



WM SOCKET CONTROL CENTER

Department of Energy
Washington, DC 20585

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WM Record File

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WM Project: 10-11-16

Docket No. _____

PDR

LPDR B. G. S.

Mr. Bill Lilly
Nuclear Regulatory Commission
MS 623-SS
Washington, D.C. 20555

Distribution:

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PROGRAMMATIC MEMORANDUM OF AGREEMENT
AMONG
THE UNITED STATES DEPARTMENT OF ENERGY (DOE),
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION (COUNCIL),
AND THE
TEXAS STATE HISTORIC PRESERVATION OFFICER (SHPO)
FOR THE
FIRST NUCLEAR WASTE DEEP GEOLOGIC REPOSITORY PROGRAM
DEAF SMITH SITE, TEXAS

WHEREAS, the United States Department of Energy (DOE) has been directed by Congress under the Nuclear Waste Policy Act of 1982 (P.L. 97-425), to identify and evaluate sites for repositories for the permanent deep geological disposal of high-level radioactive waste and spent nuclear fuel; and

WHEREAS, the phased program for site selection for the first repository entails the following:

1. Identification of potentially acceptable sites for the repository (completed in February 1983).
2. Secretary of Energy's (Secretary) nomination of at least five sites as suitable for site characterization for the selection of the first repository, accompanied by an environmental assessment for each nominated site.
3. Secretary's recommendation to the President of three of the nominated sites for characterization as candidate sites.
4. Approval by the President of the candidate sites recommended by the Secretary.
5. Characterization of each candidate site approved by the President, including extensive data collection and analysis, and testing.
6. Recommendation by the Secretary to the President of one site from among the characterized sites for development of the repository, supported by a final environmental impact statement prepared pursuant to the National Environmental Policy Act and the Nuclear Waste Policy Act; and

WHEREAS, the undertaking, for purposes of this PMOA is: nomination; recommendation and approval for site characterization; and characterization for the first repository; and

6/16/86

WHEREAS, recommendation of one site as the first repository, and the entire site selection process for the second repository and other facilities specified in the Nuclear Waste Policy Act are not within the scope of this PMOA, but will be dealt with through additional consultation with the Advisory Council on Historic Preservation (Council) pursuant to the Council's regulations "Protection of Historic and Cultural Properties" (36 CFR 800) (Appendix 1); and

WHEREAS, the DOE has determined that the proposed undertaking potentially could have effects upon historic, prehistoric, archeological, architectural, and cultural properties included in or eligible for inclusion in the National Register of Historic Places (hereinafter referred to as "historic properties"); and

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966, Section 2(b) of Executive Order 11593, and Section 800.4 of the Council's regulations, DOE has requested the comments of the Council; and

WHEREAS, pursuant to 36 CFR 800.8(a) and (f) of the Council's regulations, DOE has requested the development of a PMOA to fulfill the DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations for all undertakings carried out in accordance with this PMOA; and

WHEREAS, the DOE, the Council, and the Texas State Historic Preservation Officer (SHPO), have consulted and will continue to consult and to review the undertakings to consider feasible and prudent alternatives to avoid, minimize, or satisfactorily mitigate adverse effects to historic properties;

NOW, THEREFORE, it is mutually agreed that implementation of the undertaking in accordance with the following stipulations will avoid or satisfactorily mitigate the adverse effects of the undertaking on historic properties and will, therefore, satisfy all of DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations.

STIPULATIONS

Upon Presidential approval of the Deaf Smith site, Texas, for site characterization, and when characterization actually occurs, the DOE will ensure that the following activities are carried out at the approved site:

1. MONITORING THE PMOA

The DOE will monitor compliance with this PMOA. Representatives of the DOE will ensure that the stipulations in this PMOA are satisfied in a complete and timely fashion and will report to the Council and Texas SHPO annually on progress in implementation. This annual report should include a compilation of the monitoring reports written during the year and previously reviewed by the SHPO as actions occurred.

2. COORDINATION

As soon as possible, before any earthmoving or other activities connected with site characterization that could affect a unit of land are undertaken on the site, and throughout the process, the DOE will:

- A. Consult with the appropriate Federal agencies to assure that their concerns, relevant to historic properties are met. The DOE will ensure that data, materials, and reports from its contractors will be available in a timely manner to those agencies during the course of on-going work relevant to this PMOA.
- B. Consult with the Texas SHPO. The DOE will ensure that data, materials, and reports from its contractors will be available in a timely manner to the Texas SHPO during the course of on-going work relevant to this PMOA.
- C. Contact the Bureau of Indian Affairs, the Texas SHPO, and local tribes with current or historic ties to the land, and other parties that have expressed interest to ensure identification and notification of all potentially involved American Indian groups. The DOE will continue its on-going consultation with American Indian groups having traditional cultural ties to the area. Consultation will be held to assure that significant properties of cultural or religious value to such groups are identified and avoided to the extent feasible. If such properties are identified and cannot be avoided, the DOE will consult further with the American Indian groups involved, the Texas SHPO, and the Council to seek ways to mitigate project effects on such properties. The DOE will consider recommended mitigation measures.

Consultation will be undertaken with reference to the Council's March, 1985, draft, "Guidelines for Consideration of Traditional Cultural Values in Historic Preservation Review" (Appendix 2).

3. WORKER EDUCATION PROGRAM

As early as possible after the site is approved for site characterization, and before a significant influx of workers arrives at the site, the DOE, with the advice of the Texas SHPO, will develop and implement a comprehensive worker education program for archeological and historic resources. The program will include, but need not be limited to, the following components:

- A. Distribution of information to all project workers and their dependents, informing them about the Archeological Resources Protection Act, warning against the unauthorized collection or disturbance of archeological materials, and explaining the requirements of reporting the discovery of such materials to appropriate authorities.
- B. If warranted, development of an education program using such techniques as slide presentations, brochures, and films to inform workers about local history and prehistory, the science of archeology and the importance of archeological resources.
- C. If warranted, development of a display and interpretation of local history and prehistory in an appropriate project facility on site.
- D. Placement of warning signs and physical barriers around highly visible sites which are potentially subject to vandalism.

4. RESEARCH DESIGN

The DOE, in consultation with the Texas SHPO, will develop and implement a research design to guide archeological and historical data recovery during site characterization. This research design shall:

- A. Be built on data identification already undertaken by DOE at the site. The work previously performed included a preliminary assessment (Phase I) of cultural resources for the Deaf Smith site and vicinity. This assessment consisted of a literature search and archival review which provided an analysis and evaluation of recorded sites. Potentially sensitive locations where unrecorded sites may be located were identified in the preliminary assessment and are found

at the site and vicinity. In addition, a limited number of 1.6 hectare (4 acre) cultural resource surveys at boreholes have been conducted.

- B. Be at a level of detail appropriate to the known and expected resource base at the site and its environs.
- C. Establish significant, defensible research questions to be addressed. Such questions should be developed with reference to the Council's Handbook, "Treatment of Archeological Properties", particularly Appendix A (Handbook) (Appendix 3), and the Texas State Historic Preservation Planning Process.
- D. Establish cost-effective strategies and methods for addressing the research questions.
- E. Identify actual and potential archeological and historic sites and areas that should be investigated in order to address the research questions, and which are subject to direct or indirect effect by the project.
- F. Be consistent with the Handbook, the Texas State Historic Preservation Planning Process, the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation" (Appendix 4) and, as applicable, the Secretary of the Interior's "Standards and Guidelines for Identification" (Appendix 5), and the "Standards of Research Performance" of the Society of Professional Archeologists (Appendix 6).
- G. Develop an approach for identifying and evaluating the significance of sites, and seeking determinations of eligibility or nominating sites to the National Register of Historic Places (National Register). DOE will work with the Texas SHPO to develop an efficient system for ensuring compliance with the regulations of the National Register (36 CFR Part 60)(Appendix 7).
- H. Should any objections regarding the eligibility of a property for the National Register be determined by any of the parties to this agreement to require review, the DOE will request a final determination from the Keeper of the National Register in accordance with 36 CFR Part 63.

5. CULTURAL RESOURCES SURVEY AND TREATMENT

- A. Before any earthmoving or other activities that could affect a unit of land are undertaken at the site in connection with site characterization, the DOE will ensure completion of cultural resources surveys on that unit of land. Such surveys will:
- i) be conducted to identify and evaluate historic properties on the basis of the criteria of the National Register (36 CFR Part 60) (Appendix 7);
 - ii) identify properties which may be subject to effect as determined with reference to the Council's regulations (36 CFR Part 800) (Appendix 1);
 - iii) be consistent with the research design developed pursuant to Stipulation 4.
- B. Cultural resources survey will concentrate on both on-site and off-site direct and indirect effects (such as impacts from construction, land-use changes, vandalism, and induced growth). Such effects are those which are reasonably foreseeable and can reasonably be tied to the project. Such potential effects will be those identified during on-going environmental planning, and in site planning and evaluation documents.
- C. Every effort will be made to design project activities to avoid damage to any historic property. Activities will be subject to quality control and DOE will seek to comply with the Texas Council of Archeology Standards.
- D. If avoidance of damage to historic properties is not possible, the DOE will develop and implement a data recovery plan in consultation with the Texas SHPO.
- i) Any data recovery plan prepared under this PMOA will be in accordance with the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation" (Appendix 4) and will incorporate the recommendations in Part III of the Council's Handbook, "Treatment of Archeological Properties" (Appendix 3).
 - ii) The data recovery plan will outline activity-specific and site-specific procedures to be followed in mitigating adverse impacts through data recovery. Further consultation will not be required unless conditions differ from those specified in this plan.

- iii) Permanent curation of any recovered artifacts will be coordinated with the Texas SRPO to assure use of a qualified local facility.

6. PROFESSIONAL QUALIFICATIONS

All required archeological work will be carried out under the direct supervision of a professional archeologist who meets the Certification Requirements of the Society of Professional Archeologists (Appendix 8) or the Secretary of the Interior's "Professional Qualifications Standards" (Appendix 9). Historic work will be carried out under the direct supervision of a professional historian, architectural historian or historical architect, as appropriate, minimally meeting the Secretary of the Interior's "Professional Qualifications Standards" for that given profession.

7. DOE CONTRACTORS

The DOE will ensure that contractors and subcontractors used in connection with this undertaking are provided copies of this PMOA and will comply with its terms.

8. DISPUTE RESOLUTION

- A. Disagreements regarding interpretation and implementation of this PMOA will be resolved by consultation between the DOE and the Texas SHPO, with participation by the Council, if necessary.
- B. Should disagreements not be resolved in accordance with Stipulation 8A, above, DOE will provide to the Council documents and information necessary to allow the Council to comment pursuant to its responsibilities under 36 CFR 800.6. Within 15 working days of receipt of such documents and information, the Council will:
 - i) provide the DOE a finding of fact and recommendations, after consideration of which the DOE will make a final decision in the matter; or
 - ii) notify the DOE that the matter will be scheduled for review and comment by the full Council or a panel (36 CFR 800.6(d)(1)), and conclude such review and comment within 45 days, after which the DOE will make a final decision in the matter.
- C. The DOE will provide to the Texas SHPO, the Council, and relevant agencies copies of all written objections, findings and recommendations or comments of the Council, determinations from the Keeper, and determinations of final action of its own.

9. COUNCIL COMMENTS

If the DOE is unable to carry out the terms of the PMOA, the DOE will not take or sanction any action or make any irreversible commitment that would result in an adverse effect on National Register or eligible properties within the scope of this PMOA or would foreclose the Council's consideration of avoidance or mitigation alternatives until it has obtained the Council's comments, pursuant to the Council's regulations, for each individual action carried out as part of the undertaking.

10. MODIFICATION

Any modification of this PMOA, to become effective, will require consultation and agreement among the signatories in the same manner as the original PMOA was developed and signed pursuant to 36 CFR 800.8(b).

11. EFFECTIVE DATE AND TERM

This PMOA will become effective upon ratification by the Chairman of the Advisory Council and will remain in effect until terminated by the DOE or the Council by thirty-days prior written notice to the other parties.

12. ON-GOING WORK

The DOE already has initiated implementation of various stipulations in this PMOA, and will not be required to begin them anew, but will continue on-going activities in satisfaction of the terms of this PMOA.

13. RECOMMENDATION OF ONE SITE FOR DEVELOPMENT AS THE FIRST REPOSITORY

The DOE will again seek the comments of the Council and the appropriate State Historic Preservation Officer pursuant to Section 106 and the Council's regulations prior to the Secretary's recommendation of one site for development as the first repository site.

Execution of this PMOA evidences that the DOE has afforded the Council a reasonable opportunity to comment on the subject undertakings and their effects on historic properties and that the DOE has taken into account the effects of its undertakings on historic properties.

Director, Office of Civilian Radioactive Waste Management, Department of Energy

Date -----

Project Manager, Salt Repository Project Office

Date -----

Executive Director, Advisory Council on Historic Preservation

Date -----

Texas State Historic Preservation Officer

Date -----

Chairman, Advisory Council on Historic Preservation

Date -----

PROGRAMMATIC MEMORANDUM OF AGREEMENT
AMONG
THE UNITED STATES DEPARTMENT OF ENERGY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE
WASHINGTON STATE HISTORIC PRESERVATION OFFICER
FOR THE
FIRST NUCLEAR WASTE DEEP GEOLOGIC REPOSITORY PROGRAM
REFERENCE REPOSITORY LOCATION, HANFORD SITE, WASHINGTON

WHEREAS, the United States Department of Energy (DOE) has been directed by Congress under the Nuclear Waste Policy Act of 1982 (P.L. 97-425), to identify and evaluate sites for repositories for the permanent deep geological disposal of high-level radioactive waste and spent nuclear fuel; and

WHEREAS, the phased program for site selection for the first repository entails the following:

1. Identification of potentially acceptable sites for the repository (completed in February 1983).
2. Nomination of at least five sites as suitable for site characterization for the selection of the first repository, accompanied by an environmental assessment for each nominated site.
3. Recommendation to the President of three of the nominated sites for characterization as candidate sites.
4. Approval by the President of the candidate sites recommended by the Secretary.
5. Characterization of each candidate site approved by the President, including extensive data collection and analysis, and testing.
6. Recommendation by the Secretary to the President of one site from among the characterized sites for development of the repository, supported by a final environmental impact statement prepared pursuant to the National Environmental Policy Act and the Nuclear Waste Policy Act; and

WHEREAS, the undertaking, for purposes of this Programmatic Memorandum of Agreement (PMOA) is considered to be: nomination; recommendation and approval for site characterization; and characterization for the first repository; and

11/7/85

WHEREAS, development of one site as the first repository, and the entire site selection process for the second repository and other facilities specified in the Nuclear Waste Policy Act are not within the scope of this PMOA, but will be dealt with through additional consultation with the Advisory Council on Historic Preservation (Council); and

WHEREAS, the DOE has determined that the proposed undertaking potentially could have effects upon historic, prehistoric, archeological, architectural, and cultural properties included in or eligible for inclusion in the National Register of Historic Places (hereinafter referred to as "historic properties"); and

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966, Section 2(b) of Executive Order 11593, and Section 800.4 of the Council's regulations "Protection of Historic and Cultural Properties" (36 CFR Part 800)(Appendix 1), the DOE has requested the comments of the Council; and

WHEREAS, pursuant to 36 CFR 800.8(a) and (f) of the Council's regulations, the DOE has requested the development of a PMOA to fulfill the DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations for all undertakings carried out in accordance with this PMOA; and

WHEREAS, the DOE, the Council, and the Washington State Historic Preservation Officer (SHPO) have consulted and will continue to consult and to review the undertaking to consider feasible and prudent alternatives to avoid, minimize, or satisfactorily mitigate adverse effects to historic properties;

NOW, THEREFORE, it is mutually agreed that implementation of the undertaking in accordance with the following stipulations will avoid or satisfactorily mitigate the adverse effects of the undertaking on historic properties and will, therefore, satisfy all of the DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations.

STIPULATIONS

If the President approves the Reference Repository Location (RRL) at Hanford site, Washington, for site characterization, and if characterization actually occurs, the DOE will ensure that the following activities are carried out when required at the approved site:

1. MONITORING THE PMOA

The DOE will monitor compliance with this PMOA. Representatives of the DOE will ensure that the stipulations in this PMOA are satisfied in a complete and timely fashion and will report to the Council and Washington SHPO annually on progress in implementation.

2. COORDINATION

As soon as possible, and before any earthmoving or other activities connected with site characterization that could affect a unit of land are undertaken on the site and throughout the process, the DOE will:

- A. Consult with the appropriate Federal agencies to ensure that their concerns relevant to historic properties are met.
- B. Consult with the Washington SHPO throughout the process. The DOE will ensure that data, materials, and reports from its contractors will be available to the Washington SHPO and appropriate Federal agencies and Indian tribes during the course of on-going work relevant to this PMOA.
- C. Contact the Bureau of Indian Affairs, the Washington SHPO, the Yakima Indian Nation, the Nez Perce tribe, the Confederated Tribes of the Umatilla Indian Nation, local tribes with current or historic ties to the land, and other parties that have expressed interest to ensure identification and notification of all potentially involved Indian groups. Continue its on-going consultation with American Indian groups having traditional cultural ties to the area. Consultation will be held to assure that significant properties of traditional cultural or religious value such groups are identified and avoided to the extent feasible.

Consultation will be undertaken with reference to the Council's draft, "Guidelines for Consideration of Traditional Cultural Values in Historic Preservation Review" (Appendix 2).

If such properties are identified and cannot be avoided, the DOE will consult further with the American Indian group(s) involved, the Washington SHPO, and the Council to seek ways to mitigate project effects on such properties. The DOE will consider recommended mitigation measures.

3. WORKER EDUCATION PROGRAM

As early as possible after the site is selected for site characterization, and before a significant influx of workers arrives at the site, the DOE, with the advice of the Washington SHPO, will develop and implement a comprehensive worker education program for archeological and historic resources. The program will include, but need not be limited to, the following components:

- A. Distribution of information to all project workers and their dependents, informing them about the Archeological Resources Protection Act, warning against the unauthorized collection or disturbance of archeological materials, and encouraging them to report the discovery of such materials to appropriate authorities.
- B. Development of an education program using such techniques as slide presentations, brochures, and films to inform workers and their dependents about local history and prehistory, the science of archeology and the importance of archeological resources.
- C. Establishment of a recreational archeology activity for voluntary participation by interested workers on the site during their leisure hours, supervised by a local archeological group such as the Mid-Columbia Archeological Society. This activity should be integrated within the overall archeological program.
- D. If warranted, development of a display and interpretation of local history and prehistory in an appropriate project facility on site.

4. RESEARCH DESIGN

The DOE, in consultation with the Washington SHPO, will develop and implement a research design to guide archeological survey and data recovery during site characterization. This research design:

- A. Should be built on work already undertaken at the site. Since 1968 several archeology studies and reports relevant to the Hanford site have been produced (see attached references). The studies were carried out initially for the U.S. Atomic Energy Commission, a DOE predecessor at Hanford and, later, Energy Research and Development Administration (ERDA) and DOE and the Washington

Public Power Supply System (see References 1, 2, and 3). Most recently, two additional studies have been documented and referenced in the Environmental Assessment which are more specific to the Basalt Waste Isolation Project itself. Both studies were specific to the reference repository location (RRL); one addressed the archeological inventory of the RRL, and the other a detailed survey and monitoring of the RRL chosen drill hole locations (see references 4 and 5). The latter reports also gave rise to a recent "Request for Determination of Eligibility" concerning the remnants of an old wagon road through the RRL known as the White Bluffs Road. The determination by the Washington SHPO, was that the property in question was not eligible for inclusion in the National Register. Upon completion of the PMOA it is the projects' intent to discuss the above documentation with the Washington SHPO and determine what, if any, additional studies might be necessary.

- B. Should be at a level of detail appropriate to the known and expected resource base at the site and its environs, if additional studies are necessary.
- C. Should establish significant, defensible research questions to be addressed. Such questions should be developed with reference to the Council's Handbook, "Treatment of Archeological Properties", particularly Appendix A (Handbook) (Appendix 3), and the Washington State Historic Preservation Planning Process.
- D. Should establish cost-effective strategies and methods for addressing the research questions.
- E. Should identify actual and potential archeological sites and areas that should be investigated in order to address the research questions, and which are subject to direct or indirect effect by the project.
- F. Should be consistent with the Handbook, The Washington State Historic Preservation Planning Process, the Secretary of the Interior's "Standards and Guidelines for Archeological Documentation" (Appendix 4) and, as applicable, the Secretary of the Interior's "Standards and Guidelines for Identification" (Appendix 5), and the "Standards of Research Performance" of the Society of Professional Archeologists (Appendix 6).
- G. Should develop an approach for identifying and evaluating the significance of sites, and seeking determinations of eligibility or nominating sites to the National Register of Historic Places (National Register). The DOE will work with the Washington SHPO to develop an efficient system for ensuring compliance with the regulations of the National Register (36 CFR Part 60)(Appendix 7).

5. ARCHEOLOGICAL SURVEY AND TREATMENT

- A. Before any earthmoving or other activities that could affect a unit of land are undertaken at the site in connection with site characterization, the DOE will ensure completion of archeological surveys on that unit of land. Such surveys will:
- i) be conducted to identify and evaluate historic properties on the basis of the criteria of the National Register (36 CFR Part 60) (Appendix 7);
 - ii) identify properties which may be subject to effect as determined with reference to the Council's regulations (36 CFR Part 800)(Appendix 1);
 - iii) be consistent with the research design developed pursuant to Stipulation 4, Washington SHPO standards and guidelines, and the Secretary of the Interior's "Standards and Guidelines for Identification" (Appendix 5)
- B. Survey should concentrate on both on-site and off-site direct and indirect effects (such as impacts from construction, land-use changes, vandalism, and induced growth). Such effects are those which are reasonably foreseeable and can reasonably be tied to the project. Such potential effects will be those identified during on-going environmental planning, and in site planning and evaluation documents.
- C. Every effort will be made to design project activities to avoid damage to any historic property.
- D. If avoidance of damage to historic properties is not possible, the DOE will develop and implement a data recovery plan in consultation with the Washington SHPO.
- i) Any archeological data recovery plan prepared under this PMOA will be in accordance with the Secretary of the Interior's "Standards and Guidelines for Archeological Documentation" (Appendix 4) and will incorporate the recommendations in Part III of the Council's Handbook, "Treatment of Archeological Properties" (Appendix 3).
 - ii) The data recovery plan will outline activity-specific and site-specific procedures to be followed in mitigating adverse impacts through data recovery. Further consultation will not be required unless conditions differ from those specified in this plan.

6. PROFESSIONAL QUALIFICATIONS

All required archeological work will be carried out under the direct supervision of a professional archeologist who meets the Membership Requirements of the Society of Professional Archeologists (Appendix 8) or the Secretary of the Interior's "Professional Qualifications Standards" (Appendix 9).

7. DOE CONTRACTORS

The DOE will ensure that contractors and subcontractors used in connection with this undertaking are provided copies and will comply with the terms of this PMOA.

8. DISPUTE RESOLUTION

- A. Disagreements regarding interpretation and implementation of this PMOA will be resolved by consultation between the DOE and the Washington SHPO, with participation by the Council, if necessary.
- B. Should any objections regarding the eligibility of a property for the National Register be determined by the DOE to require review, or should any objections by the Council address the eligibility of a property for the National Register, the DOE will request a final determination of eligibility from the Keeper of the National Register who will respond within 30 days.
- C. The DOE will provide to the Council documents and information necessary to allow the Council to comment pursuant to its responsibilities under 36 CFR 800.6. Within 15 working days of receipt of such documents and information, the Council will:
 - i) provide the DOE a finding of fact and recommendations, after consideration of which the DOE will make a final decision in the matter; or
 - ii) notify the DOE that the matter will be scheduled for review and comment by the full Council or a panel, and conclude such review and comment within 45 days thereafter, after which the DOE will make a final decision in the matter.
- D. The DOE will provide to the Washington SHPO, the Council, and relevant agencies copies of all written objections, findings and recommendations or comments of the Council, determinations from the Keeper, and determinations of final action of its own.

9. COUNCIL COMMENTS

If the DOE is unable to carry out the terms of the FMOA, the DOE will not take or sanction any action or make any irreversible commitment that would result in an adverse effect on National Register or eligible properties within the scope of this FMOA or would foreclose the Council's consideration of avoidance or mitigation alternatives until it has obtained the Council's comments, pursuant to the Council's regulations, for each individual action carried out as part of the undertaking.

10. MODIFICATION

Any modification of this FMOA, to become effective, will require consultation and agreement among the signatories in the same manner as the original FMOA was developed and signed, pursuant to 36 CFR 800.8(b)

11. EFFECTIVE DATE AND TERM

This FMOA will become effective upon the latest date of execution by the signatories, and will remain in effect until terminated by the DOE or the Council by thirty-days prior written notice to the other parties.

12. ON-GOING WORK

The DOE already has initiated implementation of various stipulations in this FMOA, and will not be required to begin them anew, but will continue on-going activities in satisfaction of the terms of this FMOA.

13. RECOMMENDATION OF ONE SITE FOR DEVELOPMENT AS THE FIRST REPOSITORY

The DOE will again seek the comments of the Council and the appropriate State Historic Preservation Officer pursuant to Section 106 and the Council's regulations prior to the Secretary's recommendation of one site for development as the first repository site.

Execution of this PMOA evidences that the DOE has afforded the Council a reasonable opportunity to comment on the subject undertaking and its effects on historic properties and that the DOE has taken into account the effects of its undertaking on historic properties.

Director, Office of Civilian Radioactive Waste Management, Department of Energy

Date -----

Chairman, Advisory Council on Historic Preservation

Date -----

Washington State Historic Preservation Officer

Date -----

Project Manager, Basalt Waste Isolation Project

Date -----

REFERENCES:

1. Archeological Reconnaissance, Hanford Atomic Works-USAEC, National Park Service, Washington State University, by D.G. Rice, 1968 (44 pages)
2. Overview of Cultural Resources on the Hanford Reservation in South Central Washington State, by David G. Rice, Troy, Idaho, 1980 (130 pages)
3. Cultural Resources at Hanford by USDOE and WPPSS, Richland, Washington, D.G. Rice (53 pages)
4. SD-BWI-TA-006, Archeological Inventory of the Basalt Waste Isolation Project, Hanford Reservation, Washington, by D.G. Rice, released July 5, 1984, dated November 1981 (40 pages)
5. SD-BWI-TA-007, Archeological Survey and Monitoring of Initial Excavations within the Basalt Waste Isolation Project Reference Repository Location and Associated Drill Borehole Site Locations, released July 9, 1984, dated September 30, 1983 (14 pages)

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PROGRAMMATIC MEMORANDUM OF AGREEMENT
AMONG
THE UNITED STATES DEPARTMENT OF ENERGY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE
NEVADA STATE HISTORIC PRESERVATION OFFICER
FOR THE
FIRST NUCLEAR WASTE DEEP GEOLOGIC REPOSITORY PROGRAM
YUCCA MOUNTAIN, NEVADA

WHEREAS, the United States Department of Energy (DOE) has been directed by Congress under the Nuclear Waste Policy Act of 1982 (P.L. 97-425), to identify and evaluate sites for repositories for the permanent deep geological disposal of high-level radioactive waste and spent nuclear fuel; and

WHEREAS, the phased program for site selection for the first repository entails the following:

1. Identification of potentially acceptable sites for the repository (completed in February 1983).
2. Secretary's nomination of at least five sites as suitable for site characterization for the selection of the first repository, accompanied by an environmental assessment for each nominated site.
3. Secretary's recommendation to the President of three of the nominated sites for characterization as candidate sites.
4. Approval by the President of the candidate sites recommended by the Secretary.
5. Characterization of each candidate site approved by the President, including extensive data collection and analysis, a testing.
6. Recommendation by the Secretary to the President of one site from among the characterized sites for development as the repository, supported by a final environmental impact statement prepared pursuant to the National Environmental Policy Act and the Nuclear Waste Policy Act; and

WHEREAS, the undertaking, for purposes of this Programmatic Memorandum of Agreement (PMA) is considered to be: nomination; recommendation and approval for site characterization; and characterization for the first repository; and

WHEREAS, development of one site as the first repository, and the entire site selection process for the second repository and other facilities specified in the Nuclear Waste Policy Act are not within the Scope of this PMA, but will be dealt with through additional consultation with the Advisory Council on Historic Preservation (Council) per the Council's Regulations "Protection of Historic and Cultural Properties" (36 CFR Part 800) (Appendix 1); and

WHEREAS, the DOE has determined that the proposed undertaking potentially could have effects upon historic, prehistoric, archeological, architectural, and cultural properties included in or eligible for inclusion in the National Register of Historic Places (hereinafter referred to as "historic properties"); and

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966, Section 2(b) of Executive Order 11593, and Section 800.4 of the Council's regulations, the DOE has requested the comments of the Council; and

WHEREAS, pursuant to 36 CFR 800.8(a) and (f) of the Council's regulations, the DOE has requested the development of a PMOA to fulfill the DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations for all undertakings carried out in accordance with this PMOA; and

WHEREAS, the DOE, the Council, and the Nevada State Historic Preservation Officer (SHPO), have consulted and will continue to consult and to review the undertaking to consider feasible and prudent alternatives to avoid, minimize, or satisfactorily mitigate adverse effects to historic properties;

NOW, THEREFORE, it is mutually agreed that implementation of the undertaking in accordance with the following stipulations will avoid or satisfactorily mitigate the adverse effects of the undertaking on historic properties and will, therefore, satisfy all of the DOE's responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations.

STIPULATIONS

If the President approves the Yucca Mountain site, Nevada, for site characterization, and if characterization actually occurs, the DOE will ensure that the following activities are carried out when required at the approved site:

1. MONITORING THE PMOA

The DOE will monitor compliance with this PMOA. Representatives of the DOE will ensure that the stipulations in this PMOA are satisfied in a complete and timely fashion and will report to the Council and Nevada SHPO annually on progress in implementation. This annual report should include a compilation of the monitoring reports written during the year and previously reviewed by the SHPO as actions occurred.

2. COORDINATION

As soon as possible, ~~and~~ before any earthmoving or other activities connected with site characterization that could affect a unit of land are undertaken on the site, and throughout the process the DOE will:

- A. Consult with the appropriate Federal agencies to ensure that their concerns relevant to historic properties are met. The DOE will ensure that data, materials, and reports from its contractors will be available to appropriate Federal agencies during the course of on-going work relevant to this PMOA.
- B. Consult with the Nevada SHPO. The DOE will ensure that data, materials, and reports from its contractors will be available to the Nevada SHPO during the course of on-going work relevant to this PMOA.

- C. Contact the Bureau of Indian Affairs, the Western Shoshone, and other local tribes with current or historic ties to the land, and other parties that have expressed interest to ensure identification and notification of all potentially involved American Indian groups. The DOE will continue its on-going consultation with American Indian groups having traditional cultural ties to the area. Consultation will be held to assure that significant properties of traditional cultural or religious value to such groups are identified and avoided to the extent feasible.

Consultation will be undertaken with reference to the Council's March, 1985, draft, "Guidelines for Consideration of Traditional Cultural Values in Historic Preservation Review" (Appendix 2).

If such properties are identified and effects on them cannot be avoided, the DOE will consult further with the American Indian group(s) involved, the Nevada SHPO, and the Council to seek ways to mitigate project effects on such properties. The DOE will consider recommended mitigation measures.

3. WORKER EDUCATION PROGRAM

As early as possible after the site is approved for site characterization, and before a significant influx of workers arrives at the site, the DOE, with the advice of the Nevada SHPO, will develop and implement a comprehensive worker education program for archeological and historic resources. The program will include, but need not be limited to, the following components:

- A. Distribution of information to all project workers and their dependents, informing them about the Archeological Resources Protection Act, warning against the unauthorized collection or disturbance of archeological materials, and encouraging them to report the discovery of such materials to appropriate authorities.
- B. Development of an education program using such techniques as slide presentations, brochures, and films to inform workers and their dependents about local history and prehistory, the science of archeology and the importance of archeological resources.
- C. If warranted, establishment of a professionally organized recreational archaeological activity for voluntary participation by interested and Nevada Test Site (NTS) badged workers during a scheduled time. This activity should be designed to provide interested workers an opportunity to view the archaeological record in a positive way, to discourage private collection of archaeological materials, and to encourage a responsible attitude toward archaeological resources.
- D. Continued maintenance of the Nevada Test Site Archaeology Display in the Mercury Cafeteria.

4. RESEARCH DESIGN

The DOE, in consultation with the Nevada SHPO, will develop and implement a research design to guide archeological and historical survey and data recovery during site characterization. This research design should:

- A. Should be built on data identification already undertaken by DOE at Yucca Mountain and elsewhere on the Nevada Test Site. Systematic cultural resources surveys have been conducted in advance of land disturbing activities on the Nevada Test Site since 1977 and the area has been studied by archeologists since 1940 (see attached references). Cultural resource overviews have been prepared for both Yucca Mountain and Pahute and Rainier Mesas (references 17 and 23) and intensive archaeological surveys have identified and evaluated over 200 cultural resources on over 17 square miles of the proposed repository locality (references 4, 6, 7, 10-12, 14, 15, 19-22, 27, 28, 31-32). Test excavations have been performed at 29 sites and long term management procedures and research objectives have been recommended specifically for the Yucca Mountain locality (reference 16). Related cultural resource studies also have been conducted in Yucca Flat (reference 29), on the Groom Range (reference 30) and throughout the Nellis Bombing and Gunnery Range (references 1, 2, 8, 9).
- B. Be at a level of detail appropriate to the known and expected resource base at the site and its environs.
- C. Establish significant, defensible research questions to be addressed. Such questions should be developed with reference to the Council's Handbook, "Treatment of Archeological Properties", particularly Appendix A (Handbook) (Appendix 3), and the Nevada State Historic Preservation Planning Process.
- D. Establish cost-effective strategies and methods for addressing the research questions.
- E. Identify actual and potential archeological and historic sites and areas that should be investigated in order to address the research questions, and which are subject to direct or indirect effect by the project.
- F. Be consistent with the Handbook, cultural resources management programs developed by the Air Force for the Nellis Bombing Range, and by the Bureau of Land Management for subject lands in the public domain, the Nevada State Historic Preservation Planning Process, the Secretary of the Interior's Standards and Guidelines for Documentation (Appendix 4) and, as applicable, the Secretary of the Interior's "Standards and Guidelines for Identification" (Appendix 5), and the "Standards of Research Performance" of the Society of Professional Archaeologists (Appendix 6).

- G. Should develop an approach for identifying and evaluating the significance of sites, and seeking determinations of eligibility or nominating sites to the National Register of Historic Places (National Register). The DOE will work with the Nevada's SHPO to develop an efficient system for ensuring compliance with the regulations of the National Register (36 CFR Part 60)(Appendix 7).
- H. Should any objections regarding the eligibility of a property for the National Register be determined by any of the parties to this agreement to require review, the DOE will request a final determination from the Keeper of the National Register who will respond within 30 days.

5. CULTURAL RESOURCES SURVEY AND TREATMENT

- A. Before any earthmoving or other activities that could affect a unit of land are undertaken at the site in connection with site characterization, the DOE will continue to ensure completion of archeological surveys on that unit of land. Such surveys will:
- i) be conducted to identify and evaluate historic properties on the basis of the criteria of the National Register (36 CFR Part 60) (Appendix 7);
 - ii) identify properties which may be subject to effect as determined with reference to the Council's regulations (36 CFR Part 800)(Appendix 1);
 - iii) be consistent with the research design developed pursuant to Stipulation 4.
- B. Surveys will concentrate on both on-site and off-site direct and indirect effects (such as impacts from construction, land-use changes, vandalism, and induced growth). Such effects are those which are reasonably foreseeable and can reasonably be tied to the project. Such potential effects will be those identified during the EIS scoping process, in on-going environmental planning, and in site planning and evaluation documents.
- C. DOE will make every effort to design project activities to avoid damage to any historic property.
- D. If avoidance of damage to historic properties is not possible, the DOE will develop and implement a data recovery plan in consultation with the Nevada SHPO.
- 1) Any archeological data recovery plan prepared under this PMOA will be in accordance with the Secretary of the Interior's Standards and Guidelines for Documentation (Appendix 4) and will incorporate the recommendations in Part III of the Council's Handbook, "Treatment of Archeological Properties" (Appendix 3).

- ii) The data recovery plan will outline activity-specific and site-specific procedures to be followed in mitigating adverse impacts through data recovery. Further consultation will not be required unless conditions differ from those specified in this plan.
- iii) Permanent curation of any recovered artifact should be coordinated with the Nevada SHPO to assure use of a qualified local facility.

6. PROFESSIONAL QUALIFICATIONS

All required archeological work will be carried out under the direct supervision of a professional archeologist who meets the Membership Requirements of the Society of Professional Archaeologist (Appendix 8) or the Secretary of the Interior's "Professional Qualifications Standards" (Appendix 9). Historic work will be carried out under the direct supervision of a professional historian who meets the Secretary of the Interior's "Professional Qualifications Standards for Historians" (Appendix 9)

7. DOE CONTRACTORS

The DOE will ensure that contractors and subcontractors used in connection with this undertaking are provided copies of this EMOA and will comply with its terms.

8. DISPUTE RESOLUTION

- A. Disagreements regarding interpretation and implementation of this EMOA will be resolved by consultation between the DOE and the Nevada SHPO, with participation by the Council, if necessary.
- B. The DOE will provide to the Council documents and information necessary to allow the Council to comment pursuant to its responsibilities under 36 CFR 800.6. Within 15 working days of receipt of such documents and information, the Council will:
 - i) provide the DOE a finding of fact and recommendations, after consideration of which the DOE will make a final decision in the matter; or
 - ii) notify the DOE that the matter will be scheduled for review and comment by the full Council or a panel (36 CFR 800.6(d)(1)), and conclude such review and comment within 45 days thereafter, after which the DOE will make a final decision in the matter.

- D. The DOE will provide to the Nevada SHPO, the Council, and relevant agencies copies of all written objections, findings and recommendations or comments of the Council, determinations from the Keeper, and determinations of final action of its own.

9. COUNCIL COMMENTS

If the DOE is unable to carry out the terms of the PMOA, the DOE will not take or sanction any action or make any irreversible commitment that would result in an adverse effect on National Register or eligible properties within the scope of this PMOA or would foreclose the Council's consideration of avoidance or mitigation alternatives until it has obtained the Council's comments, pursuant to the Council's regulations, for each individual action carried out as part of the undertaking.

10. MODIFICATION

Any modification of this PMOA, to become effective, will require consultation and agreement among the signatories in the same manner as the original PMOA was developed and signed, pursuant to 36 CFR 800.8(b).

11. EFFECTIVE DATE AND TERM

This PMOA will become effective upon the latest date of execution by the signatories, and will remain in effect until terminated by the DOE or the Council by thirty-days prior written notice to the other parties.

12. ON-GOING WORK

The DOE already has initiated implementation of various stipulations in this PMOA, and will not be required to begin them anew, but will continue on-going activities in satisfaction of the terms of this PMOA.

13. RECOMMENDATION OF ONE SITE FOR DEVELOPMENT AS THE FIRST REPOSITORY

The DOE will again seek the comments of the Council and the appropriate State Historic Preservation Officer pursuant to Section 106 and the Council's regulations prior to the Secretary's recommendation of one site for development as the first repository site.

Execution of this MOA evidences that the DOE has afforded the Council a reasonable opportunity to comment on the subject undertaking and its effects on historic properties and that the DOE has taken into account the effects of its undertaking on historic properties.

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Director, Office of Civilian Radioactive Waste Management, Department of Energy
Date

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Chairman, Advisory Council on Historic Preservation
Date

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Nevada State Historic Preservation Officer
Date

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Project Manager, Nevada Nuclear Waste Storage Investigations
Date