APPENDIX C

PROCEDURES

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HANFORD CULTURAL AND HISTORIC RESOURCES PROCEDURES

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Hanford Cultural and Historic Resources Program
DOE-RL NHPA SECTION 106 REVIEW PROCEDURES

Projects requiring a Section 106 review will be conducted in the following manner (see attached Figure for a schematic representation):

1 Following receipt of a complete *Request for Cultural Resources Review* form by the Contractor, the DOE-RL Cultural and Historic Resources Program Manager (DOE-RL Manager) will determine whether the proposed project is the type with no potential to effect historic properties or (following approval of counterpart regulations) is exempt from Section 106 review.

a. If the project has no potential to effect properties (or is exempt), the Contractor will notify the Project Point of Contact that the project may proceed.

b. If the project may affect historic properties (or is not exempt from Section 106 review), the DOE-RL Manager (through the Contractor) will fax the *Request for Cultural Resources Review* form to the SHPO, Tribes and/or Interested Parties. The fax will contain a map of the proposed project area, a description of the Area of Potential Effect (APE), and a summary of existing information (i.e., literature review) based on data within the HCRL Cultural Resources Data Files.

c. The SHPO, Tribes and/or Interested Parties will have 10 calendar days from receipt of the fax to respond. Response time may be extended to a maximum of 30 calendar days if a request is made to the DOE-RL Manger within the initial 10 day period. Responses shall be sent to the DOE-RL Manager, who will provide copies to the Contractor.

2. Following completion of the 10 day review period, or extended period if one were provided, the Contractor shall prepare a Cultural Resources Review (CRR) of the proposed project. The project will be assigned a tracking number (i.e., HCRC #) by the HCRL Section 106 Coordinator (376-4626).

a. If no comments have been received, the Contractor will write a draft CRR that presents the results of the literature review, field inspection (if any), and recommendations for additional work (if required).

b. If comments have been received, the Contract shall incorporate the comments within the information required in 2 (a) above.

c. The DOE-RL Manager shall review the CRR, provide modification/additions as required, sign the CRR indicating that these are DOE-RL's findings, and send the CRR to the SHPO, Advisory Council on Historic Preservation (if appropriate), Tribes and/or Interested Parties.

d. The SHPO, ACHP, Tribes and/or interested Parties shall have 30 calendar days from receipt of the CRR to respond to the DOE-RL Manger.

e. The DOE-RL Manager shall provide a copy of the letter transmitting the CRR to SHPO, ACHP (if appropriate), Tribes, and Interested Parties, as well as any responses received to the Contractor.

3. Following completion of the 30 day review period:

a. If the APE has been surveyed and no historic properties are present, or historic properties are present but will not be affected by the project, or no additional comments have been received that would alter these findings, the Contractor shall notify the Project Point of Contact that the project may proceed.

b. If comments requiring additional work not already anticipated in the CRR have been received within the comment period, the Contractor shall amend the CRR and notify the Project Point of Contact that additional actions are necessary before the project may proceed.

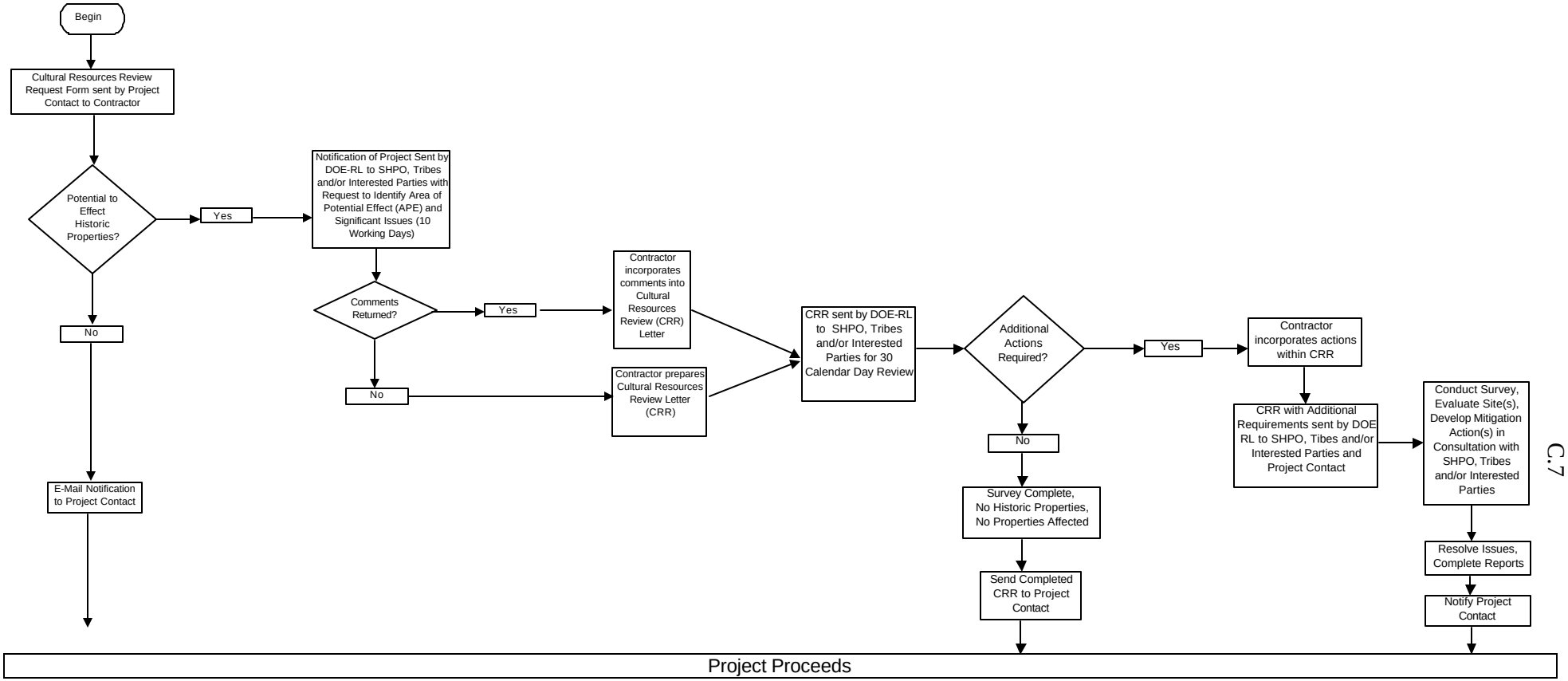
c. Using established procedures, and in consultation with the SHPO, ACHP (if appropriate), Tribes and/or Interested Parties, the DOE-RL Manager (through the Contractor) shall conduct a field survey, evaluate sites for eligibility for listing in the National Register of Historic Places, and/or develop mitigation measures that avoid or minimize impacts to resources within the APE.

d. The Contractor shall carry out the actions determined in 3 (c) above.

e. The DOE-RL Manager shall route all findings, determinations, and reports through the SHPO, ACHP (if appropriate), Tribes and/or Interested Parties for review, and provide a copy of any comments received to the Contractor.

f. Following revision, if any, of all findings, determinations, and reports, the Contractor shall notify the Project Point of Contact that the project may proceed.

DOE-RL NHPA Section 106 Review Procedures



Hanford Cultural and Historic Resources Program
Field Procedures

Purpose/Scope

Conducting field surveys in support of Section 106 and Section 110 of the National Historic Preservation Act are routine operations of the Hanford Cultural and Historic Resources Program (HCHRP). These procedures provide instructions on how to conduct surveys to ensure consistency and quality of data collected.

Applicability

These procedures apply to all cultural resource surveys conducted by HCHRP staff.

Definitions

Artifact – anything with form or position that cannot be attributed to natural processes
Historic manufacture – manufactured 50 or more years ago
Feature – a nonportable, nondiscrete artifact or close association of artifacts
Paleontological faunal remains – animal remains that may or may not be fossilized

Prerequisites

Attendance at pre-project meeting(s) is mandatory; each person must read and sign the Health and Safety Plan.

The Reporting ARPA Violations procedure shall be taken in the field at all times.

Survey Equipment

Field Survey Procedure
Field Book
Pen(s)
Work clothing suited to weather conditions
Substantial footwear (leather boots)
Gloves
Drinking Water
Fire Extinguisher
Compass
Tape Measures/Scales
Sample Bags
Flagging Materials
Survey Vest/Backpack
Project information and maps
Camera, video recorder, and film

Global Positioning System (GPS) and supporting equipment and batteries
Cellular phone and emergency phone numbers

Equipment for Hand-Auger Testing and Excavation

Auger
Shovel
Wire Cutters
Root Cutters
Bucket Auger
Trowel
Screen
Ladder
Backhoe or other trenching equipment (if required)

Work Instructions

Prior to fieldwork, a records and literature review shall be performed. This pre-field research includes the study of site/isolate location maps, previous reports, aerial photographs, and General Land Office (GLO) plats. A summary of previous studies within 1 km is made including sites and isolates found, and whether any historic properties were identified. This information should be shared with team members prior to field survey and shall be incorporated in the Hanford Cultural Resources Survey Report Narrative.

Upon arriving at the work site record the following information in field book:

- Indicate notebook number and page number on each page
- Date/Time of Day
- Project Name
- Names of team members
- Weather conditions
- Route taken to arrive at sites (names of roads, distances and directions as to turns). Use the vehicle odometer to determine the distance.

The Crew Chief shall assign team members one or more of the following duties prior to beginning the survey (responsibilities for these duties are listed in this section of the HCRL Procedures Manual):

- Site Recorder
- Feature Recorder
- Mapper
- Photographer/Videographer

When leaving the site:

- Never leave equipment in the field.
- Read over the day's journal entry, verify that all information is noted in the journal that is required to write a site report (See Survey and Site Recording Procedures below).

Upon arriving back at Sigma 5:

- Help unload the vehicle.
- Turn in any paper work to the Crew Chief.
- Assist Crew Chief with any other tasks.

Survey and Site Recording Procedures

The Crew Chief shall indicate the area to be surveyed and assign each member a position in that area. The survey shall be conducted in parallel transects, spaced no more than 20 meters apart. Surveyors shall visually scan the area at least 5 meters to either side of the center transect line.

The Crew Chief shall complete the Hanford Cultural Resources Survey Form (see Attachment A) during field activity.

If an artifact(s) is located during the survey, notify the Crew Chief. The following procedure shall then be followed:

Recording an Isolated Find

An isolated find is considered a group of two or fewer artifacts found within less than 50 m of each other, and/or greater than 100 m from a site. To record an isolated find:

- Ask the Crew Chief for the isolate number to be used (see Establishing Site & Isolate Numbers Procedure, CR-08).
- Determine the location (using a Global Positioning System [GPS] if available) and plot it on the field map.
- Complete all information contained on the Isolate Form (Attachment B), date, and sign.
- If collection is required, see Collection Procedures Section of this procedure.

Recording a Site

Each find of one or more features (nonportable, nondiscrete artifacts), or of three or more artifacts with 20 meters of each other, can be designated as a site.

As designated prior to beginning the survey, each member of the team was assigned one or more duties. Enter the following information in field book prior to beginning assigned task(s):

- The temporary site number assigned by the Crew Chief. (Example: HT-92-012) This number shall be in the margin of each page that contains information regarding that site.
- Note which person was assigned to each task.
- Clearly note in the field book when site recording has been completed and when subsequent notes not relating to the site are recorded.

Site Recorder

1. Write legibly.
2. Record all field data on the Archaeological site form (see Attachment C). If no information is available write "none" or "N/A."
3. Record any other notes or feelings about the site in the notebook.
4. Make a complete list of all artifacts found while walking around the site. This list must include:
   - A complete description of all artifacts that are diagnostic to aid in dating the site. This includes measurements of historic artifacts in inches/feet and prehistoric artifacts in metric.
   - Note all trademarks by sketching, size, and color of print.
   - Note types of glaze/slip, ceramic, clear/colored glass, and size. Milk cans must be measured accurately to the 16th of an inch. Note seam type and end seal on can.
   - Trace the outline of any prehistoric artifact (example: projectile point) and measure accurately (in metric) the length, width, thickness. Large artifacts (net weight, etc.) should be measured and described. All artifacts must be described as to color and material.
   - If numerous artifacts are found of the same type (example: glass fragments), measure a given area, count number in that area, and estimate total of the entire by multiplying.
   - Note the highest concentration of artifacts, measure 1 meter square and count the artifacts in that square meter, that gives the "maximum density of artifacts" information needed to complete the site form.
   - The Crew Chief shall advise staff if artifact collection shall be done.

Feature Recorder

A site may contain more than one feature, for example: a concrete foundation, an irrigation pipeline, and a stack of milled lumber. The Team Leader shall assign feature numbers.

1. Write legibly.
2. If any one feature consists of more than one component, that feature would be drawn separately and labeled.

3. Carefully measure the feature using metric scale (for prehistoric artifacts) or inches/feet (for historic artifacts) and draw on graph paper.
4. Pace large distances. Estimates are not reliable. Shorter distances and sizes of artifacts, etc. can be measured with a roll-up measuring tape.
5. Include on every sheet of paper:
   - Site number
   - Feature recorder name
   - Date
6. Note in the field book any feelings, thoughts, or observations made regarding the site.

Mapper

The mapper is responsible for creating a detailed sketch map (to scale) that can be refined and duplicated in the lab.

1. Write legibly.
2. Use metric measurements, metric graph paper, a transparent ruler, a transparent protractor, and pencil so corrections can be made at the same time. Know the distance of your pace (i.e., 2 paces equals 1 meter, etc.)
3. Indicate North on the scale map. This shall eliminate confusion. Face the site looking North and begin drawing, this shall keep the map oriented.
4. When including the different objects and places on the map, determine how many degrees from North each is, note it on the map, then pace to the object to determine the distance. Plot it on the map. Return to the original spot. Adjust accordingly for large sites.
5. Symbols can be used to indicate different objects on the map. Include the meanings in a legend.
6. Include the scale used to draw the map.
7. Note in the field book any observations, thoughts, or feelings regarding the site.

Photographer/Videographer

The photographer/videographer is responsible for taking care of the camera and video recorder, film, Photo Log sheets and Video Log sheets (see Attachments D & E) and recording descriptions of all photographs and video clips taken. Prior to beginning a survey, the Crew Chief or designated assistant should verify the presence of the following:

- Several log sheets are in the carrying cases.
- Additional rolls of film and batteries are in the carrying cases.

When photographing or videotaping a site, the following procedures are recommended:

1. Verify that the camera or video numbers and log sheet numbers correspond.
2. Take an overview photo of the site with a person included for scale (Crew Chief is responsible for assuring Informed Consent of any non-HCRL personnel prior to entering the field).
3. Photograph/videotape artifacts that are diagnostic.
4. Photograph/videotape any trademarks if large enough to be read when printed.
5. Photograph/videotape any object that is “unknown” for a possible identification later that might help evaluate and date the site.
6. Limit the number of photographs/video taken of the same type of object.
7. If possible, place an object in the photograph/video for scale (a penny, graph paper, short ruler)
8. Photograph/videotape features using a metric ruler for scale.
9. Note in journal any thoughts, feelings, or observations made regarding the site.
10. Turn in all used film/videotape and camera/video recorder in at day’s end.

COLLECTION PROCEDURES

Collecting an Isolated Find

Team members collect isolates only when they are found in areas scheduled for surface modification or if they are in an area considered to be susceptible to unauthorized collection. Sufficient documentation, including photographs of the area surrounding the find, should be made at the time of the discovery to permit analysis at a later date. The Crew Chief shall make the determination if collection shall be done.

The following collection procedures shall be followed:

1. Ask the Crew Chief for the isolate number (Example: HI-93-003).
2. Determine the location (using a GPS if available) and plot it on the field map.
3. Complete all information contained on the Archaeological Isolate Form, date and sign the form.
4. If the isolate is temporally diagnostic, photograph and draw to scale. As photographs are taken, the date, camera number, frame number and all pertinent information is entered on the Photo Log Sheet.
5. Identify the isolate with flagging tape or package in plastic bag with clearly marked isolate number,
6. Date, location found, description of artifact, name of recorder.
7. The clearly labeled artifact should be turned in at the end of the field day, along with the field form and notes created that day.

Collecting a Site

Each find of one or more features (nonportable, nondiscrete artifacts), or of three or more artifacts within 20 meters of each other, can be a site. Sites shall be recorded in the official archaeological/historic site files of our state. As with isolates, all artifacts shall be collected if they are considered to be susceptible to unauthorized collection.

1. Note each artifact's location on the site map making accurate spatial measurements.
2. After the site information has been completely recorded a grid shall be laid out sectioning the site. An in-depth record is kept as to the exact location of each artifact within each quadrant.
3. Photograph all features. Photograph artifacts with any unusual or diagnostic characteristics that shall aid in analysis of site age or function.
4. Label a plastic bag for each artifact with:
   - Site Number (temporary #)
   - Project #
   - Date
   - Location found
   - Type of Artifact
5. Name of Collector
6. If there is more than one artifact of the same kind at the same location (example: flakes/shell) count and put that number on the bag.
7. In the case of large artifacts (bottle/can) label with flagging tape securely tied around it. The same information as listed on plastic bags should be written on the tape.
8. All artifacts and supporting paper work should be turned in at the lab at the end of the workday.

Site Testing

Sites may be tested by augering, shoveling, or excavation of test pits. Augering or shovel testing may be done during a survey if directed by the Crew Chief.

Auger Testing

If augering is required these procedures shall be followed:

1. Augering holes shall be placed a maximum of 25 m apart, excavating up to 2 m deep using a 10-cm-dia, bucket auger.
2. Each auger hole shall be assigned a number and that number shall be entered on the Auger Summary Form (see Attachment F) along with all information required on the form.
   A site map shall be created locating each auger test hole.
3. Screen the excavated soil through ¼-in. (maximum) wire cloth and save all shells, bones, and stone artifacts. Also, save historic artifacts that might be present.
4. Count and weigh all fire-modified rocks. Discard only after a sample has been saved as required by the Crew Chief.
5. Bag in plastic bags clearly labeled with:

- Site number
- Date
- Location
- Identification of Artifact
- Number of Artifacts in Bag
- Team Members
- Recorder

6. Auger Summary Form must be completed on each test unit.
7. Completed form and all artifacts shall be turned into the Lab at the end of the field day.

Shovel Testing

If shovel testing is required these procedures shall be followed:

1. Test holes shall be placed a maximum of 25 m apart, excavating 1 m deep, or until sterile sediments are encountered. Test holes shall be approximately 30cm in diameter.
2. Each test hole shall be assigned a number and that number shall be entered on a shovel test form along with all information required on the form.
3. A site map shall be created locating each shovel test hole.
4. Screen the excavated soil through ¼-in. (maximum) wire cloth and save all shells, bones, and stone artifacts. Also, save historic artifacts that might be present.
5. Count and weigh all fire-modified rocks. Discard only after a sample has been saved as required by the Crew Chief.
6. Bag in plastic bags clearly labeled with:

- Site number
- Date
- Test hole number

- Identification of Artifact
- Number of Artifacts in Bag
- Team Members
- Recorder

7. Completed form and all artifacts shall be turned in at the end of the field day.

Test Excavation

If surface inspection shows that a site may include buried deposits, test excavations are used to collect data for evaluation as directed by the crew chief. All excavations shall follow established OSHA guidelines.

Test excavations shall be conducted following these procedures:

1. Establish a datum point and site grid at a minimum interval of 50 meters.
2. Locate site to be excavated on USGS topographic map.
3. Determine the perimeter of the site by using auger or probe testing, or if feasible, geophysical techniques (e.g., proton magnetometry, ground-penetrating radar). Backhoes or other trenching equipment may be appropriate if site is scheduled for destruction.
4. Excavation shall consist of 1x 1-m square units, dug by natural geologic and cultural units, or in 10-cm arbitrary levels. Other sizes may be used as determined by the Team Leader.
5. All excavated soil matrixes shall be screened through 6-millimeter (1/8 inch) or finer mesh.
6. Save all metal, glass, modified wood, plastic, bone, and chipped or ground stone.
7. Shell hinges must be saved or a sample of no less than 25% if their density exceeds $2000/0.1m^3$.
8. Complete a Unit/Feature Level Record (see Attachment G) for each vertical level per 1 x 1-meter horizontal unit.
9. All features must be drawn and photographed.
10. A profile of at least one wall of each test pit must be completed.
11. All materials found must be bagged and labeled with the following information:

- Date
- Site Number
- Project Number
- Provenience: Unit, Quadrant in Unit, Level
- Content of Bag
- Name of Recorder
- Bag____of_

12. Artifacts and supporting paper work must be turned into the lab at the end of the field day.

Hanford Cultural and Historic Resources Program
Monitoring Site Conditions

Purpose/Scope

The purpose of this Operating Procedure is to provide Hanford Cultural and Historic Resources Program (HCHRP) staff with basic guidelines for completing site condition monitoring activities. This procedure is meant to be flexible enough to allow for professional judgment and experience in all steps - except for those activities involving data collection.

Applicability

This procedure applies to all quantitative monitoring activities undertaken by archaeologists or cultural resource specialists. This procedure applies to all pre-work activities and all field activities associated with quantitative monitoring. Pre-work activities are likely to be conducted in office buildings and field activities will be conducted throughout the Hanford Site - wherever selected archaeological sites are located.

This procedure does not apply to known Native American cemeteries or burials.

Definitions

Permanent datum means a rebar/cyberball datum placed in the ground.

Semi-permanent datum means a datum that is established by UTM point e.g., Global Positioning System (GPS).

Qualified Monitor means those individuals who meet the minimum education and experience as specified in the *Secretary of Interior's Standards and Guidelines* for professional qualifications.

Site Condition Monitoring means monitoring that includes the consistent collection of data using standardized, comprehensive techniques during each consecutive monitoring visit.

Prerequisites

Attendance at pre-project meeting(s) is mandatory; each person must read and sign the HCHRP Health and Safety Plan; the Reporting ARPA Violations procedure shall be taken in the field at all times.

Site Condition Monitoring

After selecting Archaeological sites to be monitored, Tribes (list provided by DOE-RL Cultural and Historic Program Manager) must be notified of the selection process and monitoring schedule.

Selection of Sites for Monitoring

- Archaeological sites that are eligible for listing or are listed in the National Register of Historic Places (National Register) will be considered for inclusion in the quantitative monitoring program.

- Archaeological sites that are known to be losing archaeological features or deposits will be high priority candidates for inclusion in the quantitative monitoring program.

- Archaeological sites that have a high potential for increased exposure and visibility due to fluctuating river levels will be high priority candidates for inclusion in the quantitative monitoring program.

- Sites representing specific tribal concerns shall be monitored at the level specified by individual tribes or will be monitored by the tribe itself as part of a Tribal Monitoring Program.

- Archaeological sites located in areas of potential erosion shall be monitored to prepare for site stabilization when loss is anticipated - before loss is observed.

- Known Native American cemeteries and burials shall not be included in the quantitative monitoring program unless concurrence is received from the Wanapum and all other Tribal points of contact (POCs) have been consulted.

Literature Review

HCHRP staff shall prepare a folder containing all known, available information about archaeological sites to be monitored. Such information may include, but not be limited to historic maps, photographs, worksheets, and graphs.

Note: HCHRP staff should carry this information into the field for use during the monitoring activity.

Scheduling

Qualified staff will schedule quantitative monitoring trips as necessary with a boat driver, additional staff, and Native American Points of Contact.

Methodology

Note: If Archaeological sites have been looted or vandalized follow *Reporting Archaeological Resource Protection Act (ARPA) Violations* procedure.

- All archaeological sites in the quantitative monitoring program will be mapped or otherwise recorded from a permanent datum. Baseline conditions may be established using high resolution topographic mapping with a total station. Subsequent maps shall be created of the archaeological site according to selected mapping intervals not to exceed a 5 year interval for comparative purposes.

  Note: Priorities for total station mapping shall be established for all archaeological sites in the quantitative monitoring program. All archaeological sites selected for data

recovery activities (driven by loss due to erosion or other adverse impacts) will be high priority for total station mapping whether or not they are included in the quantitative monitoring program.

- Archaeological site monitoring forms (see Attachment A) shall be completed to establish a historic record of qualitative and quantitative change at site included in the monitoring program. Site locations, features or artifacts shall be recorded using a GPS.

  Note: All HCHRP staff shall complete all fields on monitoring forms to ensure quantitative consistency in data collection through time.

- Photographs (minimally 3 x 5 inch black and white photographs) shall be taken to create an objective basis for documenting change at the site. A semi-permanent datum (plotted on the site map) shall be used for photograph positions during each monitoring visit. Photograph orientations are to be recorded on the monitoring form.

  Note: At a minimum, all HCHRP staff shall take black and white photographs at each photo point indicated on the site map. Other technologies may also be used as necessary to document the visual record of each site.

- Other monitoring methodologies such as video cameras may be used as appropriate or as they are available.

Monitoring Logistics

- Monitoring trips are best suited to the spring (less vegetation and longer daylight hours) and the fall (lower river levels, good natural lighting, and potentially less vegetation coverage).

- Field crews shall be led by a qualified HCHRP archaeologist. Tribal monitoring crews will be selected by the tribe(s) conducting the monitoring trip.

Trip Reports

- Trip reports shall be prepared following each monitoring trip. Each report shall summarize the archaeological sites visited, names of trip participants, changes that may have been encountered at each archaeological site monitored, and any unexpected actions that were taken during the monitoring trip.

- A copy of the trip report shall be placed in monitoring files.

- A brief summary shall be emailed to the HCHRP Program.

Monitoring Task Closure

- Compile all field data on the appropriate forms.

- Develop all exposed film and label photographs, video film, or other visual documentation taken at each archaeological site.

Monitoring Reports

Monitoring Reports shall be completed annually.

Exhibits/Attachments

HCRL Site Monitoring Form.

Hanford Cultural and Historic Resources Program
Establishing Site & Isolate Numbers Procedures

Purpose/Scope

This procedure provides instructions on how archaeological site and isolate numbers are assigned.

Applicability

This procedure is to be applied by all Hanford Cultural and Historic Resources Program (HCHRP) staff for archaeological sites and isolates discovered on the Hanford Site.

Work Instructions

The Crew Chief shall obtain the next site and isolate number from the master log books (example log sheet see Attachment A and B), which is stored in the archive room. This number is recorded in the Crew Chief's field notebook and used in the field to assign site numbers to sites encountered during fieldwork.

After returning from the field the Crew Chief shall enter in the master site log book the sites and isolates that were recorded in the field.

The following is a description of the numbering system both temporary and permanent. Site Numbers are written as follows: **HT-93-015**

HT Indicates that the site number is a temporary number (H stands for Hanford and T stands for Temporary).

93 Indicates the site was discovered and recorded in the year 1993.

15 Indicates the site was the 15th site discovered and recorded on the Hanford Site in the year 1993.

After a survey report has been written and filed with the State the State may issue a permanent number for a historic site. This number will become the permanent site number and will be placed in the log book, site form and database. The permanent number for a historic site will look similar to this: **3-25**.

3 Indicates that the site is located in Benton County.

25 Indicates the site was the 25th historic site located and recorded in Benton County.

When the Washington State Historic Preservation Office issues a permanent number for a prehistoric site it will be placed in the log book, site form and database and look similar to this: **45 BN 015**.

45 Indicates the site is in the state of Washington

BN Indicates the site is located in Benton County (FR is Franklin County, AD is Adams County).

15 Indicates the site was the 15th site recorded in Benton County.

The following is a description of the numbering system for Isolates. Numbers are written as follows: **HI-94-015**

HI Indicates that the Isolate number is a temporary number (H stands for Hanford and I stands for Isolate).

94 Indicates the Isolate was discovered and recorded in the year 1994.

16 Indicates the Isolate was the 15th Isolate discovered and recorded on the Hanford Site in the year 1994.

Forms:

Hanford Cultural and Historic Resources Program Site Log
Hanford Cultural and Historic Resources Program Isolate Log

Hanford Cultural and Historic Resources Program
Reporting Archaeological Resources Protection Act (ARPA) Violation

Purpose/Scope

The purpose of this procedure is to provide for the protection of archaeological resources in accordance with the Archaeological Resources Protection Act of 1979 on the U.S. Department of Energy's Hanford Site in Eastern Washington.

Applicability

This procedure provides staff with the steps to follow to report ARPA violations when encountered.

This procedure applies when an archaeological site is encountered that has been or is being looted. An example of when this procedure may be applied would be while out monitoring archaeological sites along the river one may encounter people digging along the bank and using screens. Or while conducting an archaeological survey one may encounter an existing site with holes scattered across an area.

This procedure is applicable to within the boundaries of the U.S. Department of Energy's Hanford Site in Eastern Washington.

This procedure is to be used by staff of the Hanford Cultural and Historic Resources Program.

Definitions

Archaeological resources – any material remains of past human life or activities that are of archaeological interest and are at least 100 years old.

Work Instructions

1. Staff are not to approach or communicate with the people that are looting the site. Immediately call by cellular phone to report the incident to one of the following people listed below. Follow up with a phone call or an e-mail message to DOE-RL Program Manager and DOE-RL Hanford Security Manager if they were not notified first.

DOE-RL Hanford Cultural & Historic Program Manager	372-0277
Emergency Services Division	372-3005
Benton County Sheriff's Department	735-6555 or 786-5605 or 376-1022
Hanford Patrol Emergency Officer	373-3800
Hanford Patrol Emergency Listing	911

USFWS – Call when ARPA violation is discovered on USFWS managed lands – contact 371-1801

2. If looting is discovered of archaeological sites immediately report this to the DOE-RL Program Manager and DOE-RL Hanford Security Manager and the Benton County Sheriff's Department even if discovered in another County.

3. Do not walk around the site. There is potential that evidence may be destroyed. There is a saying "you cannot go into a crime scene without leaving something behind as well as taking something with you".

Note: Evidence that may be left by looters can include any equipment/tools they used to dig as well as their vehicle or boat that was used as transportation to the site. Cans, wrappers and cigarettes may also be used as evidence. Fingerprints can sometimes be obtained from these. Casts of boots or shoes can be made and used to assist with prosecution of looters.

Note: If the looting is recent do not continue with 49 until law enforcement has completed their investigation.

4. Map the site location as well as GPS coordinates

5. Take photographs of the site and looting

6. Complete the ARPA Violation Reporting Form

7. Report all sites that have been looted even if the looting looks like it had occurred several months ago. This will help the Sheriff's Department build a case as well as determine the damage done by more recent looters.

8. If more information is needed the Sheriff's Department will contact PNNL.

9. Send copies of the completed report to Benton County Sheriff and DOE/RL Cultural Resource Program Manager. Put copies of the report in the site file and ARPA file.

Exhibits/Attachments

Suspected ARPA Violation Reporting Form

SUSPECTED ARPA VIOLATION REPORTING FORM

Site number:
Date of observation: Observer(s):
Form completed by: Date form completed:

Describe suspected violation (include general and specific information including location, length, width, depth, and number of excavations or other violation [e. g. vandalism]):

Describe observed impact to archaeological deposits (e. g., are collection piles evident, impact to features, etc.):

Suspected age of looting activity

Active Recent
Within the year Over one year old
Best guess:

Reasoning (e. g., vegetation growth, presence of physical evidence):

Other physical evidence present (e.g., debris, footprints, utensils):

List of photographs:
Attach location map (USGS or better)
GPS locational points

Age of damaged site 100 years or greater? yes ☐ no ☐

List notifications made to date regarding this suspected violation, including name of individual(s) contacted, organization(s), date of contact, and type of report (e. g., e-mail, telephone, fax, etc):

Comments:

Send copies of completed report to Benton County Sheriff and Hanford Site Preservation Officer. Put copy in site file and ARPA file.

Hanford Cultural and Historic Resources Program
Inadvertent Discovery of Human Remains

Purpose/Scope

Known Native American burial sites exist on the Hanford Site. As construction activities, recreational use, and natural erosion progress, soil that now protects these sites may be gradually or suddenly removed, exposing the remains and artifacts buried with them. The purpose of this procedure is to provide the necessary steps to be followed if human remains are discovered.

Applicability

This procedure applies to all Hanford Cultural and Historic Resources Program staff.

Prerequisites

None.

Definitions

Inadvertent Discover of Human Remains – A discovery of prehistoric or historic human remains that is not expected. Project staff may make the discovery or respond to a discovery made by someone else.

Program Staff – Project staff may include all staff supporting the Hanford Cultural and Historic Resources Program. These staff may include DOE staff, subcontractors, other Hanford contractors and summer support staff (students, interns, etc.).

Responsible Staff

Staff with responsibilities for implementing this procedure are:

Program Manager
Program Staff

Exhibits/Attachments

Inadvertent Discovery Report Form

Work Instructions

When an inadvertent discovery that may be related to prehistoric or historic human remains is encountered in the field, the following instructions are to be used:

1. Determine, if possible, whether the discovery is human using available texts or other information (comparative skeleton in field vehicle when available).

2. If remains are human or the determination cannot be made notify the program manager or delegate of the discovery. If the remains cannot be identified as human, the program manager shall take the necessary steps to ensure proper identification of the remains.

3. If the discovery is human, complete the following sections of Attachment A (Inadvertent Discovery Field Report) pg. 1 numbers 1-4, pg. 2 numbers 1-8, pg. 3 numbers 9-12 and 14 and pages 4-7. The completed form shall be submitted to the program manager upon return from the field.

4. The program manager is responsible for contacting Tribes once the determination has been made that human remains have been discovered. The program manager shall notify DOE-RL within 24 hours of the discovery.

Additional Guidance

When an inadvertent discovery is encountered avoid disturbance of the area. Cultural materials shall not be moved from the location of discovery. Photographs shall not be taken of the bones unless project manager requests the photographs to assist in the determination of the remains to be human or animal.

Hanford Cultural and Historic Resources Program
Health and Safety Plan

I. Purpose

This Plan covers all fieldwork conducted for the Hanford Cultural and Historic Resources Program (HCHRP). It is the express policy of Pacific Northwest National Laboratory (PNNL) that all work by its employees or subcontractors at field survey sites for this project be conducted in a safe and conscientious manner. All personnel and visitors at field survey sites shall adhere to this and other applicable Health and Safety Plans and requirements (e.g., those pertaining to specific hazardous waste sites or surface contamination areas) and follow the directions of the Project Manager or Field Team Leader. All personnel shall agree to abide by the safety issues covered by this plan and shall acknowledge by signing Attachment A on an annual basis. Visitors shall agree to abide by the safety issues covered by this plan and shall acknowledge by signing Attachment A upon each visit.

This Plan sets forth the minimum acceptable standards as required by federal or state regulations and is based on information available as of May 1999. As new information becomes known concerning the extent of possible contamination or of operations planned at the site, the requirements of the Plan may be modified by the Project Manager to accommodate that new information.

II. Background

Field surveys are conducted for the purpose of evaluating the presence of cultural resources in the vicinity of proposed projects. These surveys are necessary to comply with direction from the U.S. Department of Energy, Richland Operations Office to assess the potential cultural resource impacts of all activities with the potential for affecting the environment.

III. Site

The HCHRP surveys will be conducted on the Hanford Site for DOE and its contractors. The Hanford Site consists of 540 square miles of primarily shrub-steppe plant communities and riparian corridors along the Columbia and Yakima Rivers, as well as isolated riparian communities on the Fitzner/Eberhardt Arid Lands Ecology Reserve.

IV. Personnel

A. Responsible Parties

1. Program Manager----------A. L. Rodriguez

B. Job Descriptions

1. Program Manager
   The project manager has overall responsibility for the successful outcome of the program and make the final decisions regarding implementation of the Health and Safety Plan. Included in this responsibility are communicating to all persons on the field team any safety or operating requirements pertaining to a particular site, or any changes to the Health and Safety Plan.

2. Field Team Leaders
   Field team leaders are charged with implementing the Health and Safety Plan in the field. They are responsible for reviewing safety issues, Job Safety Analyses, Radiation Work Permits, and other safety documents that pertain to surveys in a particular area. Field team leaders are located onsite during all work and ensure that all personnel on the site work in a safe manner consistent with the requirements of the Health and Safety Plan. Reports of all safety violations or perceived health/safety concerns are made to appropriate management or Safety & Health Representative. Deviations from the Health and Safety Plan require prior approval of the Project Manager.

3. Field Team Members
   All field team members are responsible for understanding and complying with the Health and Safety Plan and all health and safety instructions given by the Field Team Leader or competent authority. Field team members will promptly report all injuries or illness to direct supervisor who shall inform the Program Manager and ensure they are properly reported.

V. Communications

Field teams will work together as a group within earshot of each other. The smallest team allowed to survey will be two. Where conditions warrant separating a large team into several pairs that will be out of earshot, cellular phones or radios will be carried by each group.

VI. Site Security

Surveys will not be performed around open excavations or unattended open boreholes. Security at hazardous waste sites or radiation zones will be the responsibility of the site owner, and field teams will follow the instruction and security documents pertaining to those sites.

VII. Site Hazards

Survey sites will be assumed to be uncontaminated with hazardous waste materials. It is the responsibility of the survey requester to provide information of the hazards on the survey site and directions for obtaining necessary site training. In general, other hazards on survey sites may include the following physical hazards:

Vehicles and machinery
Heat Stress
Hypothermia
Falls/trips
Noise
Radiological Contamination

Overall, the health risks anticipated at most survey sites are rated as low. The greatest hazards are likely from vehicles and machinery operating in industrial areas, and heat stress or hypothermia in remote areas.

VIII. Discussion of Specific Hazards

A. Physical

1. Vehicles and machinery
   Traffic of vehicles and machinery at industrial or roadway survey sites poses hazards that need to be addressed. Personnel must watch where they are walking so as not to step in front of moving equipment. Vehicles must be assumed to have the right-of-way at all times. Traffic must be kept under observation when surveying near roadways. The use of reflective vests when working near high traffic areas will be worn. The buddy system will be used.

2. Heat Stress
   Heat stress is a potential hazard during heavy exertion in the summer, especially if the workers have not had enough liquids in their diet. Potable water should be carried into the field in appropriate containers when surveying in remote areas. Alcohol, coffee, tea and caffeine-containing soft drinks should be avoided. The Field Team Leader shall determine if heat stress poses a particular risk during the project and shall have the field team members monitor their pulse rate periodically when heat stress potential is high.

   If the worker's pulse exceeds 110 beats per minute, a 15-minute break period in the shade and ingestion of water will be required.

   If the ambient temperature is above 80° F, or if strenuous work in heavy clothing is anticipated, the Field Team Leader shall take special precautions against heat stress. Workers shall force fluids prior to work (such as a good electrolyte replenishment drink) and monitor their vital signs such as pulse to lessen the likelihood of a heat related illness at the site.

3 Hypothermia
   Hypothermia, or severe decrease in body temperature, must be guarded against if work at the site takes place during temperatures below 65° F. Workers may require insulated coveralls, heavy gloves, or pack boots.

4. Slips/trips/falls
   As with all sites, caution must be exercised to prevent slips on rain slick surfaces, or oily spots. Never work on unguarded elevated platforms without fall protection. Team members must stay at least six feet back from new excavations unless those are properly marked and guarded. The buddy system will be used with cellular phones in remote areas to obtain help if someone becomes injured and unable to walk to a vehicle.

5. Noise
   Surveys conducted in the vicinity of heavy machinery may lead to excessive noise exposure. Personnel in the immediate area must use hearing protection (e.g., foam inserts) if exposure to noise levels exceeding 85 dB is anticipated for over 15 minutes.

6. Confined Spaces
   Personnel are forbidden from entering any confined space (such as an excavation) unless the space is properly tested by the relevant site safety officer or his/her designated representative

and all precautions required by that person are followed. A safety watch will always be required whenever a worker is in a confined space. Safety requirements for confined space entry must be obtained and followed.

7. Biological
   Personnel may encounter biological hazards while working on the Hanford Site. Biological hazards may include the following:
   - Spiders
   - Scorpions
   - Insects
   - Snakes
   - Sharp sticks and sharp edges
   - Poisonous plants

   The following guidelines are to be observed concerning biological hazards:
   - Be aware of your surroundings
   - Be able to recognize potential pests
   - Wear leather boots
   - Wear leather gloves (as necessary)
   - Use insect repellant (as necessary)

   Report potentially hazardous bites, stings, or exposures to your supervisor and seek appropriate medical treatment.

8. Remote Areas
   Personnel will carry appropriate survival kits. Cellular phones and/or radios will always be carried and the buddy system will be observed.

   Survival kits must contain:
   - First Aid Kit
   - Aspirin
   - Adequate Water Supplies
   - Adequate Food Supplies
   - Communications Equipment (cellular phones/two-way radio)
   - Appropriate Clothing for Climate
   - Sunscreen
   - Pocket Knife

B. Radiological

The potential for radiological contamination is considered to be minimal outside of surface contamination areas. Staff will enter surface contamination areas only with the proper training, clothing, and under the requirements specified in the Radiation Work Permit for that area. Biological or other samples taken off the Hanford Site will be surveyed by the appropriate radiation protection technologist prior to removal from the Site. The potential for exposure to ionizing radiation is considered possible in many areas of the Hanford Site. Staff will spend as little time as possible surveying in the vicinity of areas with elevated radiation dose rates.

IX. General Work Practices

Survey personnel will work in a safe manner at all times. This includes, but is not limited to, the following points:

1. All personnel shall work in teams of at least two persons (the buddy system), except in areas where moderate to high foot traffic is expected. Team members must always remain in sight of each other.

2. Each field team will carry a two-way radio or cellular phone when conducting surveys in remote areas.

3. All injuries/accidents, including exposure incidents, shall be immediately reported to the Project Manager. A report of the incident needs to be immediately forwarded to ES&H. If directed to be evaluated by a physician, the affected worker shall immediately report for examination and follow all of the doctor's recommendations.

4. All visitors must have prior approval from the Project Manager before being admitted on a survey. Visitors must read and acknowledge understanding of this Plan.

5. Prior to the start of field work and annually thereafter, each worker will be given informal training on how the project will progress. New staff and visitors will be given this training prior to going on a survey. The Project Manager will conduct this training. Topics must include the following:

   - key provisions of the plan
   - safety hazards anticipated
   - job safety analyses pertaining to the project
   - buddy system explained
   - safety equipment operation.

   All personnel will sign a statement attesting to their having read and understood the Plan. Personnel agree in writing to follow the Plan; all questions must be answered to their satisfaction prior to starting work.

6. Daily, prior to starting work, the Field Team Leader will hold a short safety meeting to go over any problems perceived, to review the site survey plan, and to direct how the project will proceed that day with regard to health and safety matters. Where potentially significant safety issues may be expected (e.g., surveys in surface contamination areas), the safety meeting will detail the provisions specific to the site hazards, and a training document will be signed (see Attachment B) by all field staff acknowledging the training.

XI. Personal Protective Equipment

Field surveys will normally not involve contaminated material, and the following personal protective equipment (PPE) will be worn as noted. PPE for surveys in contaminated or hazardous waste sites will conform to the requirements of the site.

- Work clothing
- Hard hat – when surveys are being conducted near construction, in abandoned buildings, or industrial areas
- Goggles/safety glasses (as needed)
- Ear protection (as needed)
- Standard work shoes (steel-toed boots in construction areas, industrial areas, or abandoned buildings)

XII. Emergency Procedures

All field staff shall be trained in the use of two-way radio or cellular telephone.

For fire, police, or ambulance, call **811**, 375-2400, or 376-3301 and give requested information. For medical emergencies, call **811** or one of these numbers:

HEHF First Aid Station	376-6981
Kadlec Hospital	946-4611(emergency room nurse)

The Program Manager must log a complete report of any event requiring use of outside agencies for any emergency action. Also, log any event that requires implementation of the Emergency Procedures section of the Plan.

If a worker must go for medical attention, another worker must accompany the patient. If in any doubt as to the need for a doctor's opinion, it is the policy that medical attention **must** be received. Notify the Program Manager as to the outcome of the medical evaluation as soon as possible. For minor cuts and bruises, a first aid kit will be available in the field vehicle. Ensuring the availability of safety equipment is the responsibility of the Field Team Leader.

Weather

Strong winds or heavy water runoff is likely to move soil and may require the activities at the site to be curtailed.

Hypothermia may be a problem if the work takes place during cool weather. The following guide should be followed during a cold injury:

1. Bring victim into a warm area.
2. Remove all wet/cold garments that remain.
3. Dry victim and cover with blanket.

Work in warm weather may lead to heat related illness [see Section VIII (2)]. Heat stroke victims are recognized by their dry skin (lesser degrees of heat-related illness commonly cause very damp skin). They will be disoriented and probably will not be able to respond to commands or to help themselves.

Heat stroke is life threatening. Prompt treatment of heat stroke must be given at the site for anyone stricken by this illness. Treatment includes cooling the victim with whatever is at hand (e.g., ice water bath). Do not wait for medical services to arrive to begin treatment.

Attachment A

ACKNOWLEDGMENTS

I HAVE READ THE HEALTH AND SAFETY PLAN FOR THE HANFORD CULTURAL RESOURCES PROJECT AND HAVE HAD ALL QUESTIONS PERTAINING TO IT ANSWERED TO MY SATISFACTION. I AGREE TO ABIDE BY THE SAFETY ISSUES COVERED BY THE PLAN AND BY ANY SAFETY DIRECTIVES ISSUED BY THE PROJECT MANAGER WHILE I AM IN THE FIELD.

Name	**Signature**
	Org.
Code/Agency	**Date**

Attachment B

Field Safety Meeting/Training Summary

Date: Time Began: Time Ended: Location:

Conducted by:

Signatures of those present:

REFERENCES

10 CFR 600. U.S. Department of Energy. "Financial Assistance Rules." *Code of Federal Regulations.*

36 CFR 800. U.S. Department of Interior. "Protection of Historic and Cultural Properties." *Code of Federal Regulations*.

40 CFR 761. U.S. Environmental Protection Agency. "Polychlorinated Biphenyls (PCBS) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." *Code of Federal Regulations*.

48 CFR 9. Federal Acquisition Regulations Systems. "Contractor Qualifications." *Code of Federal Regulations*.

American Indian Religious Freedom Act (AIRFA). 1978. Public Law 95-341, as amended, 42 USC 1996, 1996 note.