

Approved 3-30-87
Date

MINUTES OF THE SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES

The meeting was called to order by Senator Merrill Werts at
Chairperson

8:00 a.m. ~~XXX~~ on March 20, 1987 in room 123-S of the Capitol.

All members were present except:

Senator Eric Yost

Senator Audrey Langworthy

Senator Norma Daniels

Committee staff present:

Ramon Powers - Research

Don Hayward - Revisor

Nancy Jones - Secretary

Conferees appearing before the committee:

Chip Wheelan, Waste Management Inc.

Randy Pitre, Cities Service

Harold Spiker, Kansas Department of Health & Environment

James Power, Kansas Department of Health & Environment

Hearing continued on:

HB 2108 - Concerning radioactive and hazardous waste

Chip Wheelan stated there is a distinct separation of laws governing hazardous waste and radioactive waste as qualities are different. A substitute draft for HB 2108 was submitted by Mr. Wheelan which would attain the same objectives as HB 2108 by amending KSA 48-1620. Mr. Wheelan feels there will be less legal confusion with this language in the nuclear energy development statute. (Attachment A)

Randy Pitre gave testimony regarding naturally occurring materials with low levels of radioactivity which have not been properly addressed in HB 2108. An undue burden will be imposed on industries to dispose of these materials as burial would be prohibited. Properly handled, these materials have posed no problems. Mr. Pitre requests HB 2108 be amended to grant an exception for materials containing naturally occurring low levels of radioactivity. (Attachment B)

Mr. Power stated under this legislation, materials which come to the surface in the oil and gas industry would have to be handled as any generator of radioactive waste. If existing storage facilities do not meet regulations now under consideration, the possibility exists that removal would be necessary. Acceptable levels of radioactivity of materials to be buried were discussed.

Discussion held on:

SB 114 - Concerning low level radioactive waste

Questions were submitted to James Power by Senator Werts. Mr. Power stated if Kansas withdraws from the Compact, selection process of a site would involve geological and soil study, a lengthy public relations program and securing of consent from local citizens of a site area. Under Compact membership, the contractor would not have the power of eminent domain but that power might be available if Kansas would operate its own LLRW facility. KDHE could not both license the site and be the developer, so the Department would recommend the creation of a State LLRW Authority to oversee the facility site. Should the state be the operator, criteria for site selection would be more strict than those of Dames & Moore; certain geological and soil characteristics would be sought in locating a site and transportation needs considered to provide the optimum in safety. It was estimated the organizing and implementing of an LLRW Authority might require six months. 60 to 90 days would be needed to select a developer and another six months for the design of a facility plan. The area required for a site to store waste generated in Kansas

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES,
room 123-S, Statehouse, at 8:00 a.m./~~xxx~~ on March 20, 1987

over the next 30 years was estimated to be 600 to 1,000 acres. The developer selected by the Compact Commission in June, 1987 will conduct a Phase III study as the technology to be used will already have been determined by the contractor. (Attachment C)

Should Kansas not meet federal time table deadlines for implementation of LLRW disposal or storage, a surcharge could be levied by out-of-state facility which accepted Kansas generated waste. The Dames & Moore criteria would not necessarily be used should Kansas withdraw from the Compact.

Chairman Werts proposed a bill be drafted establishing a Kansas LLRW Authority to permit the state to own and operate a disposal facility.

Staff was requested to draft such a bill with consideration being given to current law in Maine and Texas; also, statutes governing the Kansas Turnpile Authority.

Meeting adjourned. The next meeting will be March 24, 1987.

Senate Energy - Guest List

3-20-87

John Blythe	Manhattan	Ks. Farm Bureau
Mary Ann Bradford	Topoka	League of Women Voters KS
James Power	Topoka	KDHE
David Spiker	Topoka	KDHE
Mary Thompson	Topoka	KDHE
Chp Wheeler	Topoka	Waste Management, Inc.
Bill Martin	"	Ks Petroleum Council
Randy L. Pitre	Tulsa, Okla	Cities Sewer Div Gas Corp
J. ROGER KELLEY	OKLAHOMA CITY	SUNEXP/MOGA
Jerry Conrad	TOPEKA	KGSSE
Ganus Lee	Kensington	citizen
Ron Shueck	TOPEKA	KS. RURAL CENTER

draft
SUBSTITUTE for HB 2108

AN ACT concerning radioactive waste; relating to the disposal thereof; amending K.S.A. 1986 Supp. 48-1620 and repealing the existing section.

Be it enacted by the Legislature of the State of Kansas:

Section 1. K.S.A. 1986 Supp. 48-1620 is hereby amended to read as follows: 48-1620. The hazardous waste disposal facility approval board shall review and grant or deny final approval for each ~~commercial low-level~~ radioactive waste disposal facility license in the same manner as provided in K.S.A. 65-3433 et seq., and amendments thereto except that the hazardous waste disposal facility approval board may not approve any radioactive waste disposal facility license permitting the underground disposal of radioactive waste. } add
add storage

Section 2. K.S.A. 1986 Supp. 48-1620 is hereby repealed.

Section 3. This act shall take effect and be in force from and after its publication in the statute book.

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Energy
3-20-81

TESTIMONY ON HOUSE BILL 2108
Senate Natural Resources Committee
March 20, 1987

GOOD MORNING. MY NAME IS RANDY PITRE. I AM EMPLOYED IN THE SAFETY, ENVIRONMENTAL & HEALTH DEPARTMENT OF CITIES SERVICE OIL & GAS CORPORATION.

CITIES SERVICE HAS ALWAYS BEEN ONE OF THE LARGEST PRODUCERS OF OIL AND GAS IN KANSAS. OUR COMPANY HAS BEEN WORKING IN KANSAS FOR OVER SEVENTY YEARS AND LOOKS TOWARD A GOOD FUTURE HERE AS WELL. WE HAVE 291 KANSAS CITIZENS EMPLOYED IN FORTY-FOUR PRODUCTION SITES AND GAS PROCESSING FACILITIES THROUGHOUT THE STATE.

I AM APPEARING NEITHER AS AN OPPONENT NOR A PROPONENT OF THIS LEGISLATION. I AM HERE THIS MORNING TO CALL YOUR ATTENTION TO SOME ASPECTS OF HOUSE BILL 2108 THAT ARE NOT APPARENT. IN PARTICULAR, I WOULD LIKE TO DISCUSS MATERIALS WHICH CONTAIN NATURALLY OCCURRING LOW-LEVELS OF RADIOACTIVITY.

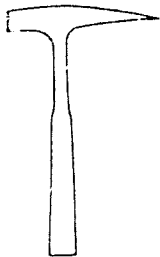
THE EXISTENCE OF NATURALLY OCCURRING LOW-LEVELS OF RADIOACTIVITY IN A VARIETY OF MATERIALS MAY CREATE AN UNDUE DISPOSAL BURDEN FOR MANY INDUSTRIES IN THE STATE OF KANSAS IF THIS BILL PASSES AS NOW WRITTEN. NATURALLY OCCURRING LOW-LEVELS OF RADIOACTIVITY HAVE ALWAYS BEEN IN THE SOIL AND AIR AS A NATURAL PRODUCT OF THE RADIOACTIVE DECAY OF CERTAIN ROCKS. THERE ARE MANY MATERIALS ALL AROUND US WHICH CONTAIN THIS NATURALLY OCCURRING LOW-LEVEL RADIOACTIVITY. SHOULD HOUSE BILL 2108 PASS IN ITS PRESENT FORM, BURIAL OF MATERIALS CONTAINING NATURALLY OCCURRING LOW-LEVEL RADIOACTIVITY WOULD BE PROHIBITED.

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NATURALLY OCCURRING LOW-LEVEL RADIOACTIVITY COULD BE FOUND IN GROUNDWATER, PHOSPHATE ROCKS, ALLOYS OF MAGNESIUM, CONSTRUCTION MATERIALS SUCH AS PUMICE, CLAY, BRICK, CONCRETE, ROAD PAVING MATERIALS AND GRANITE -- WHICH BY THE WAY, IS A PREDOMINANT FEATURE OF THIS BUILDING. IN OIL AND GAS OPERATIONS, NATURALLY OCCURRING LOW-LEVELS OF RADIOACTIVITY MAY BE PRESENT DUE TO THE GEOLOGY OF SOME PRODUCING ZONES. PROPERLY HANDLED, THESE MATERIALS CONTAINING NATURALLY OCCURRING LOW-LEVELS OF RADIOACTIVITY POSE NO PROBLEM.

WE RESPECTFULLY REQUEST THAT HOUSE BILL 2108 BE AMENDED TO ALLOW THE K.D.H.E. THE AUTHORITY TO GRANT AN EXCEPTION TO THE PROHIBITION ON THE BURIAL OF MATERIALS CONTAINING NATURALLY-OCCURRING LOW-LEVELS OF RADIOACTIVITY GENERATED IN KANSAS.

IF YOU HAVE ANY QUESTIONS REGARDING MY STATEMENT, I WILL BE HAPPY TO TRY TO ANSWER THEM.



KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66046-2598
913-864-3965

June 14, 1985

Barbara Sabol
Secretary, Kansas Department of
Health & Environment
Building 740, Forbes Field
Topeka, KS 66620

Dear Secretary Sabol:

At your urgent request because of tight time restraints, I have quickly but thoroughly reviewed the draft of the Phase I Site Suitability Study of the Central Interstate Low-Level Radioactive Waste Compact area prepared by Dames & Moore, Inc.

The first part of the study, a series of computer-generated maps at 1:1,000,000. scale was designed to exclude areas from consideration based on general criteria from U.S. Nuclear Regulatory Commission guidelines and others determined by the consultant. From this, areas of the compact states which were not excluded were then designated as candidates for more detailed screening on 1:250,000 scale. It is interesting to note that on the basis of the broad criteria, it was determined that suitable candidate areas in Nebraska comprised 42.0 percent of the five state region, Kansas 40.4 percent, Oklahoma 4.7 percent, Arkansas 7.0 percent and Louisiana 6.0 percent (section 4.1.0, pages 4-1 and 4-2, vol. 1).

In section 4.1, and following, the designated candidate areas were then screened for more detailed mapping at 1:250,000 scale according to further criteria determined by the consultant. These criteria are tabulated on page 4.20, vol. 1.

The rationale for the detailed delineation of favorable or unfavorable areas within the candidate areas themselves begins on page 5-1, with Kansas discussed on pages 5-4 to 5-10.

The kernels of the study and report are in Vol. 2, which contains the various derivative maps compiled by computer methods and the detailed 1:250,000 scale maps of each of the designated candidate areas in the five states. The areas in Kansas are shown on plates 5-5, -6 and -7 contained in the third bound envelope at the back of Vol. 2. The envelopes are not labelled and you will find only three plates in the Kansas envelope. Area 3 was arbitrarily and wrongly deleted, in my opinion, because it was similar to area 2, a fact that you would not know unless you read through the preceding, somewhat voluminous and redundant material.

E. E. E.
3-20-87

Barbara Sabol
July 14, 1985
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The same comment applies to the interpretation of the maps themselves. For example: refer to Area K-1, Plate 5-5 which is in northeastern Kansas. The dark wiggly lines either contain or exclude (depending on which side the Ngd symbol is on) areas that are deemed to be geologically suitable or unsuitable. In this case those labelled Ngd are considered suitable. The moderately heavy straight black lines (or in the case of counties bordering the Missouri river, a sinuous black line along the channel) denote the boundaries of counties containing substantial deposits of "suitable" geologic material. The county lines are difficult to distinguish from highways, which have the same line width.

The circles enclose excluded buffer areas around towns, their diameter determined arbitrarily by population. The large arcs in the southeast corner of the map apparently are segments of large circles that swing around Topeka, Kansas City, Kansas and Missouri.

The very light lines with diagonal hachures adjacent to them delineate the boundaries of areas five miles to either side of U.S. highways. These areas were considered by the consultant to be more favorable for siting LLNW facilities because of proximity to improved roads, a rather arbitrary and questionable assumption, in my opinion.

Other patterns, either dots or dots and paired dashes denote known or developed natural resources.

In order to make sense of this, it is almost necessary to hand color the map, which I did, with difficulty. It took me about five hours to winnow through the report to find the essential information needed to understand how the maps were derived and what they mean. It would have taken longer if I hadn't already had past experience wading through such things on previous occasions. I may be experienced at the process but I am not inured to it.

Having said that, I apologize for the earlier parts of this letter which are useful mainly to guide you through this stuff and to document how and why I reached the following conclusions.

First, I question the broad generalizations that were used in making some of the initial decision, (for example) to exclude large areas of Oklahoma, Arkansas and Louisiana because of complex geology and geohydrology while including areas in Kansas and Nebraska which are underlain by glacial deposits. The latter are much more complicated and unpredictable on a finer scale and will require considerable detailed and expensive shallow subsurface exploration to confirm the

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suitability or unsuitability of individual proposed facility sites. Further, the glaciated areas of eastern Kansas and Nebraska are generally prime agricultural land and the groundwater contained in the deposits is of great potential importance to those more densely-populated eastern areas of both states. It is my strong opinion, backed up by other experienced professionals on the KGS staff, that the glacial drift areas should not be considered on a broad basis.

Quite frankly, it appears to me that the generalizations were made mainly to expedite the construction of the computer-derived factor maps, a decision that too often enters into such things. Because Kansas and Nebraska have more detailed and more readily available maps, ~~the~~ data is easier to use. The initial decision excluding southeastern Kansas is another case in point. There are several geologic shale units that probably are suitable and are relatively near our major metropolitan areas and nuclear reactors, but they were thrown out with the dishwasher, so to speak.

Secondly, in Kansas, the decision to not consider area 3 on fine screening because its geologic and hydrologic characteristics are similar to area 2 is not sufficient justification, in my opinion, and certainly would be grounds for objection by those interested individuals in area 2. Again, this appears to have been an arbitrary decision in order to expedite completion of the study.

Third, the consideration of relative suitability or unsuitability of locations within candidate areas on the basis of the diameters of circles around towns, population per hundred miles of highway and ten-mile-wide swaths along major highways is (again, in my opinion) highly artificial and of questionable value as screening criteria. The same would seem to apply to the assignment of relative desirability or undesirability based on the location of an area within a "centroid" determined by the location and size of nuclear power plant reactors. There are other types of LLW generated mainly in the metropolitan areas, which are excluded by their large circles.

The concept of nearness to highways, nuclear reactors or cities relates more to politics or economics of transportation than to safety in transportation and although these factors are important, they should be considered by firms looking for suitable sites to propose for development and are outside the scope of the study as outlined. I suggest that delineations based on these concepts be dropped from the final report unless they can be properly justified.

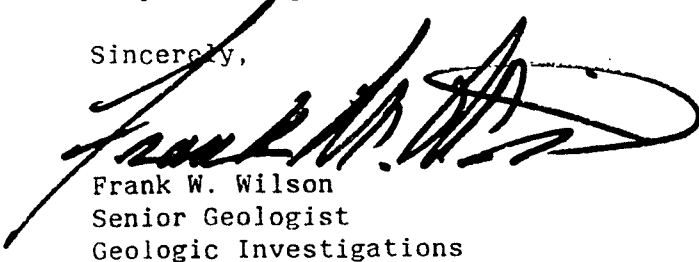
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To sum up, it appears to me that the study was more influenced by technique and the ready availability of data in some areas than on actual conditions. This tends to penalize states who have done their jobs well in the past. This practice results in a study and report cluttered with baffling details stemming from the use of census tract, geographic and demographic data while deleting or over-simplifying the important information.

If I were to design such a study (don't ask!), I would use a technique similar to the one we used to prepare a Land-fill Suitability Map for Kansas which was done partially for your Department (copy enclosed). On it we depicted the obviously- and readily-agreed-upon exclusion areas in red, the obviously- and readily-agreed-upon suitable areas in green and the areas that were questionable but which might contain suitable units, in yellow. The latter indicating that detailed studies should be made, not of the entire yellow areas but of those limited areas that were determined to be otherwise favorable in terms of proximity to transportation facilities (including rail, which was ignored in this study), sources of major waste products, etc. Those detailed studies are properly the business of proposed developers, not the states or their consultants, because the state regulatory agencies and their advising agencies will eventually have to review the individual proposals.

If you have questions, please call.

Sincerely,



Frank W. Wilson
Senior Geologist
Geologic Investigations

cc: William W. Hambleton, Director, Kansas Geol. Survey
Marvin P. Carlson, Assoc. Director, Nebraska Geol. Survey

Enclosure