

Encl. to memo to
Various fm. Dale
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STATEMENT BY
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U. S. DEPARTMENT OF ENERGY
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
HEREFORD, TEXAS
FEBRUARY 11, 1985

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MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

I APPRECIATE THIS OPPORTUNITY TO PROVIDE THE SUBCOMMITTEE WITH INFORMATION ON THE POTENTIAL ECONOMIC IMPACTS OF DOE'S PROPOSED ACTIVITIES IN TEXAS AND THE EFFORTS THE DEPARTMENT IS MAKING TO DETERMINE THE EXTENT OF SUCH IMPACTS AND WAYS TO MINIMIZE NEGATIVE IMPACTS. BEFORE I DO THAT, I WOULD LIKE TO PROVIDE YOU WITH SOME BACKGROUND INFORMATION ON DOE'S NUCLEAR WASTE ISOLATION PROGRAM.

UNDER PROVISIONS OF THE NUCLEAR WASTE POLICY ACT OF 1982, DOE HAS THE RESPONSIBILITY FOR DEVELOPING A SAFE AND ENVIRONMENTALLY ACCEPTABLE WASTE DISPOSAL SYSTEM WHICH WOULD PROVIDE THE CAPABILITY FOR DOE TO BEGIN RECEIVING IN 1998 SPENT NUCLEAR FUEL AND HIGH-LEVEL WASTE FOR PERMANENT DISPOSAL. THE NUCLEAR WASTE POLICY ACT ESTABLISHED AN UNPRECEDENTED STEP-BY-STEP PROCESS BY WHICH THE PRESIDENT, THE U.S. CONGRESS, AFFECTED STATES, AFFECTED INDIAN TRIBES, DOE, THE NUCLEAR REGULATORY COMMISSION, AND THE ENVIRONMENTAL PROTECTION AGENCY, OTHER FEDERAL AND STATE AGENCIES AS WELL AS THE GENERAL PUBLIC CAN WORK TOGETHER IN SITING, CONSTRUCTING, AND OPERATING UNDERGROUND NUCLEAR WASTE REPOSITORIES. DOE ENCOURAGES FULL PUBLIC PARTICIPATION IN THIS OVERALL PROGRAM PROCESS. THE PRIMARY OBJECTIVE OF THE PROGRAM IS TO SAFELY ISOLATE HIGH-LEVEL RADIOACTIVE WASTE AND SPENT NUCLEAR FUEL BY DISPOSAL OF SUCH WASTES IN GEOLOGIC REPOSITORIES.

SINCE THE EARLY 1970S DOE HAS BEEN CONDUCTING STUDIES TO IDENTIFY SUITABLE SITES FOR DEEP GEOLOGIC REPOSITORIES FOR THE DISPOSAL OF NUCLEAR HIGH-LEVEL WASTE. THE REPOSITORIES ARE BEING DESIGNED TO RECEIVE AND EMLACE WASTE FROM COMMERCIAL NUCLEAR POWER PLANTS, WHERE IT IS NOW TEMPORARILY STORED IN POOLS OF WATER. SHOULD A REPOSITORY BE CONSTRUCTED IN BEDDED SALT, SUCH AS THAT AT THE TEXAS SITES, IT WOULD BE MORE THAN 2,500 FEET UNDERGROUND IN A STABLE, DRY SALT FORMATION. THE WASTE THAT WOULD BE EMLACED THERE WOULD BE IN SOLID FORM IN SPECIALLY DESIGNED WASTE PACKAGES. ISOLATION AND CONTAINMENT OF THE WASTE WOULD BE ASSURED THROUGH BOTH NATURAL AND ENGINEERED BARRIERS BETWEEN THE WASTE AND THE HUMAN ENVIRONMENT. NATURAL BARRIERS WOULD INCLUDE THE ROCK FORMATION IN WHICH THE REPOSITORY IS LOCATED, AS WELL AS THE SURROUNDING GEOLOGIC FORMATIONS. ENGINEERED BARRIERS WOULD INCLUDE A CORROSION-RESISTANT METAL CANISTER, A CANISTER OVERPACK, REPOSITORY BACKFILL, SHAFT SEALS, AND THE WASTE FORM ITSELF.

AS PART OF THE PROCESS OF DEVELOPING REPOSITORIES, LAND UNITS HAVE BEEN SCREENED TO IDENTIFY POSSIBLE SITES. SITES BEING CONSIDERED FOR THE FIRST REPOSITORY ARE IN SEVERAL TYPES OF ROCK, INCLUDING SALT DEPOSITS, BASALT (SOLIDIFIED LAVA), AND TUFF (COMPACTED VOLCANIC ASH). SITES IN CRYSTALLINE ROCK, SUCH AS GRANITE, ARE BEING CONSIDERED FOR THE SECOND REPOSITORY. THE PROCESS FOR IDENTIFYING POSSIBLE SITES FOR GEOLOGIC REPOSITORIES AND EVALUATING THEIR POTENTIAL INVOLVES THE COLLECTION AND ANALYSIS OF DETAILED GEOLOGIC, HYDROLOGIC, ENVIRONMENTAL, AND SOCIOECONOMIC DATA.

IN FEBRUARY 1983, FOLLOWING PASSAGE OF THE NUCLEAR WASTE POLICY ACT, DOE FORMALLY NOTIFIED THE STATES OF LOUISIANA, MISSISSIPPI, NEVADA, TEXAS, UTAH, AND WASHINGTON THAT THEY CONTAINED POTENTIALLY ACCEPTABLE SITES FOR THE FIRST REPOSITORY. DOE ISSUED IN DECEMBER 1984 DRAFT ENVIRONMENTAL ASSESSMENTS (EAS) FOR REVIEW AND COMMENT FOR ALL THE NINE SITES IN THE SIX STATES. THE FINAL EAS, TO BE ISSUED LATE THIS SUMMER, WILL SERVE AS THE BASIS FOR A DECISION BY THE SECRETARY OF ENERGY ON FIVE SITES TO BE NOMINATED AND THREE TO BE RECOMMENDED FOR SITE CHARACTERIZATION. THE PURPOSE OF SITE CHARACTERIZATION IS TO GATHER THE DETAILED INFORMATION NECESSARY TO SELECT A SITE FOR THE CONSTRUCTION OF A REPOSITORY. IF, AT ANY TIME DURING SITE CHARACTERIZATION, A SITE IS FOUND TO BE UNSUITABLE IN ACCORDANCE WITH DOE 'S GENERAL GUIDELINES FOR THE RECOMMENDATION OF SITES FOR NUCLEAR WASTE REPOSITORIES, IT WILL BE ELIMINATED FROM FURTHER STUDY AND CONSIDERATION.

IN THE DRAFT EAS, DOE IS PROPOSING TO RECOMMEND FOR SITE CHARACTERIZATION A BEDDED SALT SITE IN DEAF SMITH COUNTY, TEXAS; A SITE IN TUFF AT YUCCA MOUNTAIN, NEVADA; AND A SITE IN BASALT AT THE HANFORD FACILITY IN WASHINGTON.

LATER I PLAN TO DISCUSS THE POSSIBLE ECONOMIC IMPACTS OF SITE CHARACTERIZATION AND REPOSITORY DEVELOPMENT OF THE DEAF SMITH SITE AS WELL AS THE ACTIVITIES THE DEPARTMENT WILL BE UNDERTAKING, IN COOPERATION WITH AFFECTED PARTIES, IN ORDER TO ASSESS THE EXTENT OF SUCH IMPACTS, AND PLAN FOR THEIR MITIGATION. FIRST, I WANT TO BRIEFLY DISCUSS TWO ISSUES WHICH WE KNOW ARE OF PARTICULAR CONCERN TO RESIDENTS OF THE PANHANDLE AREA. WE KNOW THEY ARE OF

PARTICULAR CONCERN TO YOU AS WELL, MR. CHAIRMAN. THESE ISSUES CONCERN THE POSSIBLE CONTAMINATION BY A HIGH-LEVEL WASTE REPOSITORY OF THE OGALLALA AQUIFER, WHICH IS THE PRIMARY SOURCE OF FRESH WATER FOR THE AREA, AND THE DELETERIOUS ECONOMIC IMPACTS THAT SOME FEEL THE MERE POSSIBILITY OF CONTAMINATION BY A NUCLEAR WASTE FACILITY MIGHT HAVE ON THIS AREA'S RICH AGRICULTURAL INDUSTRIES.

REGARDING THE OGALLALA AQUIFER, THE UNDERGROUND WORKINGS OF THE REPOSITORY WOULD BE LOCATED APPROXIMATELY 2,500 FEET BELOW GROUND SURFACE. THIS IS ABOUT 2,100 FEET BELOW THE BASE OF THE OGALLALA AND 1,500 FEET BELOW THE BASE OF THE DOCKUM GROUP, THE LOWER SET OF AQUIFERS. THE OGALLALA AQUIFER AND THE SANTA ROSA MEMBERS OF THE DOCKUM GROUP ARE THE TWO MAJOR FRESH WATER SOURCES IN THE AREA. A DEEP SALINE AQUIFER, CALLED THE WOLFCAMP, IS ABOUT 3,000 FEET BELOW THE HOST ROCK. THE PRESSURES IN THE VARIOUS AQUIFERS RESULT IN A DOWNWARD GRADIENT ACROSS THE HOST ROCK, WHICH MEANS THAT UPWARD MOVEMENT OF RADIONUCLIDES IS NOT LIKELY IF A DEEP UNDERGROUND RELEASE SHOULD OCCUR.

BOREHOLES AND SHAFTS ARE THE ONLY LIKELY PATHWAYS FROM THE OGALLALA TO THE HOST ROCK. THESE HOLES AND SHAFTS WILL HAVE SEVERAL SEALS AT VARIOUS DEPTHS TO ELIMINATE HYDRAULIC CONNECTION BETWEEN THE OGALLALA, THE DOCKUM AND THE HOST ROCK.

SINCE WATER TABLE LEVELS IN THE OGALLALA ARE ABOUT 300 FEET BELOW GROUND SURFACE, ANY SURFACE SPILL OR ACCIDENT WOULD NOT IMMEDIATELY COME IN CONTACT WITH THE GROUNDWATER TABLE. THIS WOULD ALLOW ADEQUATE TIME FOR CLEANUP PRIOR TO ANY CONTAMINATION OF THE AQUIFER.

A SERIES OF MONITORING WELLS WILL BE INSTALLED PRIOR TO SITE CHARACTERIZATION WORK. THESE MONITORING WELLS WILL BE SITED TO DETECT ANY CHANGES IN THE AQUIFER CAUSED BY THE EXPLORATORY SHAFT OR OTHER ACTIVITIES AT THE SITE. ALL MUD PITS AND SALT STORAGE FACILITIES WILL BE LINED AND MONITORED FOR LEAKAGE. SALT STORAGE PILES WILL HAVE RETENTION PONDS TO CONTAIN RUNOFF FROM PRECIPITATION. THE RUNOFF WILL BE EVAPORATED OR DISPOSED OF IN A LICENSED DISPOSAL FACILITY.

THUS, WE FEEL THAT NECESSARY PRECAUTIONS WILL BE TAKEN IN ORDER TO PREVENT ANY POSSIBLE CONTINUATION OF THE OGALLALA AND OTHER AQUIFERS IN THE AREA.

REGARDING POSSIBLE DELETERIOUS IMPACTS ON THIS REGION'S AGRICULTURAL INDUSTRIES, WE RECOGNIZE THAT THE PUBLIC PERCEPTION THAT PRODUCTS MIGHT BE CONTAMINATED, EVEN IF THEY ARE COMPLETELY SAFE TO CONSUME, COULD INFLUENCE THE DECISIONS OF CONSUMERS. WE UNDERSTAND THE CONCERN THAT THIS POTENTIAL PROBLEM POSES.

TWO FACTORS, HOWEVER, MIGHT SERVE TO DIMINISH THE PROBLEM. FIRST, MOST OF THE AGRICULTURAL PRODUCTS GROWN IN THE PANHANDLE REGION ARE SOLD OUTSIDE THE STUDY AREA. IN ADDITION, MANY OF THE LOCALLY GROWN PRODUCTS, SUCH AS SUGAR BEETS, WHEAT, AND SORGHUM ARE NOT IDENTIFIED SPECIFICALLY WITH A PARTICULAR REGION. FOR PRODUCTS THAT LACK A REGIONAL IDENTITY, CONSUMER ATTITUDES MIGHT NOT CHANGE AS A RESULT OF A REPOSITORY, THOUGH IT SEEMS CLEAR THAT FOR AGRICULTURAL GOODS THAT ARE PRODUCED AND SPECIFICALLY IDENTIFIED WITH THE REGION, THESE COULD BE A SHORT-TERM IMPACT ON CONSUMER ATTITUDES. SUCH IMPACTS ARE ADDRESSED IN THE DRAFT EAS AND WILL BE FURTHER ASSESSED DURING SITE CHARACTERIZATION.

ALTHOUGH THERE MIGHT BE SOME NEGATIVE CONSUMER REACTION TO REGIONALLY IDENTIFIED AGRICULTURAL PRODUCTS AT FIRST, OUR FEELING IS THAT AS SITE CHARACTERIZATION PROCEEDS (AND LATER, IF CONSTRUCTION AND OPERATION OF A REPOSITORY MOVES AHEAD) NEGATIVE ATTITUDES WILL DISSIPATE AS SAFE OPERATIONS ESTABLISH A POSITIVE RECORD OF SITE CHARACTERIZATION AND REPOSITORY ACTIVITIES. THE BEST ANTIDOTE TO FEAR, IN OUR OPINION, WILL BE THE RECORD OF SAFE OPERATIONS TO WHICH THE DEPARTMENT, AS WELL AS EPA AND NRC, THE AGENCIES THAT REGULATE OUR ACTIVITIES, ARE FIRMLY COMMITTED.

WE ARE ACUTELY AWARE OF THE CONCERNS RAISED REGARDING THE OGALLALA AQUIFER AND THE DELETERIOUS ECONOMIC IMPACTS THAT SOME FEEL THE MERE POSSIBILITY OF CONTAMINATION POSES FOR THIS AREA'S AGRICULTURAL INDUSTRIES. WE RECOGNIZE THAT THESE ARE PROBLEMS OF DEEP CONCERN, AND WE WILL BE LOOKING CLOSELY AT THEM DURING THE NEXT SEVERAL YEARS. BETWEEN NOW AND THE END OF SITE CHARACTERIZATION SOME FOUR-TO-FIVE YEARS DOWN THE ROAD, DETAILED STUDIES WILL BE CONDUCTED FOCUSING ON, AMONG OTHER THINGS, POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS, INCLUDING THE ISSUES IDENTIFIED ABOVE. INCIDENTALLY, I WANT TO EMPHASIZE THAT BETWEEN NOW AND THE YEAR 1998, NO HIGH-LEVEL RADIO-ACTIVE WASTE OR SPENT NUCLEAR FUEL WILL BE EMPLACED WITHIN A REPOSITORY, AND EVEN THEN -- IN 1998 -- ONLY RELATIVELY SMALL QUANTITIES WILL BEGIN TO BE RECEIVED. AS I MENTIONED BEFORE, IF DURING THE COURSE OF THESE STUDIES OR FOLLOWING THEIR COMPLETION A SITE IS DEEMED UNSUITABLE IN ACCORDANCE WITH OUR SITING GUIDELINES, IT WILL BE ELIMINATED FROM FURTHER CONSIDERATION AS A POTENTIAL REPOSITORY SITE AND THE SITE WILL BE RETURNED TO ITS ORIGINAL CONDITION.

THE DEPARTMENT OF ENERGY WILL NOT RECOMMEND FOR DEVELOPMENT AS A REPOSITORY ANY SITE WE DO NOT HAVE FULL CONFIDENCE IN; THE NUCLEAR REGULATORY COMMISSION WILL NOT APPROVE ANY LICENSING APPLICATION FROM THE DEPARTMENT THAT IT FEELS IS FLAWED. WE FEEL THAT OVER THE NEXT SEVERAL YEARS OF FURTHER STUDY WE WILL BE ABLE TO ESTABLISH THE SAFETY OF A DEEP, GEOLOGIC REPOSITORY FOR AQUIFERS SUCH AS THE OGALLALA AS WELL AS PROVIDE AMPLE EVIDENCE THAT THE FEARS ASSOCIATED WITH DEVELOPMENT OF A REPOSITORY ARE TRANSITORY IN NATURE AND SHOULD HAVE NO LASTING OR PERMANENT EFFECT ON THE ECONOMY OF A REGION.

AS YOU KNOW, MR. CHAIRMAN, FOLLOWING RECOMMENDATION BY DOE OF ONE SITE FOR THE DEVELOPMENT OF A REPOSITORY, WHICH WILL NOT OCCUR BEFORE 1990, A STATE MAY CHOOSE TO ISSUE A NOTICE OF DISAPPROVAL CONCERNING THE RECOMMENDATION. SUCH A NOTICE WOULD EFFECTIVELY VETO FURTHER WORK ON A REPOSITORY IN THAT STATE UNLESS SUCH A NOTICE IS OVERRIDDEN BY A JOINT RESOLUTION OF BOTH HOUSES OF CONGRESS. THEREFORE, A STATE HAS RECOURSE TO THAT STATUTORY MECHANISM TO PREVENT CONSTRUCTION OF A REPOSITORY WITHIN ITS BOUNDARIES.

THE DRAFT EA FOR THE DEAF SMITH SITE DISCUSSES, IN DETAIL, THE POTENTIAL SOCIAL AND ECONOMIC EFFECTS OF SITE CHARACTERIZATION AND REPOSITORY DEVELOPMENT SHOULD THE SITE BE NOMINATED AND RECOMMENDED. PROJECTED CHANGES IN THE POPULATION, ECONOMY, PUBLIC SERVICES, FISCAL STRUCTURE, AND SOCIAL STRUCTURE OF THE SOCIOECONOMIC STUDY AREA RESULTING FROM PROJECT ACTIVITIES HAVE BEEN ANALYZED. THE STUDY AREA COVERS AN APPROXIMATELY 50-MILE RADIUS (COMMUTING DISTANCE) AROUND THE SITE INCLUDING DEAF SMITH, OLDHAM, POTTER, RANDALL, CASTRO, PARKER, AND SWISHER COUNTIES IN TEXAS AND CURRY AND QUAY COUNTIES IN

NEW MEXICO. LOCAL WORKERS WOULD BE EXPECTED TO COMMUTE FROM THIS NINE-COUNTY AREA. IN-MIGRATING PROJECT WORKERS AND THEIR FAMILIES WOULD ALSO BE EXPECTED TO RELOCATE HERE. IMPACTS ON LOCAL COMMUNITIES DEPEND LARGELY ON WORK FORCE REQUIREMENTS, THE NUMBER OF LOCAL RESIDENTS THAT CAN BE HIRED, IN-MIGRATING WORK FORCE CHARACTERISTICS, AND THE LOCATION PREFERENCES OF IN-MIGRATING WORKERS.

WHILE THERE ARE A VARIETY OF SOCIAL AND ECONOMIC CHANGES ASSOCIATED WITH SITE CHARACTERIZATION AND REPOSITORY DEVELOPMENT, DOE WILL WORK TO MINIMIZE OR AVOID DELETERIOUS PROJECT-RELATED IMPACTS. BECAUSE OF THE LOCAL AVAILABILITY OF MATERIALS AND WORKERS, CONTRACTORS WILL BE ENCOURAGED TO HIRE AND PURCHASE LOCALLY. THIS WILL MEAN THAT FEWER PEOPLE WOULD NEED TO IN-MIGRATE FOR JOBS. ECONOMIC BENEFITS TO A LOCAL AREA COULD BE MAXIMIZED, THEREFORE. JOB TRAINING PROGRAMS FOR AREA RESIDENTS COULD ALSO ALLOW GREATER NUMBERS OF EXISTING RESIDENTS TO BE HIRED FOR REPOSITORY-RELATED JOBS. OTHER MEASURES FOR REDUCING COMMUNITY IMPACTS ARE PRESENTLY UNDER STUDY.

SITE CHARACTERIZATION IMPACTS

OVERALL, IMPACTS DURING SITE CHARACTERIZATION ARE EXPECTED TO BE MINIMAL. THE WORK FORCE REQUIRED DURING SITE CHARACTERIZATION RANGES FROM APPROXIMATELY 220 TO 360 PEOPLE OVER A FOUR-YEAR PERIOD. THE PEAK REQUIREMENT OF 360 WORKERS WILL OCCUR DURING THE EARLY MONTHS OF SITE CHARACTERIZATION. A WIDE RANGE OF SKILLS WILL BE NEEDED DURING THIS PHASE OF THE PROGRAM INCLUDING THOSE OF WELDERS, PLUMBERS, ELECTRICIANS, MINERS, HEAVY EQUIPMENT OPERATIONS,

LABORERS, AND GEOLOGISTS. TOTAL SITE CHARACTERIZATION COSTS ARE ESTIMATED TO BE IN THE ONE-HALF TO ONE BILLION DOLLAR RANGE. THE EXPLORATORY SHAFT AND GEOLOGIC ACTIVITIES OCCURRING DURING THE FOUR-TO-FIVE YEAR SITE CHARACTERIZATION PHASE ARE ESTIMATED TO COST \$270 MILLION. ABOUT 70 PERCENT OF THIS WOULD BE USED FOR MATERIALS AND 30 PERCENT FOR SALARIES. MANY SERVICES WOULD BE SUBCONTRACTED AND SUBCONTRACTS ARE LIKELY TO BE SUBJECT TO COMPETITIVE BIDDING. THE TYPES OF SUBCONTRACTS BIDDED WOULD INCLUDE THOSE FOR DRILLING SERVICES, SECURITY SERVICES, AND BUILDING MATERIALS SUCH AS CONCRETE, STEEL, LUMBER, SMALL EQUIPMENT, FUEL, AND OTHER BUILDING SUPPLIES. SINCE SOME OF THESE SERVICES ARE LIKELY TO BE ACQUIRED LOCALLY, BUSINESSES IN THE AREA WOULD BENEFIT FROM THESE TYPES OF PURCHASES. THE AMOUNT OF LOCAL PURCHASES AND THE NUMBER OF LOCAL RESIDENTS WHO WOULD BE EMPLOYED DURING SITE CHARACTERIZATION DEPENDS ON THE MIX OF LOCAL AND OUTSIDE CONTRACTS THAT ARE AWARDED. BASED ON EXPERIENCE AT THE WASTE ISOLATION PILOT PLANT IN NEW MEXICO, THE PERCENTAGE OF LOCAL RESIDENTS WHO COULD BE HIRED DURING THE PEAK SITE CHARACTERIZATION PHASE IS EXPECTED TO RANGE BETWEEN 10 AND 25 PERCENT. APPROXIMATELY 180 ADDITIONAL INDIRECT JOBS WOULD BE CREATED IN LOCAL RETAIL AND COMMERCIAL BUSINESSES DURING THE PEAK PHASE. THESE JOBS ARE CREATED PRIMARILY AS A RESULT OF PURCHASES MADE BY THE WORK FORCE FOR PERSONAL NEEDS (FOOD, CLOTHING, HOUSING, ENTERTAINMENT). ALL OF THE INDIRECT JOBS ARE EXPECTED TO BE FILLED BY LOCAL RESIDENTS. THUS, TOTAL PEAK PERIOD JOBS WOULD NUMBER 540.

IN ADDITION TO PROJECT-RELATED EMPLOYMENT AND EXPENDITURES IN THE REGION, THERE WOULD BE OTHER PROJECT-RELATED ECONOMIC CHANGES. FOR EXAMPLE, THE TOTAL LAND REQUIRED AND PROTECTED FOR SITE CHARACTERIZATION ACTIVITIES REPRESENTS APPROXIMATELY 0.6 PERCENT OF DEAF SMITH COUNTY. THE DISPLACED LAND WOULD BE AGRICULTURAL AND, CONSEQUENTLY, THERE MAY BE SOME ASSOCIATED LOSS IN AGRICULTURAL REVENUE, DEPENDING ON THE AMOUNT OF LAND WITHDRAWN DURING SITE CHARACTERIZATION. IN VIEW OF THE RELATIVELY SMALL ACREAGE THAT WOULD BE WITHDRAWN FROM PRODUCTION, LOST REVENUE THAT WOULD HAVE BEEN GENERATED BY CROPS WOULD BE EXTREMELY SMALL WHEN COMPARED TO THE TOTAL CROP REVENUE GENERATED IN THE VICINITY. ORDINARILY, LAND ACQUIRED BY DOE WOULD ALSO GENERATE A CHANGE IN THE LOCAL TAX BASE SINCE FEDERAL LAND IS EXEMPT FROM TAXATION. CONGRESS, HOWEVER, HAS PROVIDED A GRANT IN LIEU OF TAX PROVISION IN THE NUCLEAR WASTE POLICY ACT THAT ADDRESSES THE PROBLEM OF LOST TAX REVENUES. I WILL ELABORATE ON THE PROVISION LATER IN MY DISCUSSION.

COMMUNITY REVENUES AND EXPENDITURES WOULD ALSO BE AFFECTED DURING CHARACTERIZATION. SINCE PROJECT-RELATED WORKERS AND THEIR FAMILIES ARE EXPECTED TO RELOCATE TO AMARILLO, HEREFORD, CANYON, AND VEGA, ADDITIONAL DEMANDS FOR SERVICES WOULD BE PLACED ON THESE COMMUNITIES. APPROXIMATELY 695 NEW RESIDENTS ARE EXPECTED TO MOVE TO THE AREA. THE MAJORITY OF PEOPLE (442) ARE EXPECTED TO RELOCATE TO AMARILLO, WITH 160 GOING TO HEREFORD, 40 TO CANYON, 24 TO VEGA, AND 29 TO RURAL AREAS. INCREASED REQUIREMENTS FOR HOUSING, HOSPITAL BEDS, FIRE PROTECTION, AND POLICE PROTECTION ARE ANTICIPATED

IN SOME OF THESE COMMUNITIES. FOR EXAMPLE, FIVE ADDITIONAL TEACHERS WOULD BE REQUIRED IN AMARILLO AND TWO WOULD BE REQUIRED IN HEREFORD TO MEET THE NEEDS OF NEW RESIDENTS. SOME OF THESE DEMANDS COULD BE MET THROUGH THE USE OF EXISTING SERVICE CAPACITY. FIRE PROTECTION, FIRST AID, AND SECURITY WOULD BE PROVIDED ON SITE AND WOULD BE COORDINATED WITH COUNTY OFFICIALS. THIS SHOULD REDUCE THE DEMAND FOR THESE SERVICES FROM DEAF SMITH AND SURROUNDING COUNTIES.

WHILE SOME ADDITIONAL COSTS MAY BE INCURRED BY THE COMMUNITIES DURING CHARACTERIZATION, GOVERNMENT REVENUES WOULD ALSO INCREASE FROM SEVERAL SOURCES. AMARILLO, HEREFORD, CANYON, AND VEGA COULD RECEIVE ADDITIONAL REVENUE FROM THE SALES TAX ON GOODS AND SERVICES PURCHASED BY THE NEW RESIDENTS AND SITE CHARACTERIZATION CONTRACTORS. ADDITIONAL OCCUPANCY OF THE AREA MOTEL AND HOTEL ROOMS WOULD GENERATE TRANSIENT ROOM TAXES IN THE SOCIO-ECONOMIC STUDY AREA. IN ADDITION, THE STATE AND UNITS OF GENERAL LOCAL GOVERNMENT THAT HAVE TAXING AUTHORITY OVER THE SITE IN DEAF SMITH COUNTY WOULD RECEIVE A GRANT IN LIEU OF TAXES. THE NUCLEAR WASTE POLICY ACT SECTION 116(c)(3) REQUIRES THAT THIS GRANT BE PAID TO STATES AND UNITS OF GENERAL LOCAL GOVERNMENT IN AN AMOUNT EQUAL TO THE TAXES THEY WOULD HAVE RECEIVED IF THIS WERE A PRIVATE INDUSTRIAL ENTERPRISE. THIS GRANT WILL BE MADE TO STATES AND APPROPRIATE UNITS OF GENERAL LOCAL GOVERNMENT EACH FISCAL YEAR UNTIL ACTIVITIES AT THE SITE ARE TERMINATED.

REPOSITORY IMPACTS

IF, AFTER SITE CHARACTERIZATION, THE DEAF SMITH COUNTY SITE IS SELECTED AND APPROVED FOR THE LOCATION OF A REPOSITORY, THE SOCIAL AND ECONOMIC EFFECTS WOULD BE SIMILAR IN TYPE TO THOSE DESCRIBED ABOVE. THE MAGNITUDE OF THE IMPACTS, HOWEVER, WOULD BE GREATER, AND WOULD BE THE SUBJECT OF DETAILED ANALYSIS IN THE ENVIRONMENTAL IMPACT STATEMENT REQUIRED UNDER THE ACT.

REPOSITORY DEVELOPMENT IS A RELATIVELY LONG-TERM PROJECT, WITH THE CONSTRUCTION PHASE LASTING APPROXIMATELY SEVEN YEARS AND THE OPERATION PHASE LASTING AT LEAST ANOTHER 26 YEARS. THE WORK FORCE REQUIREMENTS ARE FAIRLY STABLE DURING REPOSITORY CONSTRUCTION AND OPERATION, WITH A RELATIVELY SLOW DECLINE IN THE WORK FORCE DURING DECOMMISSIONING.

THE WORK FORCE REQUIRED DURING REPOSITORY CONSTRUCTION BEGINS WITH 540 WORKERS IN THE FIRST YEAR AND INCREASES TO 1,370 WORKERS IN THE FIFTH YEAR. THE PEAK REQUIREMENT, FOR 1,500 WORKERS, OCCURS DURING THE OPERATIONS PHASE OF THE PROJECT. THE PROJECT WOULD REQUIRE MANY TYPES OF SKILLED WORKERS, INCLUDING CARPENTERS, ELECTRICIANS, IRONWORKERS, LABORERS, ENGINEERS, PIPEFITTERS, AND TEAMSTERS. IN ADDITION TO REPOSITORY JOBS, IT IS ESTIMATED THAT 1,500 INDIRECT JOBS WOULD BE CREATED IN LOCAL RETAIL AND COMMERCIAL BUSINESSES DURING THE PROJECT PEAK.

THE LOCAL LABOR FORCE IS EXPECTED TO FILL UP TO 55 PERCENT OF THE JOBS CREATED DURING THE REPOSITORY-PROJECT PEAK. THUS, UP TO 1,650 OF THE 3,000 DIRECT AND INDIRECT JOBS WOULD BE FILLED BY LOCAL RESIDENTS. AMARILLO IS THE LARGEST CITY NEAR THE SITE AND HAS THE GREATEST DIVERSITY OF SKILLED WORKERS;

THEREFORE, IT IS EXPECTED TO PROVIDE MANY OF THE LOCAL WORKERS DURING THESE YEARS. HEREFORD AND CANYON CAN ALSO BE EXPECTED TO PROVIDE A SUBSTANTIAL NUMBER OF WORKERS. THE AVAILABILITY OF TRAINING PROGRAMS MAY HELP PREPARE LOCAL WORKERS TO FILL POSITIONS ON THE PROJECT.

BUSINESS ACTIVITY IN THE AREA IS EXPECTED TO INCREASE DUE TO PURCHASES RELATED TO REPOSITORY DEVELOPMENT AND PURCHASES BY THE WORK FORCE FOR PERSONAL NEEDS--FOOD, CLOTHING, HOUSING, AND ENTERTAINMENT. INCREASES IN TRADE, GOVERNMENT, AND THE SERVICE SECTORS OF THE ECONOMY ARE ANTICIPATED. INCREASES IN DEMAND, PARTICULARLY FOR HOUSING AND OTHER GOODS IN THE SMALLER COMMUNITIES, MAY RESULT IN INFLATIONARY PRESSURES ON PRICES, CAUSING ADVERSE EFFECTS ON LOCAL RESIDENTS, PARTICULARLY THOSE ON FIXED INCOMES. RESIDENTIAL PROPERTY VALUES IN SURROUNDING COMMUNITIES MAY INCREASE AS THE IN-MIGRATING POPULATION PLACES ADDITIONAL DEMANDS ON THE HOUSING MARKET. MOST CONSUMER PURCHASES WILL OCCUR IN THE COMMUNITIES OF AMARILLO, CANYON, HEREFORD, AND VEGA WHERE WORKERS RESIDE.

BASED ON A PRELIMINARY ENGINEERING DESIGN, CAPITAL CONSTRUCTION COSTS ARE ESTIMATED TO BE ABOUT \$1.6 BILLION (1983 DOLLARS) DURING THE SEVEN-YEAR CONSTRUCTION PHASE. TOTAL PURCHASES DURING OPERATION WILL BE ABOUT \$3.7 BILLION AND SOME PORTION OF THIS WILL BE SPENT IN THE SOCIOECONOMIC STUDY AREA. THESE PURCHASES WILL BE SPREAD OVER THE ENTIRE OPERATING PERIOD.

AS INDICATED IN THE DISCUSSION OF SITE CHARACTERIZATION IMPACTS, REPOSITORY DEVELOPMENT WOULD ALSO AFFECT COMMUNITY COSTS AND REVENUES. A TOTAL OF 2,670 NEW RESIDENTS ARE ANTICIPATED DURING THE PROJECT PEAK. THE

MAJORITY OF REPOSITORY WORKERS AND FAMILIES MOVING TO THE AREA ARE EXPECTED TO LOCATE IN AMARILLO, CANYON, HEREFORD, AND VEGA. THESE NEW RESIDENTS WOULD REQUIRE COMMUNITY SERVICES SUCH AS EDUCATION, POLICE AND FIRE PROTECTION, WATER, SEWER, MEDICAL, AND RECREATION SERVICES. THESE SERVICE DEMANDS WOULD REQUIRE ADDITIONAL EXPENDITURES IN SOME COMMUNITIES.

THE NUCLEAR WASTE POLICY ACT, HOWEVER, PROVIDES FOR TECHNICAL AND FINANCIAL ASSISTANCE FOR ANY HOST STATE REQUESTING SUCH ASSISTANCE. THIS ASSISTANCE IS TO BE PROVIDED WITHIN SIX MONTHS FOLLOWING ISSUANCE OF A CONSTRUCTION AUTHORIZATION FROM THE U.S. NUCLEAR REGULATORY COMMISSION AND FOLLOWING THE INITIATION OF CONSTRUCTION ACTIVITIES AT THE SITE. DOE MUST SEEK TO ENTER INTO AN AGREEMENT WITH THE STATE ON THE AMOUNT OF FINANCIAL AND TECHNICAL IMPACT ASSISTANCE TO BE PROVIDED AND PROCEDURES TO BE FOLLOWED IN PROVIDING SUCH ASSISTANCE. IN ORDER TO RECEIVE THESE PAYMENTS, THE STATE MUST SUBMIT A REPORT TO THE SECRETARY OF ENERGY ON SOCIAL, ECONOMIC, PUBLIC HEALTH AND SAFETY, AND ENVIRONMENTAL IMPACTS THAT ARE LIKELY AS A RESULT OF THE DEVELOPMENT OF A REPOSITORY AT THE REPOSITORY SITE. DOE WILL PROVIDE FUNDS TO THE STATE IN ORDER TO PREPARE SUCH A REPORT.

IN CONCLUSION, MR. CHAIRMAN, I WISH TO EMPHASIZE OUR COMMITMENT TO FULL AND OPEN PARTICIPATION BY AFFECTED AND INTERESTED PARTIES IN IMPLEMENTING THE PROVISIONS OF THE NUCLEAR WASTE POLICY ACT. IF YOU HAVE QUESTIONS AT THIS TIME, WE WILL BE HAPPY TO ATTEMPT TO ANSWER THEM.