that the Carey Salt Mine was contributing to a plume of salt contamination and ordered a cleanup. The monitoring well used by the state, in part, for its conclusion, is located at the south-most city limits of Lyons, the polluting mine being located on the far north edge of Lyons. The monitoring well is located upstream and less than one mile from three city water wells.

In the Carey Salt Mine, the floors are buckling from tremendous downward pressure exerted by the walls. The unshored ceiling is shedding slabs of salt. Even now a maintenance person is responsible for the daily pumping of water from the sump areas. It's our understanding that at this time the lower level of the shaft has collapsed.

Mr. Raymond Perry, Interstate Compact Chairman, acknowledged at a December 18 meeting in Topeka, that the best container made, at present, is of a ceramic material that is cost-prohibitive. (It breaks down at about the same rate as the nuclear particles.) All other containers will decompose faster than the nuclear material. In this unstable salt and water environment, what assurances can be made that these deteriorating containers won't release the radioactive contents into the general shaft environment, exhausted air, and general ground and water migration?

We've been personally assured by the Kansas Department of Health and Environment at our local information meeting and again by Raymond Perry, Compact Chairman, at the December 18th public meeting that credibility of the developer

would be given high priority in the selection process. The annual property tax on the Carey Salt Mine is a meager \$149.00. At present, delinquent taxes amounting to \$560.00 are owed. Could a company delinquent less than \$600.00 in taxes be expected to manage and finance such a potentially high liability enterprise? In 1980, Warren County, Missouri, compiled an extensive report on the past activities of the Rickano Corporation and its principals, being Fred Beierle and James Harvey, who are the principal owners of the Carey Salt Mine in Lyons. The lengthy report outlined such infractions as the following:

1. Large quantities of radioactive material sent to the site for burial were diverted from the site for private use.
2. Large quantities of hand tools, clocks, and compasses were received in containers for burial as radioactive waste. These containers were opened and employees were allowed to take what they wanted.
3. Steel tanks were emptied and reused by local farmers and homeowners.
4. Liquid radioactive waste was dumped into trenches without undergoing the solidification process.

There appears to be a definite weakness in the monitoring process, both immediate and long-range. Only 24-hour monitoring by an individual not subject to human frailty could prevent procedural deviance, tampering, or misappropriation of contaminated articles such as tools. The uniqueness of the non-retrievable condition of the mine depository makes the monitoring of even subtle changes more complicated, if not impossible. As citizens of Kansas, we are appalled and reluctant at the prospect of acquiring ownership of the facility and assuming potentially catastrophic liability and maintenance expenses for an infinite period of time.

February 2, 1987

To Whom It May Concern:

The citizens of the City of Tipton and citizens of the surrounding community of Tipton are greatly concerned with bill number 2108 which concerns low-level radioactive waste being placed in a dump site surrounding our community. Low-level radioactive waste will contaminate our water supplies and eventually drive citizens out of our farming and ranching community.

The City of Tipton depends on three shallow wells for their water supply with a helper system from the Mitchell County Rural Water District No. 2. Our wells range from 38ft. deep, with water only 22ft. from the surface, to 56ft. and 42ft. with water being only 18ft. below the surface. The water from the water district comes from Waconda Lake, which has feeder creeks and streams that come from all of the proposed areas for the dump site.

We are also concerned with the transportation and possible accidental spills of radioactive waste in our area, because if this would occur, we would have no means for cleaning up nor do we have financial means for taking care of such a terrible incident.

We are extremely against such a dump site in our area or in the entire state of Kansas because of it's effect on human life, resources, and the already poor farm economy.

The citizens of Tipton and the surrounding community thank you.

Sincerely,

Vigil R. George



PUBLIC POLICY STATEMENT

HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES

RE: H.B. 2050 - Radioactive Materials in Bedded Salt Formations
H.B. 2108 - Disposal of Radioactive Waste

February 3, 1987
Topeka, Kansas

Presented by:
John K. Blythe, Assistant Director
Public Affairs Division
KANSAS FARM BUREAU

Mr. Chairman and Members of the Committee:

I am John K. Blythe, Assistant Director of the Public Affairs Division of Kansas Farm Bureau. These brief comments are on behalf of the farmers and ranchers who are members of Farm Bureau in Kansas.

The Kansas Farm Bureau is organized in all 105 counties with Boards of Directors and committees in each county. A most important activity of the Kansas Farm Bureau and the 105 county Farm Bureaus is the **development of policy** for the organization.

Policy development begins at the county level with the county policy committee. The suggestions and ideas for policy are sent to the State Resolutions Committee -- tentative resolutions are drafted by the Committee and are sent to the 105 county Farm Bureaus for their review and consideration prior to the Annual Meeting of the Kansas Farm Bureau. The voting delegates elected in each county meet at the Annual Farm Bureau Meeting where all issues are discussed and voted upon as policy for the organization.

Mr. Chairman, I review this procedure simply to indicate the elaborate process of policy development of the Farm Bureau and the opportunity for input from the total membership. It was through this process that a statement relating to **Hazardous Waste Disposal** was adopted by the voting delegates as policy for 1987.

Our Farm Bureau members have a deep concern for the quality and safety of our environment, our soil, our water and the air that we breathe. It was after much discussion by the State Farm Bureau Resolutions Committee and the full delegate body that the following Farm Bureau policy on **Hazardous Waste Disposal** was adopted:

Hazardous Waste Disposal

Storage, identification, packaging, transportation, and disposal of hazardous waste materials must be adequately researched and developed to insure safety for Kansas citizens and the natural resources of this state.

We believe the Governor and the Kansas Legislature working cooperatively, in order to provide for safe storage and disposal of hazardous wastes, should assure that:

1. Kansas does not become a dumping ground for waste materials coming from other **states or nations**;
2. Only qualified, technically-competent persons, corporations, or entities are granted authority to develop a site or sites for disposal or storage of radioactive or other hazardous wastes, with such entity being fully liable for safe operation of such site or sites;
3. There is adequate protection against escape, dispersion or erosion of hazardous waste into the soil and waters surrounding any disposal site; and
4. Operators of such sites shall be bonded for \$3 million to compensate adjoining landowners in case of escape or dispersion of such waste.

Thank you for the opportunity to present this policy and these few comments to the Committee.

Kansas Natural Resource Council

Testimony before the Energy Subcommittee
of the House Energy and Natural Resources Committee
In Support of HB 2050 and HB 2108
concerning disposal of radioactive waste
February 3, 1987
by Marsha Marshall

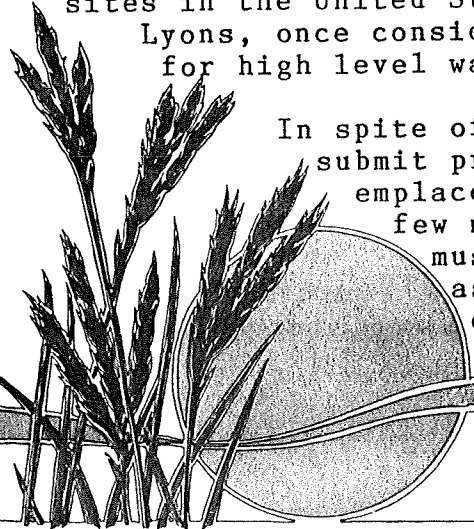
The Kansas Natural Resource Council is a nonprofit public interest organization that promotes sustainable energy and natural resource policies and practices.

Both radioactive waste bills before you address two methods of disposal, which is defined in PL 99-240 as "permanent isolation". The federal law only addresses low level wastes, but these two bills were drafted in response to growing concern that Kansas is the leading candidate for the first low level radioactive waste site in the Central Interstate Compact region.

In my view, designing a facility for permanent isolation of low level wastes through either burial or emplacement in bedded salt formations is a highly unrealistic performance objective, for three reasons:

1. Longevity of low level wastes. The hazards "low level" wastes far exceed the thirty year design life of proposed low level compact dumps. For example, cesium 137 in ion exchange resins produced by nuclear power plants must be kept isolated from the environment for 300 years. Reactor internals from decommissioned reactors include niobium 94, with a 20,000 year half-life.
2. Lack of experience. The compact anticipates disposing of decommissioned reactors in waste facilities (Nebraska and Arkansas both have plants that could be decommissioned during the first thirty years.) Yet a commercial sized nuclear reactor has never been decommissioned. In fact, commercial nuclear reactors have only been in existence for 30 years.
3. Poor disposal track record. Three of the six commercial burial sites in the United States have been shut down. (See fact sheet) Lyons, once considered by federal authorities as the ideal site for high level wastes, was rejected because of geologic flaws.

In spite of these problems, developers are expected to submit proposals for certain forms of burial and emplacement of wastes in Lyons salt mines in the next few months. If Kansas is chosen as a host state, it must take title to the site, and could be forced to assume liabilities for site failures after the design life of the facility.



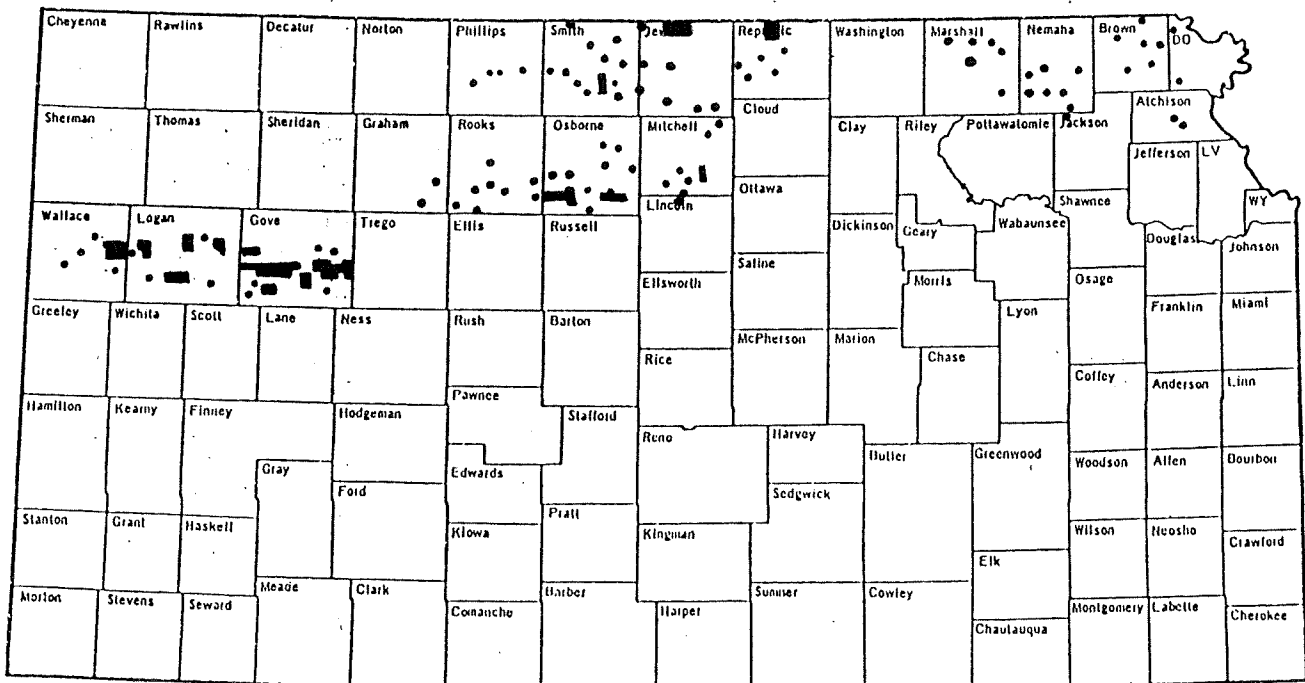
House Subcommittee on Energy
2-3-87 #8

While these bills do not set out a plan for how the state of Kansas could best manage its radioactive wastes, they nevertheless identify and prohibit two untenable disposal options. I urge your support for both pieces of legislation.

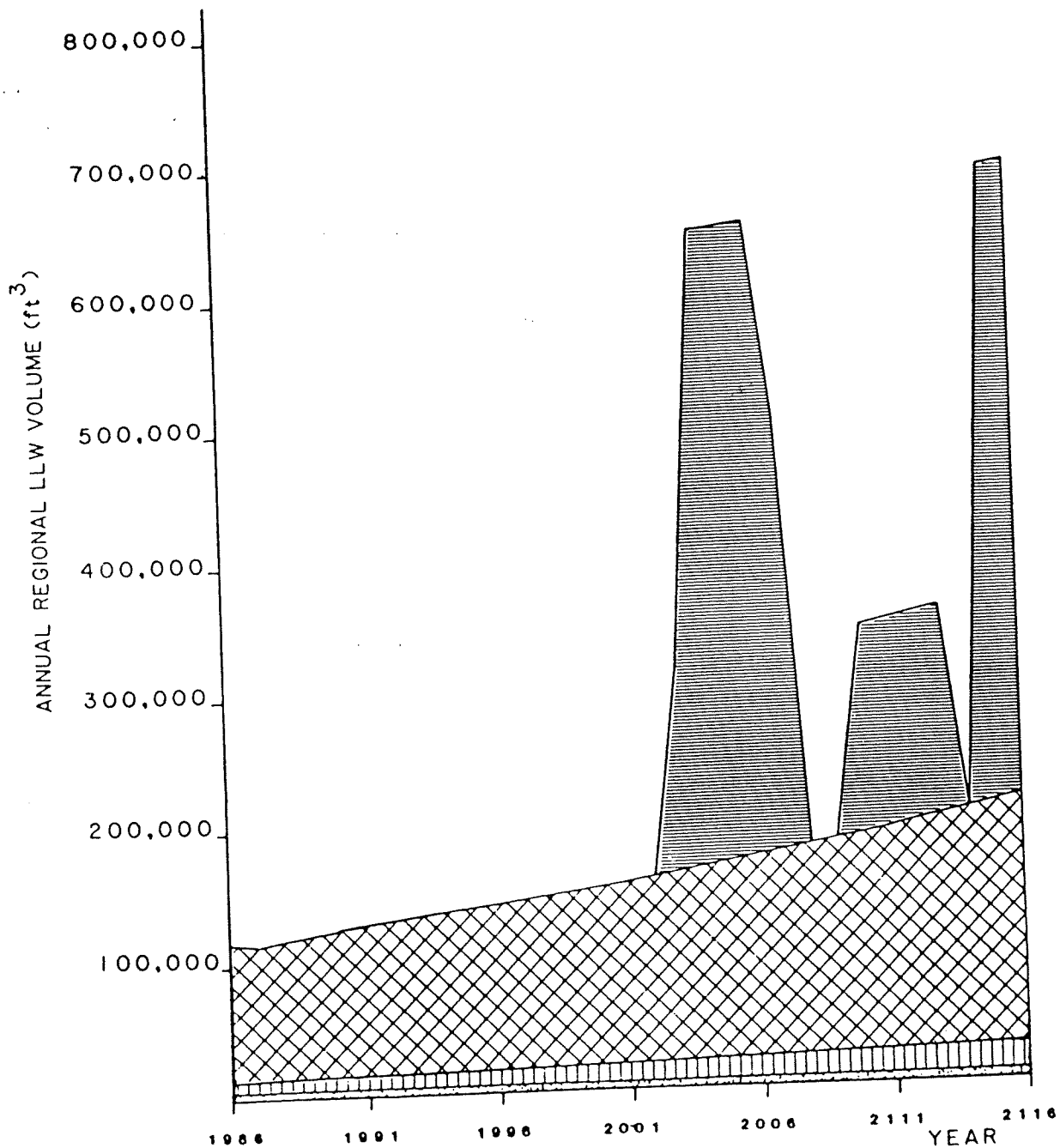
Figure 1

For your further information, a November draft of the Dames and Moore Phase II study identifies 18 Kansas counties with "preferred siting areas." (not counting Rice county) Nebraska has 10 counties with psa's, Arkansas has 2 counties, Louisiana has one, and Oklahoma has none. Below is a map indicating the approximate location of "preferred siting areas" in Kansas.





KNRC Graphic



ANNUAL REGIONAL LLW GENERATION RATE - PLANNING SCENARIO



LLW GENERATION SOURCE:

-  REACTOR DECOMMISSIONING
-  OPERATING REACTORS
-  INDUSTRIAL
-  INSTITUTIONAL

NOTE: ASSUMPTIONS DISCUSSED IN SECTION 3.0

DAMES & MOORE

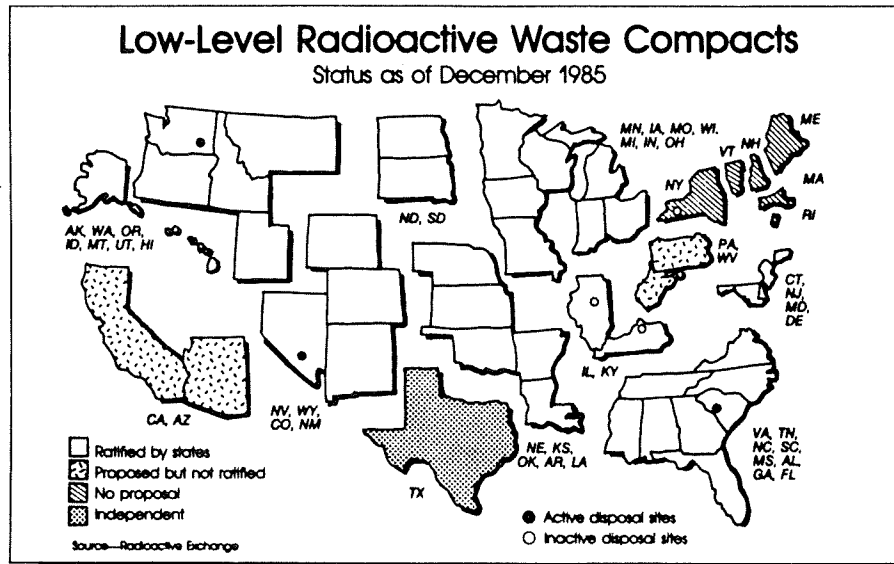
FIGURE 4

Kansas Natural Resource Council

FACT SHEET ON LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

Why does Kansas need to find a low-level radioactive waste site?

In 1980, Congress passed the Low-Level Radioactive Waste Policy Act, requiring states to develop their own LLRW disposal sites. The act also strongly encourages states to form regional compacts to jointly choose a site.



What has Kansas done to meet this need?

1982: Kansas entered into the Central Interstate Compact with Nebraska, Oklahoma, Arkansas, and Louisiana. These states created the Central Interstate Compact Low-Level Radioactive Waste Compact Commission. The Secretary of the Department of Health and Environment is the voting member from Kansas.

1985: Phase I of a site exclusionary study, based on the assumption of shallow land waste burial, was presented to the Compact in June. Kansas has areas in 32 counties being considered for the disposal site. Oklahoma has 6 counties in the running; Louisiana, 15; Arkansas, 17; and Nebraska, 39.

Congress ratified the Central Interstate Compact in December.

Is shallow land burial an appropriate disposal option?

Of the six LLRW sites in the U.S., three have been shut down.

- * Sheffield, IL, 1967-1976: Closed because of erosion and water migration beneath the site.
- * Maxey Flats, KY, 1963-1977: Closed because water from heavy rains overran the trenches. Cost to the state will be \$35 million to contain the problem.
- * West Valley, NY, 1963-1975: Shut down due to heavy rains flooding the trenches.
- * Hanford, WA, and Beatty, NV, both in dry climates, have no reported migration. Barnwell, SC, the largest site, has a relatively good record.

Many states are considering alternatives to shallow land burial.

- * Kentucky and Illinois, two states with experience in LLRW disposal, stipulate in their compact a method OTHER THAN shallow land burial.
- * Texas, New York, Pennsylvania, and the DOE facility in Oakridge, Tennessee, prohibit shallow land burial. Massachusetts is seeking prohibitive legislation.

Should low-level radioactive waste be redefined?

LLRW is presently defined by what it is not: high-level radioactive waste, i.e., spent fuel rods; most transuranic elements (isotopes heavier than naturally-occurring uranium); and re-processing liquids.

Consequently, LLRW includes such elements as iodine 129 (hazardous life: several million years), cesium 137 (hazardous life: 300 years); strontium 90 (hazardous life: 280). A material's hazardous life is determined by multiplying its half-life by 10.

Who is responsible for low-level radioactive waste?

- * Raymond Peery, director of the Compact Commission to which Kansas belongs, estimates that 90% of the LLRW will come from the 7 nuclear power plants in the 5-state region.
- * The remaining 10% is produced by hospitals, universities, and industry.
- * Most of the waste produced by hospitals has a hazardous life of 60 days.
- * The LLRW site planned for our compact will be responsible for waste disposal for 30 years. Then, another site will be chosen--for the next 30 years.
- * The question of liability in the case of an accident is still unanswered. There is an exclusion on personal property insurance policies for radioactive exposure. Also, the insurance industry refuses to insure waste industries.

This fact sheet was prepared by the Kansas Natural Resource Council, a statewide nonprofit membership group promoting sustainable natural resource policies. Free brochure and newsletter available upon request.



nuclear · awareness · network

1347½ massachusetts · lawrence, kansas 66044 · (913) 749-1640

My name is Stevi Stephens and I am the Director of the Nuclear Awareness Network in Lawrence, Kansas. I thank you for the opportunity to speak before you here today.

This committee took a leadership role two years ago in passage of HB 2927, which protected rate payers saddled with the cost of Wolf Creek. It was a step for which Kansas has received nationwide attention as a progressive, innovative and responsible state. I am hopeful that this committee will, once again, take the leadership role in protecting the health, safety and welfare of its citizens and the Kansas environment by disallowing the ground burial, or emplacement in salt formations, of radioactive waste.

When Congress ramrodded the federal Low Level Rad Waste Policy Act through in the final week of the 1980 session, they were extremely short-sighted and overly optimistic. They envisioned a neat patch-work of waste compacts across the country and overlooked three major obstacles.

House Subcommittee on Energy
2-3-87 #9

The first obstacle is public opposition:

The public is no longer naive about hazardous and radioactive dumps, and the closer dumps are to becoming reality, the more informed, outraged and resistant they will become. The radioactive

waste industry has an almost inconceivably dismal history. Every waste dump in this country has suffered from serious off-site contamination. The operators have been totally irresponsible to the communities they disrupt and contaminate. Nuclear waste dumps are an abysmal failure. Kansas must be responsible and acknowledge that it cannot meet the statutory definition of disposal in the Low Level Waste Policy Act which mandates permanent isolation of radioactive waste. No technology exists to comply with this provision; the Kansas legislature must face this reality. Nuclear waste cannot be safely and permanently disposed of. If indeed the intent is to protect the health and safety of citizens and the environment-- above ground monitored storage is the only reasonable and acceptable alternative until a truly safe permanent disposal method is developed. Kansas should not allow nuclear waste to be buried.

The second obstacle is state cooperation.

Obviously the spirit of cooperation is admirable; however, no state wants a nuclear waste dump for their own waste, let alone that of three or four other states'. The compact was entered into by most states as a gamble...in hopes of reducing their odds of being chosen as a host state. Kansas took that gamble, and now it appears we have lost. Kansas has the only proposed waste site within the compact region and we have the only dump site already owned by a developer. Unique to our compact, it allows the developer, not the state to choose the dump site and the technology. Although it is incumbent on the developer to meet

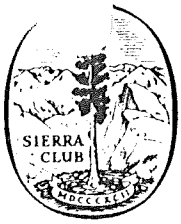
certain criteria, I am outraged that this state is delegating its responsibility to a developer. The developer/owner of the abandoned salt mine under the town of Lyons has owned this site for almost a decade, and has invested close to half a million ^{one x 1/2} dollars in it. To imagine that there will not be intense pressure on the Commission by this developer to license Lyons as a dump is ludicrous, particularly when no other site proposal exists and the other states within the compact are advocating that Kansas be the host state. This legislature must take the responsibility to establish safe and responsible policy for storage of its low level radioactive waste and not allow Baton Rouge, Louisiana or Little Rock, Arkansas to dictate Kansas policy. Nor can we allow the same developers, who have an abominable public record of scattering and leaking nuclear waste across the country, to contaminate Kansas. Once again, burial of radioactive waste is unacceptable.

And the third obstacle is technology:

Until the public and the public's representatives put enough pressure upon the nuclear waste industry to develop a safe alternative to nuclear waste dumps they will never take the initiative to do so. The nuclear waste industry dumps and runs. Now that decommissioning of nuclear reactors will represent a large portion of the waste dumped, Kansas must be prepared for an even more serious potential contamination problem. Reactor internals, considered low-level waste, is part of the anticipated waste to be dumped. These are radioactive for 20,000 years. The proposals under the Compact for burial of radioactive waste allows

the developer's responsibility to end after 35 years and anticipates the states monitoring responsibilities will end after 100 years. This is not only unrealistic, it is also irresponsible to future generations of Kansans. The only way to avert major contamination and population exposure to these deadly elements is to disallow below ground burial, including emplacement in the Lyons mine. Below ground burial has not, will not and cannot be construed to be safe, permanent isolation. It is only an expedient means to an ultimate catastrophe.

This legislature must acknowledge the fact that ground burial of radioactive waste is not an acceptable means to protect the health safety and welfare of Kansas citizens or the environment of Kansas. I urge this committee to take a leadership role, once again, and make such protections your priority. I urge your passage of HBs 2050 and 2108 which will disallow the ground burial of radioactive waste and its emplacement in salt formations, as a means to that ends.



SIERRA CLUB

Kansas Chapter

February 3, 1987

To: House Energy and Natural Resources Subcommittee
From: Shaun McGrath

re: Support for HB2108 prohibiting the underground burial of radioactive waste, and support for HB2050 prohibiting the emplacement of radioactive waste in bedded salt formations

The Sierra Club is a non-profit organization concerned with the preservation and protection of wildlife and the environment. Our Kansas Chapter membership is over 1500.

The Sierra Club has been involved in the issue of radioactive waste disposal since 1978 when the Sierra Club Radioactive Waste Campaign was formed. I have personally been involved in the issue for two years, attending Compact Commission meetings, advisory committee meetings, various lectures and an international symposium in Chicago hosted by the Illinois Department of Nuclear Safety on alternative technologies to low level radioactive waste disposal.

The two bills before you today clearly address the heart of the low level radioactive waste (LLRW) issue: What is the safest and most responsible manner to store LLRW? Although the bills introduced by Representatives Roe and Fry do not offer specific solutions to this problem, they narrow the field of possibilities by effectively eliminating methods which have been proved inappropriate, and in some instances, hazardous to the environment.

The history of LLRW storage in landfills in the U.S. gives credence to the argument of prohibiting the burial of such waste. Of the six commercial radioactive landfills which have operated in the U.S., three are now closed because of problems. All three have had water infiltration into trenches, subsidence of trench covers and erosion. At each site, radioactivity has migrated and expensive remedial actions are continuing. Rather than stabilized, maintenance-free landfills, the sites have required active maintenance within ten years of trench closure.

The record of hazardous waste burial in Kansas, as this sub-committee is well aware, further supports the argument to include radioactive materials in with the current ban on hazardous waste burial.

The idea of storing radioactive waste in salt mines should also be carefully considered. Salt is extremely water soluble, is highly corrosive, and does not hold the radionuclides effectively. When salt is heated, water is attracted to the heat sources, such as canisters of radioactive waste. Water moving through the salt becomes brine. When this brine reaches the radioactive waste materials, the glass or ceramic waste forms will break down and the radioactive materials will leach out. It has only recently been recognized that this leaching can occur in months, rather than thousands of years, as had been previously assumed.

The possibility of such pollution coming from the Lyons salt mines seems very likely considering the findings of an EPA study. The

report on the mines reads, "considerable volumes of water migrated in an unpredicted manner...as a consequence of dissolution of salt by ground water seeping into the repository. Seepage was along an abandoned drill hole that, like most, had not been cased and plugged."

The most convincing argument for passing these two bills concerns our relationship to the Compact. As now, the Compact Commission will chose a developer who then designates the method of storage. By passing HB2050 and HB2108, you will take the process of determining the method of LLRW storage in the state of Kansas out of the hands of the developer, and place it in the hands of the state.

Thank you for hearing my concerns today.