

MINUTES OF THE Senate COMMITTEE ON Energy and Natural Resources

The meeting was called to order by Senator Charlie L. Angell at
Chairperson

8:00 a.m./~~xxx~~ on Tuesday, April 3, 1984 in room 123-S of the Capitol.

All members were present except:
Senator Richard Gannon (Excused)

Committee staff present:
Ramon Powers, Research Department
Don Hayward, Revisor's Office
LaVonne Mumert, Secretary to the Committee

Conferees appearing before the committee:
Gerald Allen, Kansas Department of Health and Environment
William Henry, Kansas Engineering Society
Barbara Sabol, Kansas Department of Health and Environment

Senator Werts moved that the minutes of the April 2, 1984 meeting be approved. Senator Roitz seconded the motion, and the motion carried.

Copies of written testimony of James Boyd, Vulcan Chemicals (Attachment 1) were distributed to the Committee.

H.B. 2760 - Nuclear energy development and radiation control act; amendments

Staff reviewed the bill, section-by-section, explaining the proposed changes from the present law. Gerald Allen answered questions from Committee members. Senator Rehorn requested a list of the companies having a license for low-level radioactive waste, and Mr. Allen agreed to provide such a list.

Senator Hess moved that H.B. 2760 be amended by changing line 722 to read: "classes of licensed activity involving low-level radioactive material, the secretary may establish by rule", and by changing line 742 to read: "activity when low-level radioactive material which will require surveil-". Senator Werts seconded the motion, and the motion carried.

H.B. 2740 - Hazardous and solid waste; amendments to the act

William Henry summarized his written testimony (Attachment 2). He said most of the concerns of the Engineering Society have already been raised by the Committee. They recommend that the bill contain hazardous "materials" as well as hazardous waste. They also recommend that the original language in lines 379 through 382 be reinserted so that there would be no requirement that fees be charged to transporters just passing through the state.

Barbara Sabol pointed out several suggested amendments to H.B. 2740.

Senator Hess moved that H.B. 2740 be amended as follows: by reinserting the stricken language in lines 253 through 259 and by adding the words "in effect July 1, 1983" at the end of line 259. Senator Feleciano seconded the motion, and the motion carried. Senator Feleciano moved that H.B. 2740 be amended by replacing the word "amendable" with the word "amenable" in line 192, and by changing line 291 to read: "within the state with the concurrence of the Kansas Department of Transportation.". Senator Gordon seconded the motion, and the motion carried. Senator Gordon moved that line 691 be changed to read: "its specific reason for denial in writing". Senator Hess seconded the motion, and the motion carried. Senator Werts moved that lines 854 and 855 be stricken from the bill. Senator Hess seconded the motion, and the motion carried. Senator Werts moved that line 876 read: "any other fuel intended for use by residential consumers or sell such blended fuel to a residential consumer.". Senator Vidricksen seconded the motion, and the motion carried. Senator Werts moved that the phrase "less than \$1,500" be stricken from line 394 and the phrase "more than \$10,000" be inserted. Senator Feleciano seconded the motion, and the motion carried.

The meeting was adjourned at 9:22 a.m. by the Chairman. The next meeting of the Committee will be at 7:30 a.m. on Wednesday, April 4, 1984.

Senate Energy & Natural Resources

April 3, 1984

<u>Name</u>	<u>Organization</u>
Robert C. Anderson	MidCont Oil & Gas
B. Stahl	KDH+E
Shawn Allen	KDH+E
Dennis Murphy	KDH+E
Ed Reinert	KS LWUS
Richard D. Kready	KPL/Gas Service Co.
JEFFY Cornell	KGE
Matt Selby	Service Club

TESTIMONY TO SENATE ENERGY AND
NATURAL RESOURCE COMMITTEEBY JAMES M. BOYD
PLANT MANAGER
VULCAN CHEMICALS - WICHITA PLANT

During the discussions on HB2725 and HB2726 currently before the Senate Committee on Energy and Natural Resources, concern was raised about the apparent high volume of hazardous waste generated by the Wichita Chemical Complex of Vulcan Materials in relationship to disposal fees. This apparent high volume of waste is directly due to Vulcan's use of deep disposal wells for waste water removal and is not a result of the degree of hazard present.

In 1976, prior to laws mandating that companies comply to certain environmental standards, Vulcan embarked on a comprehensive environmental plan working with the KDHE and outside consultants (Wilson & Co.). The construction for that plan was completed in late 1978 at a cost of 8.9 million dollars and formally dedicated in April 1979. The main features were: (1) the installation of an incinerator to destroy a solid waste by-product preventing the necessity of its burial at a hazardous waste site; (2) the complete separation of rain waters at the plant into two categories, those that fall on the process units and all others; and (3) the removal of all process or waste lines from under ground to overhead supports for early detection of any leaks. Since 1978, the Wichita Plant has spent an additional 3.5 million for environmental projects.

The basis of this environmental system is the use of deep well injection to remove from the plant any process or rain water that has had contact with the process equipment regardless of hazardous waste designation. The waste streams consist of large volumes of water from cooling tower blowdown, rainfall and various other waste waters with the main hazardous constituents being the pH nature of the material. Since separate acidic and basic materials are fed to the Arbuckle formation, the net effect on the formation brines is to introduce a variable acidic load to the formation. This is very similar to the acidizing of commercial oil wells.

The most important item to note is that mixing of this waste water with the naturally occurring brines produces a similar brine that presents no long term environmental hazard to the formation. This is further supported by the fact that Vulcan has successfully operated deep disposal wells at the Wichita Plant since 1957. The wells have proven to be the most economical means to dispose of unreclaimable waste water. Careful adherence to good operating practice has allowed the wells to function with a minimum maintenance and maximum reliability. The engineering design assures that the wells pose no environmental hazard. The wells are cased with concrete from ground level to the Arbuckle disposal zone. The section of the well that passes through strata potentially containing fresh water aquifers is multiply cased (See Fig. 1). The wells are carefully monitored to assure that they operate with a negative well head gage pressure and the well casings are periodically logged during maintenance of the injection piping string. The waste water that flows to the

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deep wells is ideal for disposal to the Arbuckle. The waste water contains low levels of suspended matter; is relatively free from entrained air; and does not contain materials that could polymerize, become viscous or otherwise plug the formation irreparably.

In addition to independent geological studies made by consultants for Vulcan, the Arbuckle formation has been evaluated by KDHE as a disposal formation. In a 1975 report, this evaluation was summarized as follows:

1. The Arbuckle is consistently the best formation for waste water disposal in Kansas. Very seldom is injection pressure required and the formation has an almost limitless capacity for fluid acceptance. There is no evidence of a "repressuring effect" being created by Vulcan's disposal operation. "Repressuring effect" refers to the influence one Arbuckle disposal might have on the static fluid level in another by the disposing of large volumes of waste liquid.
2. There is no Arbuckle oil production in the area of Vulcan's wells nor in T28S-R1W. Oil production is limited to the Mississippian sequence which bottoms 150-200 feet above the Arbuckle. This eliminated the possibility of Vulcan's waste water being returned to the surface by well withdrawal during oil production.
3. There are no known unplugged, improperly plugged, or abandoned holes within a two mile radius of Vulcan. The possibility of any being present is remote. The only holes which have penetrated the Arbuckle in T28S-R1W are Vulcan's disposal wells. Disposal wells No. 1 and 2 were plugged out in past years in accordance with state requirements.
4. The natural static fluid level of the Arbuckle formations rises to about 240 feet below surface, or below all known freshwater formations. This level presents no hazard from disposing into the Arbuckle, however, the level will be measured regularly.
5. Use of the Arbuckle formation for disposal of Vulcan's plant waste water is a satisfactory approach to the problem of waste discharge. No environmental hazards exist from its continued use as a disposal zone.

In conclusion, it is our opinion that deep well injection is a viable means of disposal for the State of Kansas and is properly excluded from prohibition in HB2725. This is a resource that should be permitted on a location by location basis, but not without control of the KDHE to evaluate the long term impact on the formation receiving the waste water. With controls established prior to injection, then Super Fund monies would not be required for remedial action.

TESTIMONY OF THE KANSAS ENGINEERING SOCIETY

2 April 1984

Kansas Senate Committee on Energy and Natural Resources

House Bill No. 2740

(As Amended by House Committee of the Whole)
As Further Amended by House Committee
As Amended by House Committee

The KES (Kansas Engineering Society) appreciates the opportunity to testify and make suggestions regarding H. B. 2740. We fully appreciate the importance of this bill to the Kansas hazardous waste program in furtherance of federal dictates. We also sympathize with the short time allowed this committee to study and make necessary corrections.

In hopes of assisting you in this task we have taken the liberty of suggesting specific language to be inserted in the bill for each of our recommendations.

1. KES has some concern over lack of control of hazardous "materials" as opposed to hazardous waste. There are many times more hazardous materials transported and handled in Kansas than there are hazardous wastes. We believe KDHE has general authority for containment and control of hazardous materials spills under water pollution control statutes. However, we do believe that specific authority should be provided to ameliorate accidents involving all hazardous materials.

We would like to recommend the committee consider giving additional authority to the secretary to prevent environmental damage from hazardous materials spills.

We recommend language similar to the following be inserted in the definition section.

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"Hazardous Material" means material or combinations of materials, other than hazardous waste, which may have a useful purpose and economical value but which because of its quantity, concentration, or physical, chemical, biological or infectious characteristics as determined by the secretary to be dangerous to human health or present a substantial existing or potential hazard to the environment when spilled or otherwise released to the environment.

When the secretary determines that a hazardous material is not recoverable for practical use when spilled or otherwise released to the environment, the material shall be deemed to be hazardous waste as defined in this act.

When the transporter or owner elects to recover for use a spilled or released hazardous material, such material shall be considered a hazardous waste until such time as recovery is complete and no longer presents a danger to human health or existing or potential hazard to the environment as determined by the secretary.

2. P. 5, line 192 - change "amendable" to amenable.
3. P. 7, lines 253-259 should be retained. The procedures for identifying hazardous waste is complex and can be highly controversial. Without the guidance contained in the stricken language, it would be possible for the secretary to reduce E.P. toxicity limits by a factor of ten as was attempted in the state of Missouri when a controversial incident arose. Fortunately, some individual pointed out that municipal softening sludge and virtually all waste would be classed as hazardous, and the change was dropped at the eleventh hour.
4. P. 8, lines 291-293. We are concerned with total elimination of KDOT from the transportation route approval. Our recollection that the intent of the stricken language was to provide some assurance that bridges, culverts,

and other similar structures are safe for support of waste transportation equipment. It is possible that under local pressures, the secretary might require circuitous routes which could take transporters over less than interstate roads. We would recommend that the secretary at least submit certain routes to KDOT for comment prior to final route approval.

5. P. 11, line 383 - "or" should be changed to and unless it is the intent to have fees imposed on only one of the three categories.
6. P. 10, lines 379-382. We would recommend that the original language "hazardous waste transporters transporting hazardous wastes in Kansas to hazardous waste treatment, storage, or disposal facilities located in Kansas, in other states or outside the continental United States; and" be reinserted. As amended, it would require the secretary to establish a transportation fee on transporters just passing through the state which would be extremely difficult and probably illegal.

Be reverting to the original language, the secretary would rely on the state of origin for transporter regulation just as other states now rely on Kansas when Kansas generated waste is transported to other states. If a fee on these transporters is a problem, it would not seem unreasonable for a slightly elevated treatment or disposal fee for receipt of out-of-state generated waste in Kansas. Such a reasonably elevated fee can be justified for additional paper work costs associated in cross checking and clearing records with the state of origin.