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THE STATE OF MISSISSIPPI
OFFICE OF THE ATTORNEY GENERAL

REVIEW COMMENTS ON DRAFT
ENVIRONMENTAL ASSESSMENTS
RICHTON DOME SITE
CYPRESS CREEK DOME SITE
MISSISSIPPI

MARCH 20, 1985

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STATE OF MISSISSIPPI
Office of the Attorney General

Edwin Lloyd Pittman
Attorney General

W. D. Coleman
Deputy Attorney General

Robert M. Arentson
Executive Assistant

March 20, 1985

DIVISION DIRECTORS

R. Lloyd Arnold
Governmental Affairs

A. Michael Espy
Consumer Protection

J. D. Gardner
Organized Crime

Stephen J. Kirchmayr
Civil Litigation

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Administration

Wayne Snuggs
Criminal Litigation

Frank Spencer
Public Interest Advocacy

Catherine W. Underwood
Opinion Processing

United States Department of Energy
1000 Independence Avenue, S.W.
Washington, D. C. 20585

Gentlemen:

The following are comments of the Mississippi Attorney General's Office on the Draft Environmental Assessment prepared for the Richton Dome site with limited comments provided for the Cypress Creek Environmental Assessment. These comments are made pursuant to Mississippi Code Ann. § 7-5-1 (1972), which gives the Attorney General of the State of Mississippi the common law power to legally represent any state agency. In addition to this, the Attorney General, by Mississippi Code Ann. § 52-49-23(1972), is given the authority to represent the state's interest in any judicial proceedings and present the state's point of view on matters related to the long-term or permanent disposal of high-level radioactive waste. For reasons set forth in this document, the Richton Dome and the Cypress Creek Dome should be eliminated from consideration as a nuclear waste repository.

Due to the limited period of comment time afforded by the Department of Energy, these comments should not be considered to be exhaustive in nature. Additional comments on the Cypress Creek and Richton Assessments will be submitted at a later date and we urge that these comments also be included and considered in the site selection process.

Sincerely yours,

EDWIN LLOYD PITTMAN
ATTORNEY GENERAL

BY

Mack Cameron
Mack Cameron
Special Assistant Attorney General

MC:db

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COMMENTS OF THE MISSISSIPPI
ATTORNEY GENERAL'S OFFICE ON THE DRAFT
ENVIRONMENTAL ASSESSMENT FOR THE RICHTON DOME SITE
AND THE CYPRESS CREEK DOME SITE

I. INTRODUCTION

The Richton Salt Dome site and the Cypress Creek Salt Dome site are being considered by the United States Department of Energy as possible locations for a nuclear waste repository. The following comments on the Draft Environmental Assessment for the Richton Dome site are being provided within the strict time constraints set forth by the Department of Energy for the filing of such comments. Due to the limited time allowed for such review, this document will focus primarily on the Richton Environmental Assessment.

II. STATEMENT ON PROCEDURES

Since the Department of Energy mandated that comment responses be provided by March 20, 1985, the Office of Attorney General is unable to provide detailed comment on both the Richton and Cypress Creek Environmental Assessments at this time. The untimely release of the Environmental Assessments on December 19, 1984, and the subsequent demand that all comments be provided by March 20, 1985, has created hardships for not only the Attorney General's Office but for all public bodies and individual citizens in Mississippi who may want to take part in the process.

Thus, the Attorney General's Office will be forced to provide only limited comments with respect to the Cypress Creek Environmental Assessment at this time. However, additional comments will be provided to the Department of Energy on the Cypress Creek Environmental Assessment along with those comments we have been unable to provide the Department for the Richton Environmental Assessment prior to March 20, 1985 due to time constraints so that hopefully the comments will be included and considered by the Department of Energy in the site selection process. The Richton Environmental Assessment was reviewed first primarily because of the inclusion of the Richton site as one of the top five sites.

Prior to setting forth the specific comments with respect to the Richton Environmental Assessment, a few points must be noted first. We strenuously object to timing by which the Department of Energy chose to make the environmental assessments available for comment. The environmental assessments were released six (6) days before Christmas Day in 1984 and the time period for comments included both the traditional Christmas and New Year Holidays. With the very limited time period for comment set forth by the Department of Energy, such an

action with respect to an event as crucial as this program is to the states and their citizens, who are also trying to participate in this program, is blatantly unconscionable. We find such timing to be seriously detrimental to the attempted participation by the State and its citizens in the siting process. Unfortunately, such action continues to demonstrate the unthinking manner in which the Department of Energy has dealt with the officials and citizens of Mississippi and other states in this program.

In addition to the time problem, we must also note that very few copies of the environmental assessments were made available to officials and private citizens of this state for a time well into the period allowed by the Department of Energy for comments. So, in addition to a delay in the preparation of comments caused by officials and citizens enjoying their annual Christmas and New Year holidays, once they had returned to their normal routines there were not enough copies of the environmental assessments available for review. Repeated requests yielded no additional copies until late into the comment period.

We also note for the record that even at the time these comments are submitted, which is the deadline set forth by the Department of Energy for comments to be

filed, the official representatives of the State of Mississippi still have not been provided all of the references by the Department of Energy for the environmental assessments. Clearly the quality and quantity of comments filed by the State of Mississippi and its citizens have been hindered by the actions of the Department of Energy.

In addition, during this same comment period the grant to the State of Mississippi provided for by the Nuclear Waste Policy Act and administered by the Department of Energy has been held in abeyance by the Department and has only recently been approved, that approval being for an amount equal to less than forty percent of what was requested. Those officials responsible for the nuclear waste program in Mississippi thus had the additional burden during this crucial comment period of also having to spend valuable time being concerned with attempts to discern how the grant money which was due them under the Nuclear Waste Policy Act could be obtained so that they could be secure in their work efforts.

Although no extension of time has been requested, especially since other states who requested extensions were denied, these comments are made with the reservation that all of the factors set forth above can have but one effect

on the comments made by this office and the state officials and citizens trying to participate in the programs. The effect has been without a doubt that the efforts to provide comments on the environmental assessments have been seriously hindered.

III. SPECIFIC COMMENTS

A. Population

It is the position of the Attorney General of the State of Mississippi that the provisions of the Nuclear Waste Policy Act prohibit the location of a nuclear waste repository surface facility "adjacent to" Richton, Mississippi. Section 112 of the Nuclear Waste Policy Act states that the siting guidelines required by that Section "shall specify population factors that will disqualify any site from development as a repository if any surface facility of such repository would be located (1) in a highly populated area; or (2) adjacent to an area one (1) mile by one (1) mile having a population of not less than 1,000 individuals."

The above language therefore makes it unnecessary for the Department of Energy to consider the Richton site as a location for a nuclear waste repository since the location of any surface facility would be adjacent to the town of Richton. The expenditure of any funds for site characterization would, in essence, be wasted because of the

language of the Nuclear Waste Policy Act. The Draft Environmental Assessment for the Richton Dome site states at page 3-119 that the 1980 population density (persons per square mile) for the town of Richton is 1,205.

The word "adjacent" means close, near or neighboring and does not imply contact. The legislative history of that particular wording of the Nuclear Waste Policy Act clearly shows that wording was intended to apply to Richton. Since Richton possesses the requisite population density and would be, in fact, adjacent to a surface facility at that site, the Richton Dome site should, by the clear intent of Congress as expressed in Section 112 of the Act and the guidelines for selection of a repository as they now read, be eliminated from further consideration.

In order that the people of Richton and the surrounding area may go on and lead their lives without fear of having their homes and their lands utilized against their wills or confiscated for Department of Energy purposes, it is absolutely necessary that the Department notify them of their elimination from further consideration due to the provisions of the Nuclear Waste Policy Act. The effect of the consideration of the Richton site, especially in view of the wording of the Nuclear Waste Policy Act, has been traumatic on the lives of not only the people of Richton but also of the surrounding area.

The turmoil caused by the consideration of Richton as a site for a nuclear waste repository was clearly evidenced during hearings on the environmental assessments in Mississippi. Many comments were made and, unfortunately, a near riot situation developed at one hearing in Biloxi attended by over four hundred people. This was exactly the type of event that the population language of the Act and the guidelines was supposed to prevent.

No other location under consideration has a site with a problem concerning as many people as the site at Richton. The people of Richton and of Mississippi do not deserve the interruption of their lives and the threats to their health and safety such as is caused by the consideration of the Richton site when provisions of the Nuclear Waste Policy Act prohibit the location of such a facility at that site. Without a doubt, people should receive every priority consideration possible when there are other locations which could receive a facility such as a nuclear waste repository without the drastic effect on the lives of those people such as will take place at Richton if a repository is located there.

The Mississippi Legislature, in an effort to protect its citizens, has passed an Act opposing the storage of

nuclear waste in Mississippi. (Section 17-17-49, Mississippi Code of 1972, as amended, attached as Appendix A). The Energy and Transportation Board, the official body of the executive branch of government with responsibility for this subject matter, has adopted a public policy in opposition to the storage of nuclear waste in Mississippi. (Appendix B). The provisions of the Nuclear Waste Policy Act prohibit a surface facility for a nuclear waste repository being adjacent to the town of Richton. We hope that the Department of Energy will comply with federal and state law and thus let the people of the Richton area proceed with the peaceful enjoyment of their lives.

Feeling it necessary to respond in the alternative, the following comments are also offered:

B. Siting Guidelines

This office objects to the Department of Energy's reliance upon the General Guidelines for the Recommendation of Sites for the Nuclear Waste Repositories (10 C.F.R. 960) for the ranking of sites for site characterization. The guidelines, which were not put into final form until December 6, 1984 and are still subject to challenge, were used in making the preliminary rankings in the draft

environmental assessments. The environmental assessments were made available to the public on December 19, 1984, barely two weeks after the guidelines were published. It is therefore difficult to understand how a legitimate ranking could be determined on the basis of such "new" guidelines. In fact, the guidelines are currently the subject of litigation which could further alter their substance. Lawsuits timely filed by the State of Washington and the Environmental Policy Institute both question various aspects of the guidelines. Additional lawsuits may be filed within the time frame set forth by the Nuclear Waste Policy Act for challenges to the siting guidelines.

Since the guidelines are the very basis for a number of crucial decisions in regard to nuclear waste, a final determination of what those are is necessary before the guidelines are used to rank potential sites.

C. EPA Standards

It is the position of this office that the draft "Environmental Standards for the Management and Disposal of Spent Nuclear Fuel, High-level and Transuranic Radioactive Waste" (10 C.F.R. 191) must be finalized before sites are named for characterization and before the environmental assessments are finalized. We do not believe that sites can be

selected for characterization when the Environmental Protection Agency quality assurance standards have yet to be finalized. To do so would result in crucial decisions being made before actual standards on which those decisions should be based are adopted.

In addition to this, Section 121(a) of the Nuclear Waste Policy Act of 1982 specifically mandates that these standards were to be promulgated one (1) year after that Act was passed. Since these standards have yet to be finalized, this requirement of the Nuclear Waste Policy Act has not been met and there has therefore been a total lack of compliance with federal law with respect to the adoption of those standards.

The Environmental Protection Agency was established specifically for the purpose of protection of the environment. With the prospective venting of radioactive gases into the air on a regular basis in the vicinity of the repository, it is only logical that standards should be set forth governing a repository which not only protect the environment but the humans who live in that environment.

It is indeed interesting to note that not one provision is discussed for a plan for the clean up of a site if some

aspect of the tests done during site characterization should go awry and cause some permanent damage to the environment even though the site may be abandoned. Having experienced the abandonment by the Department of Energy of the Tatum Salt Dome site after contamination, this office is reluctant to agree with any activity which does not provide in every way possible for the protection of the environment. We therefore believe that it is absolutely necessary that the environmental assessments include a comparison of the sites against environmental standards. This is not possible to accomplish without the implementation of standards by the government agency with the most experience in that area, the Environmental Protection Agency.

D. Geologic Media Consistency

This office objects to the exclusion of the Swisher County, Texas site from the list of five sites tentatively named by the Department of Energy as those suitable for site characterization. This decision, based on ranking by geological media, is not justified since the bedded salt sites are more qualified as nuclear waste repository sites than the Richton Salt Dome.

North American domal salt sites, because of the geologic environment required for their formation, are all located in the Gulf of Mexico area. The Gulf of Mexico area has developed from its geologic environment where the Mississippi River system and its sediment enters the sea. The area is thus highly developed due to the opportunities for transportation and resources that derived from such a setting -- river transport, hydrocarbons, agriculture. This development has in turn led to population growth, industrial growth, in an area characterized by ocean-influenced severe storm weather. Bedded salt sites, on the other hand, can be located anywhere an appropriate stratigraphic sequence exists, including extremely remote areas, and areas with moderate weather prevailing. (Richton Environmental Assessment, p. 7-61, p. 7-67).

At the bedded salt sites, favorable conditions exist for a host rock and for immediately surrounding geohydrologic units with low hydraulic conductivities. In addition, in bedded salt sites the favorable condition exists of a downward or predominantly horizontal, hydraulic gradient in the host rock and in the immediately surrounding geohydrologic units. Neither of these above favorable conditions are present at domal salt sites like Richton (Richton Environmental Assessment, p. 7-7).

Bedded salt sites are laterally extremely extensive with numerous repeated salt horizons giving many possible siting options. Salt domes are discrete features of the earth's crust known to be limited in number and individually laterally restricted resulting in few possible siting options. (Richton Environmental Assessment, p. 7-22).

Adverse conditions present at Richton Dome also include numerous oil and gas exploratory drill holes that penetrate the dome. Conversely, no drill holes of this nature are in the vicinity of the bedded salt sites. (Richton Environmental Assessment, p. 3-32).

Groundwater travel times up to 360,000 years have been measured in bedded salt sites whereas Richton estimates are approximately 107,000 years. (Richton Environmental Assessment, p. 7-10). Hydraulic conductivity of the salt dome and surrounding strata is very high at the Richton site and low at the bedded salt sites. (Richton EA, p. 7-12).

Section 112, of the Nuclear Waste Policy Act of 1982, states that the siting guidelines "shall require the Secretary to consider the various geological media in which sites for repositories may be located and, to the extent practicable, to recommend sites in different geological media."

The Act clearly does not require the nomination of sites from different geological media, but only suggests that they be considered "to the extent practicable." It is our position that the preference for the Richton Dome over the Swisher site, which is superior to Richton for disposal of high-level nuclear waste since its sister site was ranked ahead of Richton, is neither logical nor consistent with the spirit of the Act.

E. Threatened and Endangered Species

An insufficient amount of data exists as to the existence of threatened and/or endangered species and archeological sites in the Richton Dome area. This statement is borne out by § 3.4.6.1 of the Draft Environmental Assessment, which states that "although both Woodland and Mississippi Period sites have been recorded in southeastern Mississippi, no stratigraphic excavations or statistically adequate artifact samples have been obtained, and these occupations are not well understood in the area." In addition to this, § 3.4.2.3 of the Draft Environmental Assessment indicates that threatened and/or endangered species may exist in the area, although their existence is not yet confirmed.

The Mississippi Department of Energy and Transportation attempted to rectify this situation by making two grant

requests dated December 7, 1984, one for \$100,000 for an archeological study and one for \$280,000 for a Threatened and Endangered Species study. The Energy and Transportation Department has now been advised that funding for these studies would not be allowed. It was indicated that such studies would not take place until site characterization activities were underway.

It is the position of this office that site characterization activities could have the effect of irreparably damaging any archeological sites or the existence of threatened and endangered species. Any site specific data on these two matters obtained through site characterization would be rendered useless. Information must therefore be obtained prior to the initiation of site characterization. Without such information, the Richton Environmental Assessment is inadequate to be used as a basis for informed decision making.

This position is supported by specific provisions of the Endangered Species Act (16 U.S.C.A. § 1531 et seq.). That Act states that every federal agency has a duty not to jeopardize the existence of a threatened or endangered species or their habitat. (16 U.S.C.A. § 1536(a)(2)). Furthermore, the acting agency must inquire of the Secretary of the Interior as to whether any endangered or threatened

species may be present in the area of proposed action and, if so, to conduct a "biological assessment" to determine the affect of the agency action. (Id., § (c)(1)). It is clear that this Act requires scrutiny of the area in question before any activities occur which may jeopardize the existence of any threatened or endangered species. It is therefore the opinion of this office that studies concerning threatened and endangered species must be completed prior to site characterization. Site characterization activities would result in irreparable damage to the area and would render useless the carefully drawn procedural provisions of the Endangered Species Act. To initiate characterization before determining the existence of threatened and endangered species in the Richton area is thus violative of both the intent and letter of that Act. Since the State of Mississippi was refused the necessary funding to make its own studies, it is the Department of Energy's legal duty to do so.

Finally, it is noted by this office that a Threatened and Endangered Wildlife Survey for the Vacherie Dome area, Louisiana (BMI/ONWI-543) has been prepared for the Office of Nuclear Waste Isolation. Yet, the Department of Energy has seen fit to deny our request for funds to have a thorough study done so that facts accumulated could be utilized for more informed decision making prior to a disturbance of the

area. The result of this decision is to leave the State of Mississippi in an inferior status to other states so far as technical data are concerned. This office therefore objects to the lack of equal protection afforded this state by the high-level nuclear waste program.

Reference: Bechtel National, Inc., 1985.
Threatened and Endangered Wildlife
Survey: Vacherie Dome Area, Louisi-
siana, BMI/ONWI-543, Technical
Report Prepared for Office of Nuclear
Waste Isolation, Battelle Memorial
Institute, Columbus, OH.

F. Weighting Factors

With respect to the weighting (§ 112(a)) given the pre-closure and post-closure guidelines, this office feels the Department of Energy must give greater weight to the post-closure guidelines. Given the long-term effect and continued radioactivity of high-level nuclear wastes, it is our opinion that the weight given to post-closure guidelines (51%) is much too low.

Since the health, safety and welfare of future generations is fundamental in our society and should be of utmost importance in any decision concerning high-level nuclear wastes, we urge that the weight given to the post-closure guidelines be significantly increased. Surely the long-term should be given more consideration when harmful effects on people from the nuclear waste material

are possible for over a 10,000 year period. While we do feel that the pre-closure effects should be thoroughly considered, the long-term lethal nature of the material must take precedence for the purpose of weighting. Since representatives of the Department of Energy have stated and the Richton Environmental Assessment indicates in places that the town of Richton will not have to be moved if a repository is forced on the area, the people living adjacent to the site, and their children for generations, will have to contend with the long-term effects of such a facility. Certainly, the many problems that those people would have to deal with over the centuries would warrant the post-closure guidelines receiving greater consideration. Without such weighting, the Richton Environmental Assessment is inadequate and inappropriate as a basis for informed decision making.

G. Socio-Economic Impacts

Insufficient evaluation has been given by the Richton Environmental Assessment to the socio-economic impacts on the Richton area. Once again, not enough consideration is given to such matters as the removal of land from private ownership, the effect the influx of a large number of individuals and their families on a rural town in southeast

Mississippi, the effect of possible medical problems on the community due to the venting of radioactive gases at the site, or the effect of an accident during construction or operation of a repository. How any of the potential sites could rank equal to or behind Richton in the environmental assessments in these areas of socio-economic impact when there is a town with people located adjacent to the site is beyond comprehension. Such conclusions can only indicate assessments so thoroughly deficient in evaluation as to constitute almost no evaluation at all. Certainly such draft environmental assessments fail to assess "the effects of the site characterization activities ... on the public health and safety" and other environmental and socio-economic impacts as provided for by the Nuclear Waste Policy Act in Section 112(b).

The Mississippi Energy and Transportation Board requested funds for the performance of a study to evaluate socio-economic impacts on the Richton area. Those funds would have enabled those responsible for the nuclear waste program to more accurately assess the socio-economic impacts on the Richton location.

With the number of families located at the site and in the adjacent town of Richton being severely affected

already by the consideration of the Richton site as a possible location for a repository, information of a socio-economic nature would have been most useful. However, almost all of the request was denied with only limited funding being provided. Thus, the matter of greatest concern in Mississippi with respect to the nuclear waste program, its people, is once again not provided adequate consideration.

H. Sufficiency of Knowledge of Geologic Setting

Section 112(b)(1)(E) of the Nuclear Waste Policy Act (NWPA) requires that "Each nomination of a site under this subsection shall be accompanied by an environmental assessment, which shall include a detailed statement of the basis for such recommendation. ..." and further that "Such an environmental assessment shall include (i) an evaluation by the Secretary as to whether such site is suitable for site characterization under the guidelines established under subsection (a); (ii) an evaluation by the Secretary as to whether such site is suitable for development as a repository under each guideline that does not require site characterization as a prerequisite for application of such guideline...."

By these provisions the Act requires the Department of Energy (DOE) to reach its conclusions in such a way that

the recommendation is defensible and based upon information and data that can be independently verified as applicable and sufficiently complete and accurate so as to make such recommendations with a reasonable assurance that the site is both suitable for site characterization and development as a repository.

In the Richton Environmental Assessment, the Department of Energy has not complied with these aforementioned Nuclear Waste Policy Act requirements.

The Department of Energy has no specific knowledge of the geologic conditions at the repository horizon. The core hole bottom is over 247 m (810 ft.) above the repository horizon. (Richton Environmental Assessment (EA), p. 4-38, and ONWI-120, 12-32). The exploratory shaft facility (ESF) is planned by DOE to be no closer than 1,982 m (6,500 ft.) to the first high-level waste (HLW) canister to be placed (EA p. 5-14) and no closer than 3,659 m (12,000 ft.) to the last HLW canister (Richton EA p. 5-14) to be placed. The phased repository development is planned by DOE to have HLW canisters in place when the most distant drift development (exploration) is 1,067 m (3,500 ft.) from the last HLW canister to be placed. (Richton EA p. 5-25). Thus a commitment to high-level waste placement is to be made before the majority of the repository subsurface area is explored.

There has been no sufficient evaluation by the Department of Energy of the lateral extent over which the repository can be developed owing to having no knowledge of the dome edge configuration (Richton EA p. 6-73) or the location and extent of anomalous zones which are to be avoided in HLW canister placement (Richton EA p. 5-24).

The Department of Energy has no specific or sufficient knowledge of the hydrogeologic environment at the repository depth either in the salt dome or in surrounding formations (Richton EA p. 6-70). The existence, nature, and extent of anomalous zones within the salt dome are unknown. Anomalous zones are demonstrably more permeable (Richton EA p. 3-24) and are known to be water bearing. (Iannacchione, et al., 1984). The nature and condition of near-dome formations are unknown, as are connections between anomalous zones and these formations (Richton EA p. 6-23) and groundwater conditions and flowpaths within and among these formations. (Richton EA p. 6-70).

The Department of Energy has specific knowledge of limited dissolution of the salt immediately beneath the caprock (Richton EA p. 3-18) but no knowledge of the existence, nature, and extent of other areas of dissolution.

On p. 3-77 of the Richton EA, it is noted that groundwater is thought to move from the lower to upper aquifer,

providing a mechanism for radionuclide contamination of usable aquifers. On p. 3-77 of the Richton EA, it is also noted that the Upper Claiborne groundwater flow is towards Richton and its water supply, whose pumping will attract these waters. On p. 3-35 of the Richton EA, elevated Sodium (Na) and Chloride (Cl) concentration in shallow groundwaters are noted, which are suggestive of dissolution of salt or upward leakage of brines from lower groundwaters. On p. 6-70 of the Richton EA, it is noted that no data or information exist on fluid occurrence or movement in anomalous zones or within the salt itself within the salt dome.

It is the position of this office that the above references warrant a lowering of the Richton ranking because of the indicated likelihood of radionuclide transport by water to the environment. In addition, consideration must be given to possible contamination of drinking water aquifers during any site characterization activities. No provisions are discussed or presented for the cleanup of drinking water aquifers contaminated by actions of the Department of Energy or its contractors during site characterization testing. Surely the Department would not abandon a contaminated site without attempted cleanup. However, the problem is that no method of cleanup is presented under a worst case scenario.

Reference: Iannacchione, A.T., R.H. Graue, III, A. Sainato, T.M. Kohler, and S. J. Schatzel, 1984 Assessment of Methane Hazards in an Anomalous Zone of a Gulf Coast Salt Dome, U.S. Bureau of Mines RI 8861, 26 pp.

Law Engineering Testing Company, 1982. Gulf Coast Salt Domes Geologic Area Characterization Report Mississippi Study Area, Technical Report, Vol. VI, ONWI-120, prepared for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

I. Surface/Subsurface Facility Planning

Section 112(a) of the Nuclear Waste Policy Act (NWPA) provides that "Such guidelines shall specify population factors that will disqualify any site from development as a repository if any surface facility of such repository would be located (1) in a highly populated area; or (2) adjacent to an area 1 mile by 1 mile having a population of not less than 1,000 individuals." Further, Section 112(b)(1)(E)(ii) provides that an environmental assessment shall include "...an evaluation by the Secretary as to whether such site is suitable for development as a repository under each guideline that does not require site characterization as a prerequisite for application of such guideline. ..."

By these provisions of the Act, the Department is required to nominate a site remote from population that is also suitable for development as a repository. The Department of Energy has not complied with these provisions of

the Nuclear Waste Policy Act in that the existence of the town of Richton over a southern portion of the dome has led to the planning of the shaft for the subsurface facility in the northernmost portion of the dome. Furthermore, the proximity of the town of Richton has led to the planning of the surface facility such that the shafts are in the southernmost portion at the surface facility while the remainder of the surface facility lies north of the shafts.

These planning decisions at the Richton Dome site have led to the following surface facility features (Richton EA p. 5-9):

1. The salt conveyor to the stockpile has two in-line transfer towers and two 90° turns.
2. The salt conveyor to the stockpile extends from one corner of the facility to the opposite corner.
3. The salt conveyor to the stockpile crosses over the railroad and railroad yard.
4. Railroads have near-minimum radii of curvature.
5. The storm-water retention ponds are on the highest land of the site.

6. The confinement air exhaust shaft and exhaust stack are within 1,000 ft. or less of the storm-water retention ponds, the raw water treatment plant, the compressor chiller building, and the cooling towers, all environmentally sensitive systems. Such planning decisions are not optimal.

For comparison, the Davis Canyon surface facility, which has severe topographic constraints but no population constraints, has the following layout features (Davis Canyon EA, p. 5-9):

1. The salt conveyor to the stockpile has no in-line transfer towers and no turns.
2. The salt conveyor to the stockpile is about 500 ft. long.
3. The salt conveyor to the stockpile crosses over no other facilities.
4. Railroads have wide-radius curves.
5. The storm water retention ponds are near the lowest land of the site.
6. The confinement air exhaust shaft and exhaust stack are more than 2,000 ft. from any environmentally sensitive systems.

This complexity and nonoptimal arrangement of the Richton site surface facilities is a result of

attempting to keep all facilities as far from the town of Richton as possible and still have the shafts in the dome. The Richton redesign is obviously an attempt to try to qualify a site that has been disqualified by the provision of the Nuclear Waste Policy Act when the primary consideration should have been the design of the site in the best formation possible for technical performance.

J. Retrieval

Section 122 of the Nuclear Waste Policy Act requires that "Notwithstanding any other provision of this subtitle, any repository constructed on a site approved under this subtitle shall be designed and constructed to permit the retrieval of any spent nuclear fuel placed in such repository, during and appropriate period of operation of the facility, for any reason pertaining to the public health and safety, or the environment, or for the purpose of permitting the recovery of the economically valuable contents of such spent fuel. The Secretary shall specify the appropriate period of retrievability with respect to any repository at the time of design of such repository, and such aspect of such repository shall be subject to approval or disapproval by the Commission as part of the construction authorization process under subsections (b) through (d) of Section 114." Subsequently, the Nuclear Regulatory Commission in

10 C.F.R. 60.111(b) has defined the retrievability period as that "...during which wastes are being emplaced and thereafter, until completion of a performance confirmation program and Commission review of the information obtained from such a program. To satisfy this objective, the geologic repository operations area shall be designed so that any or all of the emplaced waste could be retrieved on a reasonable schedule starting at any time up to 50 years after waste emplacement operations are initiated, unless a different time period is approved or specified by the Commission."

The Act and the Commission require the Department of Energy (DOE) to design for retrieval of waste until the end of the performance confirmation program or 50 years after initial waste emplacement, whichever comes first. All waste must be able to be retrieved.

The Department of Energy has not complied with these provisions of the Act since creep of salt, temperature environment, radiation environment, and human factors in equipment operation will preclude retrieval with any available or reasonably projected available technology during the required time period.

The Department of Energy states on p. 5-31 of the Richton Environmental Assessment (EA), Section 5.1.3.3, that "The ability to retrieve the waste packages will be

demonstrated prior to a decision to backfill the waste package storage rooms and will be maintained whether the storage rooms are backfilled or not." The Richton EA also states on p. 6-138, Section 6.3.3.2.1, that "For analyses of retrieval of waste canisters following closure, it is assumed that re-excavation of storage rooms and relocating waste canisters will be required. While costly, this will be possible with reasonably available technology, and without undue hazard."

It is anticipated that the following environment will be present at retrieval:

1. The salt will creep to close the canister hole air gap in less than one year with stress on the canister rising to 1.5 to 2.0 times the pre-emplacement in-situ stresses within two (2) years (Richton EA p. 6-189, Figure 6-194).

2. Within five (5) years the near-canister salt temperature will be nearly 300°C to 180°C, while the salt temperature 5 m away will be 120°C to 118°C (Richton EA Figures 6-6 and 6-7).

3. Canisters will have moved in various unpredictable ways as they mobilize the salt surrounding them (Richton EA p. 6-40).

4. The near-canister area will contain vented volatile radionuclides of H-3, C-14, K-85, and I-129 (NUREG-3489).

5. Backfill may have been placed in the rooms and will have at least partially reconstituted itself to rock salt owing to the creep pressure of the surrounding salt (Richton EA p. 5-24).

6. Brine will have accumulated at the canisters at the rate of one liter per year to ten liters per year (Richton EA Figure 6-188) or perhaps much higher (Martinez, et al., 1979). Excess brine not consumed by canister corrosion or brine that is in nearby salt that has not yet reached the canister will be a superheated, confined, vapor that will be released by any excavation activities.

NUREG-3489 concludes that the hot, radioactive, vapor-laden, stressed environment that surrounds canisters will preclude retrieval since no technology exists for manned equipment or remote-controlled equipment that can operate in this environment and locate, free, and retrieve canisters, nor is such technology likely to be developed in the required time frame. Pre-cooling the room will provide a locally more manageable environment, but the near-canister

area will not be much improved even after lengthy pre-cooling times. The Department of Energy has not presented such a pre-cooling scenario.

Reference: Martinez, J.D., R.C. Thomas, C.R. Kolb, M.B. Kumar, R.E. Wilcox, and E.J. Newchurch, 1978. An Investigation of the Utility of Gulf Coast Salt Domes for the Storage or Disposal of Radioactive Wastes, EW-78-C-05-5241/53, prepared by Institute for Environmental Studies, Louisiana State University, for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

NUREG-3489, 1984, Assessment of Retrieval Alternatives for the Geologic Disposal of Nuclear Waste, F.S. Kendorski, D.F. Hambley, and P.C. Wilkey, Engineers International, Inc., prepared for U.S. Nuclear Regulatory Commission, 656 p.

K. Cypress Creek Dome Draft Environmental Assessment

In the limited time available, this office was able to briefly review the Cypress Creek Environmental Assessment. In general, the disturbing finding is made that the Cypress Creek Dome study has been carried out only for hydrogeologic areas and some socio-economic and transportation areas. The Cypress Creek Environmental Assessment for other areas is either the Richton Environmental Assessment or the Vacherie Environmental Assessment, or an illogical blend of both.

It is clear that the use of data, analyses, and conclusions from sites other than the one under consideration in the Cypress Creek Environmental Assessment does not comply with the Nuclear Waste Policy Act.

Particular problems that are discerned by this office in the consideration of Cypress Creek as a potential site are hereafter described.

The site is located on National Forest Land, Camp Shelby Mississippi National Guard Land, and Section 16 State School Land, resulting in a severe impediment in the Department of Energy acquiring title to the site.

The Cypress Creek site is almost entirely located in swamp land subject to flooding which is undoubtedly (Cypress Creek Environmental Assessment, p. 3-10) the result of salt dome dissolution and land subsidence. All available data support rather than deny that conclusion. Not only do construction and operation difficulties arise, but active or recent dissolution is a disqualifying site characteristic.

The subsurface salt dome lithology is not known at the repository depths. The cored hole stops 200 to 800 ft. above the repository depths (Cypress Creek EA p. 3-21). Core was taken, but no geomechanical tests are reported. Instead a blend of Richton and Vacherie data are used (Cypress Creek EA, Table 6-9), and Richton thermomechanical modeling

results are presented. Richton and Vacherie salt creep behavior differ by orders of magnitude in many aspects, so use of such data is inappropriate and misleading.

Older hydrocarbon wells penetrate the repository horizon in the dome in five (5) places. Two are within the repository itself, while another two are within two hundred (200) ft. of the repository (Cypress Creek EA, p. 5-13). This situation is clearly not in compliance with the Nuclear Waste Policy Act. Finding and sealing these bore holes will be a severe problem. In addition three producing wells extend through the salt dome overhang (Cypress Creek EA, p. 3-46).

The estimated sub-surface temperatures at Cypress Creek are the highest recorded at domal salt sites; being 110° F to 118° F (Cypress Creek EA, p. 341), which will lead to operational difficulties and increased costs.

The hydrogeologic modeling (Cypress Creek EA, Figure 3-29) apparently has not included the upturned structure of neardome strata as reported in the Cypress Creek EA, p. 3-79, and illustrated in Figure 13-9 of ONWI-120. The generalized groundwater flow of a horizontal direction in aquifers and a vertically upward direction in confining units would be severely affected by this upturning.

Geochemical data as reported on p. 6-87 of the Cypress Creek Environmental Assessment are very limited, calling into question all conclusions drawn in the Environmental Assessment regarding radionuclide transport.

Many comments concerning the Richton Environmental Assessment apply equally well to the Cypress Creek Environmental Assessment, especially those dealing with geologic uncertainty, anomalous zones, and retrieval.

In 1981 and 1982, DOE adopted a modified repository site criteria for screening of sites of 1,500 acres to accommodate 74,844 metric tons of HLW. This eliminated many sites. However, the Cypress Creek EA reference design and phased design require not less than 1,500 acres for one level, with two levels required, to accommodate 70,000 metric tons of HLW (Cypress Creek EA, Section 5.5). Thus, Cypress Creek Dome would not have survived screening in 1981 and 1982 based upon present knowledge.

Reference: Law Engineering and Testing Company,
1982. Gulf Coast Salt Domes Geologic
Area Characterization Report Missis-
sippi Area Study, Vol. VI, ONWI-120,
prepared for Office of Nuclear Waste
Isolation, Battelle Memorial Institute,
Columbus OH.

These inadequacies of the Cypress Creek EA in the areas of land status, evident dissolution and resulting stability questions, unknown subsurface conditions and

salt behavior, repository area well penetrations, and the unknown groundwater flow and chemistry make the Cypress Creek Dome unsuitable for site characterization and development of a repository since radionuclide contamination exceeding applicable standards at the accessible environment cannot be precluded with the information within the EA.

IV. SUMMARY

For the reasons enumerated in this document, this office urges the Department of Energy to eliminate the Richton Dome and the Cypress Creek Dome sites for consideration as a high-level nuclear waste repository and from consideration for site characterization. The Nuclear Waste Policy Act of 1982 clearly mandates this position. In addition to this, utilization of the Richton site, as is noted in this document, is neither technically feasible nor in the best interests of the 1,250 citizens of the town of Richton.

The Richton and Cypress Creek Environmental Assessments prepared by the Department of Energy are not of sufficient quality to constitute the basis of any decision regarding the disposal of high-level nuclear waste. The Richton and Cypress Creek Environmental Assessments are fraught with examples demonstrating the lack of data on numerous topics, and the unfair and improper comparison and utilization of data, and the irrelevancy of information. Given the

extremely dangerous nature of high-level nuclear waste, better quality environmental assessments on the Richton and Cypress Creek sites are of absolute necessity in order for any future irrevocable decisions to be based on the information contained therein.

Conclusions such as those drawn on page 16 of the Richton Environmental Assessment can only lead to a lack of confidence in the environmental assessments. The Richton EA states that there are no legal impediments in the State of Mississippi that would prevent or impede the transportation for waste through the State. However, restrictive laws in Louisiana could affect shipments to the Richton Dome site." Such a statement shows a clear misunderstanding of the legal implications of the respective state provisions. The fact that the Louisiana provision may be subject to serious constitutional challenge whereas the Mississippi provision was specifically drafted in an effort to withstand such a challenge was obviously not considered when the above statement was drafted. (Appendix C). Such a reasoning process can only continue to cause the program problems.

Finally, we reiterate our position that the comment period was too short and ill-timed. Since state and public

input is provided for under the provisions of the Nuclear Waste Policy Act, it is unfortunate that the Department of Energy has decided to solicit comments in such a way as to ignore the effectiveness of those comments. This apparently is another example of the Department of Energy's lack of consideration in dealing with the states and the public with regard to this program. It is sincerely hoped however, that a more professional and logical approach will be pursued and that the comments of this office on this document will be well taken.

§ 17-17-49. Use of salt domes or other geologic structures for disposal of radioactive waste; penalties; enforcement; authorization.

(1) No salt dome or other geologic structures within the juris-

diction of the state of Mississippi shall be the site of long-term or terminal disposal, or long-term storage for high-level radioactive wastes or other high-level radioactive material of any nature by any person, until the state has exhausted its administrative and legislative authority under the provisions of this section and chapter 49 of Title 57, Mississippi Code of 1972, and the provisions of P.L. 97-425.

(2) Whoever violates the provisions of this section, upon conviction thereof, shall be punished by a fine of one thousand dollars (\$1,000.00) for each day upon which the violation occurred or by imprisonment in the county jail not to exceed six (6) months, or both. Upon violation or upon reasonable belief of violation of this section, the state attorney general shall institute proceedings for injunctive relief in the chancery court of the county in which the violation occurred to require the immediate cessation of any testing, on-site evaluation or any other site evaluation or selection procedure regarding possible use of any salt dome or geologic structure within the jurisdiction of the state of Mississippi, the immediate cessation of transportation of high-level radioactive waste or other high-level radioactive material to the site, and the immediate removal from the state of Mississippi of such materials already located on the site.

(3)(a) Any person, governmental entity, or any other entity desiring to use Mississippi salt domes or other geologic structures within the state for the disposal of radioactive wastes shall make notification to the governor, the legislature, and, pursuant to the provisions of sections 17-17-48 through 17-17-51 and chapter 49 of Title 57, Mississippi Code of 1972, the state energy and transportation board. Such person, governmental entity, or other entity shall include with the aforementioned notification the selection method with evaluative criteria to be used and the methods and procedures of exploration to be used in selecting a site for a disposal facility. Such person, governmental entity, or other entity shall conduct such studies where specifically mandated to do so by this section in coordination with the above-mentioned state agencies, and shall assume the cost of any studies required by this section or required by the state agencies empowered to enforce the provisions of this section, whether or not the agencies or such person or entity actually conducts the study.

(b) Such person, governmental entity, or other entity desiring to establish a waste facility as defined in paragraph (a) of this subsection shall conduct studies as follows to determine the feasibility of using Mississippi salt domes or other geologic struc-

tures within the state for the disposal of radioactive wastes. A hydrogeologic and geologic study shall be conducted. All basic data and documentation pertinent to all aspects of such studies together with any conclusions shall be presented as accumulated to the governor, the legislature, and, pursuant to the provisions of sections 17-17-48 through 17-17-51 and chapter 49 of Title 57, Mississippi Code of 1972, the state energy and transportation board.

(c) Such person, governmental entity, or other entity desiring to establish a waste facility as defined in paragraph (a) of this subsection shall conduct an environmental impact survey in conjunction with the bureau of pollution control of the department of natural resources or its successor. Copies of this completed survey shall be presented to the governor, the legislature, and the state energy and transportation board.

(d) Such person, governmental entity, or other entity desiring to establish a waste facility as defined in paragraph (a) of this subsection shall conduct a socioeconomic impact survey in conjunction with the Mississippi Research and Development Center. Such survey shall include, but not be limited to, the allocation of costs regarding roads, bridges, relocation of persons and properties, and the effect on local tax revenues. Copies of this completed survey shall be sent to the governor, the legislature, and the state energy and transportation board.

(4) Upon the completion of such thorough technological, environmental and socioeconomic studies as required in subsection (3) of this section, the governor shall consult with representatives of the agencies mentioned herein and with representatives of the affected county, including, but not limited to, the board of supervisors. The governor shall thereafter determine the advisability of such facility at the proposed site. If the governor's decision after such consultations is favorable to the establishment of the nuclear waste disposal site, he shall advise the legislature of his decision regarding creation of such disposal facility. If the governor's decision, after such consultations, is not favorable to the establishment of the nuclear waste storage and/or disposal facility, and after the president has recommended a site in the state of Mississippi for development as a repository, test and evaluation facility, interim storage facility or monitored, retrievable storage facility, the governor shall notify the legislature of that decision and either the governor or the legislature shall prepare and transmit to the speaker of the United States House of Representatives and the president pro tempore of the United States Senate a notice of

disapproval of the site recommendation. The notice of disapproval shall contain a statement of those reasons for objection to the site recommendation. All such disposal or storage shall be made in strict adherence to guidelines established by the federal government, the division of radiological health of the state board of health and the provisions of this section.

SOURCES: Laws, 1979, ch. 491, § 8; 1980, ch. 480, § 2; 1982, ch. 474, § 24; 1983, ch. 505, § 7, eff from and after passage (approved April 12, 1983).

I. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT
NUCLEAR WASTE NOT BE STORED IN ANY GEOLOGIC FORMATION
IN THE STATE OF MISSISSIPPI.

- A. The State of Mississippi is opposed to the
depositing of nuclear waste in Mississippi because
it would create hazards to the health, safety, and
welfare of the people of the State of Mississippi.
1. It is a primary responsibility of the State
of Mississippi to protect the health, safety,
and welfare of its citizens.
 2. It has not been technically demonstrated to
the satisfaction of technical representatives
of the State of Mississippi and elsewhere that
a repository can be located in Mississippi
safely so as to not interfere with or create
hazards for the health, safety, and welfare of
the people of the State of Mississippi.
 3. There have not been adequate responses by the
Department of Energy to technical and policy
questions raised by the State of Mississippi
relative to the location of a nuclear waste
repository in the State of Mississippi.

4. There has been a lack of cooperation and a lack of transfer of information from DOE to the State and the public relative to the location of a nuclear waste facility in Mississippi so that those responsible for the health, safety, and welfare of the people of the State of Mississippi are impeded in their efforts to make adequate and sufficient judgments as to the protection of its citizens.
 5. It has been clearly stated by the Governor, Attorney General, and the Legislature of this State, as representatives of the people of this State, that this State opposes the placement of nuclear waste in the State of Mississippi.
- B. In the event that the DOE determines that a proposed Mississippi site warrants further field investigation, it is the policy of the State of Mississippi that the public health, safety, and welfare of the people of this State be absolutely protected.
1. A full and complete briefing should be provided immediately to the State of Mississippi pursuant to Federal and State law and by any other entity having a responsibility with regard to the national nuclear waste program.

2. No field activity shall begin in the State of Mississippi without the prior negotiation and conclusion of a written agreement as required by Public Law 97-425.
 3. Any field work conducted by an organization or entity shall be subject to review by appropriate officials of the State of Mississippi. Such review shall include all raw data and all reports or summaries of any type whatsoever.
 4. The State of Mississippi shall establish a field office at the site of any field work attempted in Mississippi by DOE.
- II. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT THERE BE STRICT COMPLIANCE WITH ALL STATE LAW, INCLUDING BUT NOT LIMITED TO ALL PERMITTING RULES AND ANY OTHER REGULATORY REQUIREMENTS.
- III. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT, PURSUANT TO THE GOVERNOR'S MORATORIUM AND THE FEDERAL POLICY OF CONSULTATION AND COOPERATION, A CESSATION OF FIELD WORK IN MISSISSIPPI BY DOE SHOULD CONTINUE UNTIL SUCH TIME AS ALL DOCUMENTATION RELATIVE TO THE NUCLEAR WASTE PROGRAM IN MISSISSIPPI HAS BEEN PROVIDED AND REVIEWED TO THE SATISFACTION OF THE GOVERNOR.
- A. The Governor's Moratorium calls for cessation of field work by the Department of Energy in the State of Mississippi until such time as all

documentation relative to the Nuclear Waste Program in Mississippi has been provided and reviewed.

1. All documentation relative to this program has not been reviewed or received from the Department of Energy and no certification or indication has been received from the Department of Energy that all documentation has been received.
2. Until the documentation has been reviewed so as to adequately determine if sufficient information has been reviewed to justify decisions relative to the health, safety and welfare of the people of the State of Mississippi, no further field testing should be conducted in Mississippi by DOE.
3. Any other organization or entity which desires to perform field activity with respect to the possible location of a nuclear waste repository in Mississippi shall comply with state law and shall seek the approval of the appropriate state agencies.

- B. The State of Mississippi will take whatever steps are necessary in order to determine if the health, safety, and welfare of the people of this State and their interests are being fully protected.
- C. The moratorium should only be lifted if there are adequate and complete safeguards to protect the people of the State of Mississippi during any field work initiated by the Federal Department of Energy.
 - 1. In order to protect the health, safety, and welfare of the people of the State of Mississippi, it may be necessary for the Governor of the State of Mississippi to cause to be conducted additional field work in the area in order to confirm, refute, or dispute conclusions drawn by the Department of Energy during their research efforts in the past.
 - 2. No field work should be performed unless there are representatives of the State of Mississippi involved in the planning and the execution of that field work.

- IV. AT THE BEGINNING OF ANY FIELD WORK, BY ANY AGENCY, ORGANIZATION, OR ENTITY OTHER THAN THAT OF THE STATE OF MISSISSIPPI, THERE MUST BE IN PLACE A NEGOTIATED AGREEMENT DETAILING IN WRITING AT A MINIMUM THOSE PROVISIONS REQUIRED UNDER STATE LAW AND INCLUDING SUCH OTHER PROVISIONS AS MAY BE NECESSARY IN ORDER TO PROTECT PUBLIC INTEREST, HEALTH, SAFETY, AND WELFARE OF THE CITIZENS OF THIS STATE.
 - A. Such agreement would be negotiated between the Federal Department of Energy or other federal agency and the appropriate representatives of the State of Mississippi.
 - B. No field work should be attempted under any circumstances without prior consultation with the Technical Review Committee and the consultation with Nuclear Waste Policy Advisory Council, and without the approval of the Energy and Transportation Board.
 - C. Any agreement negotiated shall be subject to the statutory provisions set forth under the appropriate sections of Mississippi law.
- V. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT THE ENERGY AND TRANSPORTATION BOARD SHALL SERVE AS THE INITIAL AGENCY IN THIS STATE TO BE CONTACTED BY THE FEDERAL DEPARTMENT OF ENERGY OR ANY OTHER FEDERAL AGENCY ON ANY MATTER RELATED TO THE LONG-TERM OR TEMPORARY STORAGE AND/OR PERMANENT DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE OR TRANSURANIC WASTE. THE ENERGY AND TRANSPORTATION BOARD SHALL BE NOTIFIED BY DOE IN ADVANCE OF ALL ACTIVITIES OR CONTACTS WITHIN THE STATE BY DOE OR CONTRACTORS RELATIVE TO THE NUCLEAR WASTE PROGRAM. THE BOARD SHALL SERVE AS THE INITIAL AGENCY IN THIS STATE TO RECEIVE ANY REPORT, STUDY,

DOCUMENT, INFORMATION OR NOTIFICATION OF PROPOSED PLANS FROM THE FEDERAL DEPARTMENT OF ENERGY OR ANY OTHER FEDERAL AGENCY ON ANY MATTER RELATED TO THE LONG-TERM OR TEMPORARY STORAGE AND/OR PERMANENT DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE OR TRANS-URANIC WASTE. NOTIFICATION OF PROPOSED PLANS INCLUDE NOTIFICATION OF PROPOSALS TO CONDUCT FIELD WORK, ON-SITE EVALUATION, ON-SITE TESTING OR ANY OTHER RELATED STUDIES. INFORMATION SHOULD BE PROVIDED IN A COMPLETE AND TIMELY MANNER. THE BOARD SHALL DISSEMINATE OR ARRANGE WITH THE FEDERAL DEPARTMENT OF ENERGY OR OTHER FEDERAL AGENCY TO DISSEMINATE INFORMATION RECEIVED TO THE COUNCIL, THE COMMITTEE, APPROPRIATE STATE AGENCIES, APPROPRIATE LOCAL UNITS OF GOVERNMENT AND INTERESTED CITIZEN GROUPS.

- A. Energy and Transportation Board should maintain a log showing dates and subject matter of materials received on all matters relating to nuclear waste disposal activities. Such log will be subject to public review during normal business hours.
- B. Prior to any activity in the nuclear waste program in the State of Mississippi by any agency or contractor of the Federal Government, the Nuclear Waste Program Office of the Department of Energy and Transportation shall be consulted and informed.
- C. Prior to any activity in the nuclear waste program by any state agency or institution, the Nuclear Waste Program Office shall be consulted and informed.
- D. Any field activity undertaken pursuant to a contract or grant agreement by representatives of the Energy

and Transportation Board relative to the nuclear waste program should be preceded by prior public notification.

1. The Nuclear Waste Program Office and the Board of Energy and Transportation should provide on a weekly basis upon request a copy of the log maintained at the Energy and Transportation Board of the documents and materials received and should provide a copy of any document upon request to the Nuclear Waste Policy Advisory Council, the Nuclear Waste Technical Review Committee, local units of government, and interested citizen groups in the State of Mississippi.
2. Any information retained in the Nuclear Waste Program Office will be available to any and all members of the public for review in the reading room located at the Energy and Transportation Office during regular office hours.

VI. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT ANY INFORMATION OFFICES ESTABLISHED IN MISSISSIPPI SHOULD PROVIDE FACTUAL AND SCIENTIFIC INFORMATION AND EFFORT SHOULD BE MADE TO DIRECTLY ANSWER QUESTIONS RELATIVE TO NUCLEAR WASTE SITING POSED BY MEMBERS OF THE PUBLIC. THE BOARD OF ENERGY AND TRANSPORTATION, INsofar AS FUNDS, PERSONNEL AND BUDGET ARE AVAILABLE, SHOULD COMPILE INFORMATION THAT IS AVAILABLE TO THE BOARD FOR DISTRIBUTION TO THE GENERAL PUBLIC.

- VII. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT REPRESENTATIVES OF OTHER STATES, THE FEDERAL GOVERNMENT, AND THE SCIENTIFIC COMMUNITY SHOULD BE CONSULTED WITH AND PERTINENT INFORMATION OBTAINED SO THAT THOSE RESPONSIBLE FOR THE HEALTH, SAFETY, AND WELFARE OF THE PEOPLE OF THE STATE OF MISSISSIPPI WITH RESPECT TO THE NUCLEAR WASTE PROGRAM MAY BE MORE FULLY INFORMED SO THAT THE BEST POSSIBLE DECISIONS REGARDING THE PROGRAM MAY BE MADE.
- A. It will be the policy of this State to maintain consultation with and to coordinate its activities relative to the nuclear waste program with other states so far as is practicable. It is the policy of this State that those responsible for the nuclear waste program in this State should be fully and adequately informed of activities taking place with all federal agencies, including the Department of Energy, NRC, and EPA. Members of the scientific community should be consulted with in order to obtain the best scientific information possible.
- B. It is the policy of the State of Mississippi that any member of the public or any representative of any state or federal agency may appear before the Council, the Committee, and/or the Board in order to provide positions or opinions taken by any organized or unorganized body of citizens of the

State of Mississippi. The presentation of scientific information to the appropriate governing bodies is encouraged.

- VIII. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT ALL DECISIONS, EXCEPT DECISIONS RELATIVE TO POSSIBLE LITIGATION, SHALL BE MADE IN OPEN MEETINGS WITH THE FULL PARTICIPATION OF THOSE RESPONSIBLE FOR THE NUCLEAR WASTE PROGRAM AND OF THE PUBLIC OF THE STATE OF MISSISSIPPI AND INFORMATION UPON WHICH DECISIONS ARE MADE SHOULD BE AVAILABLE TO THE PUBLIC.
- IX. IT IS THE POLICY OF THE STATE OF MISSISSIPPI THAT THE STATE, ITS AGENCIES, SUBDIVISIONS, OFFICIALS, EMPLOYEES, AND ALL PRIVATE INDIVIDUALS SHOULD BE ABSOLVED FROM ANY LIABILITY WHATSOEVER SUFFERED AS A RESULT OF THE NUCLEAR WASTE DISPOSAL PROGRAM IN THE STATE OF MISSISSIPPI.
- A. United States Government should assume full liability for any damages which may be suffered as a result of the nuclear waste disposal program in the State of Mississippi and should make full compensation for any damages.
- B. The Board of Energy and Transportation should coordinate fully with the Mississippi congressional delegation in assuring that the State of Mississippi and its citizens should be absolved from any liability whatsoever for any damages suffered as a result of the nuclear waste disposal program in the State of Mississippi.

- X. ANY VIOLATION OF POLICY AS SET FORTH IN THIS DOCUMENT SHOULD BE REPORTED TO THE NUCLEAR WASTE POLICY ADVISORY COUNCIL FOR THEIR RECOMMENDATIONS FOR APPROPRIATE ACTION BY THE ENERGY AND TRANSPORTATION BOARD.

linear and particle accelerator and neutron generator shall be for dollars (\$40.00).

SCHEDULE OF FEES FOR NUCLEAR REACTORS

A person possessing a nuclear regulatory commission license or permit authorizing a nuclear reactor in the state of Mississippi for commercial production of electrical energy utilizing special nuclear material sufficient to form a critical mass, shall pay an annual fee of three dollars (\$3.00) per megawatt (thermal) rating for each such reactor so licensed or permitted. When more than one reactor is on the same site, the fee or sum of each such reactor after the first shall be one dollar (\$1.00) per megawatt (thermal).

SCHEDULE OF FEES FOR OUT-OF-STATE LICENSES,

REGISTRANTS AND PERMITTEES

An out-of-state person possessing:

- (a) a license from the U. S. Nuclear Regulatory Commission;
- (b) a license or registration from an agreement state or licensing state; or
- (c) a registration or permit from a state radiological health program; and who enters the state of Mississippi to conduct the activities authorized in such license, registration or permit shall pay an annual fee in accordance with the above fee schedules.

SOURCES: Laws, 1984, ch. 488, § 215, eff from and after July 1, 1984.

MISSISSIPPI RADIOACTIVE WASTE TRANSPORTATION ACT

§ 45-14-51. Short title.

Sections 45-14-51 through 45-14-69 shall be known and may be cited as the "Mississippi Radioactive Waste Transportation Act."

SOURCES: Laws, 1982, ch. 432, § 1, eff from and after passage (approved April 1, 1982).

§ 45-14-53. Legislative purpose.

The legislature finds that the transportation of radioactive waste poses a potential threat to the health and safety of the people of Mississippi. The protection of public health and safety in the event of a transportation accident involving radioactive waste requires the preparation of emergency response procedures and the training of public safety officials in the proper response to such an incident. The costs of radiological emergency response planning for transportation accidents should properly be borne by shippers of radioactive waste.

and neutron generator shall be forty

§ 45-14-55. FOR NUCLEAR REACTORS

ear regulatory commission license or reactor in the state of Mississippi for trical energy utilizing special nuclear critical mass, shall pay an annual fee megawatt (thermal) rating for each permitted. When more than one (1) he fee or sum of each such reactor or (\$1.00) per megawatt (thermal).

OR OUT-OF-STATE LICENSES, S AND PERMITTEES

ssing:

Nuclear Regulatory Commission; from an agreement state or licensing

t from a state radiological health state of Mississippi to conduct the license, registration or permit shall with the above fee schedules.

5. eff from and after July 1, 1984.

WASTE TRANSPORTATION ACT

15-14-69 shall be known and may Radioactive Waste Transportation

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pose.

transportation of radioactive waste health and safety of the people of blic health and safety in the event olving radioactive waste requires sponse procedures and the train- the proper response to such an al emergency response planning d properly be borne by shippers

[11A Miss Supp]

SOURCES: Laws, 1982, ch. 432, § 2, eff from and after passage (approved April 1, 1982).

§ 45-14-55. Definitions.

The following terms shall have the meaning ascribed herein unless the context shall otherwise require:

(a) "Agency" shall mean the Mississippi Emergency Management Agency.

(b) "Radioactive waste" shall mean irradiated nuclear reactor fuel, and any other material which emits radiation which the Mississippi State Board of Health determines by regulation to present a significant threat to public health and safety.

(c) "Application" shall mean any request to the agency for a permit to transfer radioactive waste.

(d) "Carrier" shall mean and include a common, contract or private carrier of property by motor vehicle, railroad, aircraft or vessels, including barges.

(e) "Public safety official" shall mean police, fire, health, disaster or emergency management officials of the state or any of its political subdivisions.

(f) "Permit" shall mean the written authorization for the transportation of radioactive waste issued by the agency in accordance with §§ 45-14-57 et seq.

(g) "Fee" shall mean the amount of money levied against a carrier or shipper for a permit required hereunder.

(h) "Fund" shall mean the special emergency management revolving fund, authorized pursuant to the provisions of section 33-15-11(b)(12), Mississippi Code of 1972.

(i) "Shipper" shall mean any corporation or person to whom has been issued a license authorizing the possession, use or transfer of radioactive waste by the Mississippi State Board of Health, the U. S. Nuclear Regulatory Commission, any other agreement state or any agency of the federal government exempt from licensing by the U. S. Nuclear Regulatory Commission.

(j) "Person" shall mean any corporation or individual or governmental agency of the United States.

SOURCES: Laws, 1982, ch. 432, § 3, eff from and after passage (approved April 1, 1982).

§ 45-14-57. Permits for transportation.

(1) No person shall transport radioactive waste in Mississippi except in accordance with a permit issued by the Mississippi Emergency Management Agency.

[11A Miss Supp]

(2) The provisions of this section shall apply to all shipper carriers and persons transporting radioactive waste in this state and shall cover all transportation into, through, or originating in this state regardless of final destination.

(3) The provisions of this section shall apply to radioactive waste shipped by or for the United States government for military or national security purposes or which are related to the national defense. Nothing contained herein shall be construed as requiring the disclosure of any defense information as defined in the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended.

SOURCES: Laws, 1982, ch. 432, § 4, eff from and after passage (approved April 1, 1982).

§ 45-14-59. Application for permit; liability insurance; save harmless provision.

At least thirty (30) days prior to the date upon which a shipper intends to begin the movement of radioactive waste into or within this state, the shipper shall apply to the agency for an annual permit for such shipments. Before any radioactive wastes may be transported into or within this state, the shipper shall:

(a) Comply fully with all applicable laws and administrative rules and regulations, both state and federal, regarding the packaging and transportation of radioactive wastes.

(b) Provide any information as the agency deems necessary for the protection of the health and safety of the public and the environment.

(c) Provide evidence of liability insurance sufficient to protect the state and the public at large from possible radiological injury or damage to any person or property due to packaging or transportation.

(d) Certify to the agency that it will hold the State of Mississippi harmless for all claims, actions or proceedings in law or equity arising out of radiological injury or damage to persons or property occurring during the transportation of its radioactive waste into or within the state, including all costs of defending the same; provided, however, that nothing contained herein shall be construed as a waiver of the state's sovereign immunity.

SOURCES: Laws, 1982, ch. 432, § 5, eff from and after passage (approved April 1, 1982).

§ 45-14-61. Permit fee.

Upon the approval by the agency of an application for a permit

ETY AND GOOD ORDER

is section shall apply to all shippers, porting radioactive waste in this state into, through, or originating in destination.

his section shall apply to radioactive United States government for military or which are related to the national herein shall be construed as requiring information as defined in the Atomic Energy Reorganization Act of 1974, as

§ 4, eff from and after passage (approved

for permit; liability insurance; save

or to the date upon which a shipper at of radioactive waste into or within apply to the agency for an annual before any radioactive wastes may be state, the shipper shall:

licable laws and administrative rules and federal, regarding the packaging ve wastes.

as the agency deems necessary for and safety of the public and the

ility insurance sufficient to protect ge from possible radiological injury roperty due to packaging or trans-

it will hold the State of Mississippi or proceedings in law or equity or damage to persons or property ion of its radioactive waste into or osts of defending the same; pro- ontained herein shall be construed gn immunity.

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ncy of an application for a permit

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RADIATION PROTECTION PROGRAM

§ 45-14-69

to transport radioactive waste, the shipper shall pay a permit fee based on a schedule of fees established by the agency in consultation with the state board of health. The fee shall reflect the relative hazard and potential threat to the public health and safety of the radioactive waste, based upon its volume, radioactivity and toxicity. Upon receipt of such fee the agency shall issue a permit. Such fee shall be deposited into the fund established pursuant to the provisions of section 33-15-11(b)(12), Mississippi Code of 1972.

SOURCES: Laws, 1982, ch. 432, § 6, eff from and after passage (approved April 1, 1982).

§ 45-14-63. Notice of shipment.

The shipper shall provide to the director of the agency the advance notification of shipment required by and specified in the regulations promulgated by the Mississippi State Board of Health at the time of shipment. The agency will provide notification of shipment to appropriate state and local public safety officials.

SOURCES: Laws, 1982, ch. 432, § 7, eff from and after passage (approved April 1, 1982).

§ 45-14-65. Training program for public safety officials.

The agency, in conjunction with the state board of health, shall develop as soon as practicable a training program for public safety officials which shall include instruction on emergency response to transportation accidents involving radioactive waste.

SOURCES: Laws, 1982, ch. 432, § 8, eff from and after passage (approved April 1, 1982).

§ 45-14-67. Powers and duties of state board of health.

The Mississippi State Board of Health is hereby authorized and directed to promulgate regulations deemed necessary to implement the provisions of sections 45-14-51 through 45-14-69.

SOURCES: Laws, 1982, ch. 432, § 9, eff from and after passage (approved April 1, 1982).

§ 45-14-69. Penalties.

Any person who willfully violates any provision of sections 45-14-51 through 45-14-67 or any regulation or order issued hereunder may, upon conviction therefor, be punished by a fine of five thousand dollars (\$5,000.00) or by imprisonment for five (5) years, or both.

SOURCES: Laws, 1982, ch. 432, § 10, eff from and after passage (approved April 1, 1982).

[11A Miss Supp]