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Department of Energy

memorandum

Dave

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DATE: JUNE 25, 1990

REPLY TO ATTN OF: EH-231

SUBJECT: Expedited Procedures for Remedial Actions at Small Sites

TO: J. Fiore, EM-423

Introduction and Discussion

Current protocol and procedures for implementing the remedial action and associated environmental review process under the Formerly Utilized Sites Program (FUSRAP) were developed with primary consideration given to the larger and higher priority sites. These procedures are designed to ensure that all appropriate engineering and environmental options are evaluated. They also ensure the mitigation of environmental and health impacts, cleanup criteria, disposal options, and so forth, are optimized. These protocol carefully considered and adopted the requirements of the National Environmental Policy Act (NEPA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the CERCLA National Contingency Plan (NCP).

While this approach may represent an effective process for larger and higher priority sites, it can be quite wasteful of Federal resources at smaller FUSRAP sites, particularly those most recently designated and those sites to be designated in the future.

Both NEPA and CERCLA offer the Department considerable flexibility in dealing with smaller sites. The purpose of this proposed supplement to the current protocol is to describe in detail a procedure for dealing with such small sites in a cost effective and environmentally acceptable manner that is in compliance with NEPA and CERCLA. This version of the procedures has been revised to reflect comments received on the January 19, 1990 version from your staff and Oak Ridge Operations (March 30, 1990, Memo from Seay to Wallo) and received in discussions with EM/NEPA (EH-25) personnel.

One comment in the Seay to Wallo memorandum was not adopted in these recommendations. Oak Ridge felt the roles of the respective offices were not sufficiently different to warrant having both headquarters and the project office sign the certification for a site remediated under the expedited process. I have no problem with the project office taking this responsibility, if they are willing to do so and it is beneficial to streamlining the overall protocol. However, I believe that under most circumstances, headquarters and its designation contractors will be making the judgments that result in approving the release of the largest

portions of most of the property of concern and it does not seem appropriate to require the field to then accept the responsibility for certifying it. I, therefore, did not adopt this recommendation in this proposed procedure. However, as noted, the following only represent recommendations. EM-40 and the FUSRAP project office should make the final decisions regarding how and if they are included in the DOE FUSRAP protocol.

The adoption of this process is likely to require major modification to existing FUSRAP protocols (1986/1987 versions). If these documents are revised, there are several other sections that might warrant consideration for revision as well. The discussion on the use of the FUSRAP guidelines should be expanded. It should note that criteria should be selected such that current use and likely future use of the property will result in doses to users of the site that are a small fraction of the 100 mrem/year limit (on the order of a few mrem/year). The worst plausible scenario (plausible but not likely) may be permitted to allow doses that are somewhat closer to the limit. Guidance provided since the issuance of the protocol should be considered for inclusion in the revised protocol. An example is the guidance provided regarding the level of survey that is required for release of property when there is varied degrees of historical information available concerning the past use of the property or equipment. The protocol should also be reviewed to determine if it contains an acceptable discussion of the CERCLA and NEPA reviews and documents prepared for non-expedited sites. The FUSRAP prioritization procedure should also be reviewed to ensure that it is still acceptable in light of the new Order DOE 5400.5 and the recommendations of such reports as BEIR V and UNSCEAR 88. Similarly, the QA and sample chain of custody requirements should be reviewed to determine if they are adequate.

The remainder of this memorandum contains the recommendations for the establishment of an expedited remedial action process. These recommendations complete the commitment I made earlier this year to revise the previous version. Any further action regarding implementation (and modification, if needed) of the suggested approach is up to EM-40 and the FUSRAP project office. However, if I can be of assistance in the review of revised protocols or plans for implementation of the process please call me at FTS 896-4996.

1.0 Purpose:

Define a supplemental procedure for the FUSRAP protocol that will allow more expeditious and effective remediation of small sites in a manner that is in compliance with current regulations.

2.0 Summary and Applicability:

A detailed description of the "Expedited Remediation Process" and its associated elements is provided in the sections to follow; however, conceptually, the process can be divided into four major activities. They are 1) identification and characterization, 2) evaluation and planning, 3) remediation, and 4) certification. The process is shown schematically in Figure 1. The conditions for using and differences between this procedure and the normal FUSRAP protocol include:

- o The designation survey may be more extensive.
- o The environmental and engineering evaluation process and associated documentation are much less extensive.
- o In most cases, the environmental evaluation is completed or at least initiated at headquarters level with more involvement by the designation contractor.
- o Any remedial action conducted under this procedure should only require a few weeks of field operation and it must be clear that the quantity of waste generated is sufficiently small that it may be sent to an existing DOE disposal site.
- o This procedure is limited to sites having relatively small levels of contamination, particularly those with only indoor contamination or where outdoor contamination is so limited that ALARA actions in the field are likely to result in cleanups that represent background levels of radionuclides in the soil.
- o There is virtually no potential for any measurable ground water contamination.
- o The survey data must have been reasonably current or verified and the survey contractor (who will also serve as the verification contractor during remedial action) must have personnel assigned to the project that are familiar with the site. Preferably those involved in the original designation survey or more recent surveys conducted to verify past data.
- o The data collection and analyses must be consistent with CERCLA requirements.

3.0 Identification and Characterization:

The first activity is the identification of the contaminated site. This process is generally consistent with the current protocol and basically involves the radiological survey of the facility to identify the extent

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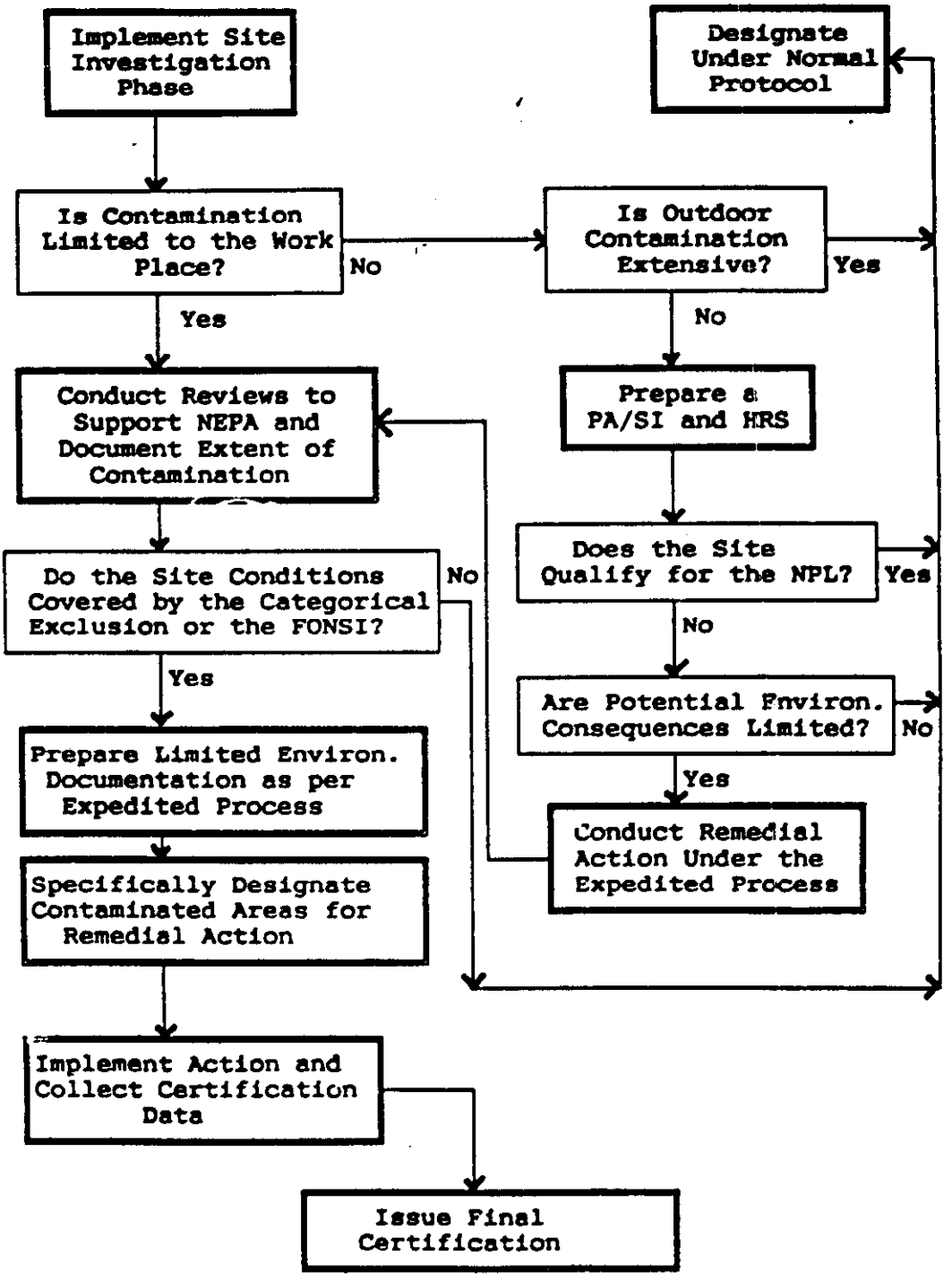

Figure 1. Basic Follow Diagram of Expedited Remedial Action

of contamination. The only difference is the level of detail required for the survey.

Under the current protocol this effort is typically terminated as soon as there are sufficient data to demonstrate the site contains residual radioactivity in excess of guidelines. The complete characterization of the site is then completed after designation of the site for remedial action. When it is anticipated that a site may be remediated under the expedited procedures it is necessary that the designation survey be conducted in a manner that ensures that there is reasonable certainty that the extent of the contamination has been defined.

If the results indicate the extent of the contamination is very limited (i.e., contained within the work place (the building), and/or outdoor contamination is very minor) then this process may be used to conduct the remedial action. In some cases, survey results may be supported by historical data.

It is the responsibility of the DOE designation manager and the designation contractor to identify sites that have potential for utilizing this expedited process and ensuring adequate data are collected to complete the evaluation. If this is determined in the field or before the survey, the survey may be extended by the survey team leader or the onsite DOE representative to collect the required data. If it is determined after the completion of the survey during the review process, the designation manager may send the survey contractor back to the site to collect any necessary data. If the latter occurs, the remedial action contractor should be directed to send an engineering representative onsite during the supplemental survey.

The DOE designation manager should notify and involve the project office and remedial action contractor in this effort as soon as it is suspected that the site may be appropriate for the expedited procedure. Under certain conditions, where resources are available, this will allow the remedial action contractor or the project office the option to have personnel on site for at least the final part of the designation survey. This should only be done, however, when use of the expedited process is reasonably certain.

3.1 Special Consideration for Designated Sites

Under certain circumstances, the DOE remedial action managers at the project office may identify sites that warrant consideration for use of the expedited process. These might include sites that were designated

prior to the inclusions of this procedure in the FUSRAP protocol. In some cases, sites that were believed to contain extensive contamination as a result of limited designation survey data may be determined to be eligible for the expedited process on the basis of characterization survey data if it clearly demonstrates that the conditions at the site comply with the requirements set forth for use of the expedited process.

In both these instances, the project office should submit a request to DOE headquarters to include the site in the expedited process. The designation manager and knowledgeable designation survey contractor representatives should review the request and justification and meet with the project office remedial action manager and the characterization survey contractor to ensure that the subject site meets the conditions required under NEPA or CERCLA for the expedited process to be used. In these cases, the evaluation and planning process will proceed as noted in section 4.0; however, the project office and characterization/ remedial action contractor will have the lead for preparing the necessary documentation.

4.0 Evaluation and Planning:

If after review of all the data, it is determined that the contamination is limited to the indoor portions of the site only, the expedited process may be used. The DOE headquarters technical support contractor should be tasked to prepare the environmental documentation.

Normal NEPA procedures would only require a memorandum to file for projects of such limited scope, however, DOE policy (SEN 15) no longer permits the use of this option for complying with NEPA. The DOE NEPA office (EH-25) has prepared a request for a categorical exclusion that should cover these limited scope remedial actions. EM-40 should coordinate directly with EH-25 to determine the status and applicability of the specific categorical exclusion. If the categorical exclusion is approved, the protocol should be revised to reflect the level of environmental documentation that is required to demonstrate the site specific action is subject to the exclusion.

If the categorical exclusion approach is not acceptable, EM-40 should immediately begin the preparation of a generic Environmental Assessment (EA) and if appropriate, issue a Finding of No Significant Impact (FONSI) to cover the NEPA requirements for these projects. It may be found that this approach will produce the most timely results. As with the categorical exclusion, some minimal environmental documentation should still be prepared to demonstrate that the conditions of the generic EA and associated FONSI are met by the proposed remedial action. Because the primary goal of the proposed process discuss below is to expedite remedial actions at sites where such actions clearly cause

insignificant environmental impact (small sites). If the environmental analysis indicates that a FONSI cannot be issued, then the scope of the sites and actions covered under the expedited process must be reduced, otherwise the primary goal of insignificant impact is not met.

For those sites where the contamination is limited to the work place, CERCLA documentation should not be necessary; however, it may be desirable to use the format and the data requirements in the CERCLA PA/SI for the data requirements under this process. In addition to the normal FUSRAP priority ranking done on each site, it is also suggested that a CERCLA type Hazard Ranking System (HRS) report be done, even though it is not directly applicable. This will result in consistent documentation with similar actions (discuss below) where outdoor contamination is involved. The field office responsible for remedial action and their contractor should be involved in this process as much as possible to ensure an adequate evaluation and to aid in the remedial action process.

If outdoor contamination exists or there is significant potential for contaminating the environment, the site cannot be directly included in the expedited process. In such cases, an evaluation must be conducted to verify that the contamination poses no significant threat to the environment. Technically, the site must be considered under CERCLA. However, if the Department can ensure that there is no significant environmental impact, the expedited process can still be used. At a minimum a PA/SI and HRS scoring must be done. The process must verify that the site will not qualify for the national priorities list and that the action is not a significant environmental action under NEPA. If the contamination is so limited that cleanup of the outside contamination under the guidelines plus ALARA is likely to result in the soil concentrations after remedial action being equal to background and the volume of waste is such that it can clearly be shipped to an existing DOE disposal site, the expedited process may be utilized. However, if these criteria cannot be met and/or it is determined that the remedial action may be extensive (months rather than weeks) the process should be avoided and the normal protocol used.

It is important that this process be applied over a relatively short period in time (a few years between designation survey and remediation). Otherwise, the Department may be at risk. The process depends significantly on the availability of survey personnel who conducted the initial designation surveys to assist the remedial action contractor in identifying and characterizing the contamination. Use of older survey data may result in poor communication of this data if the principals involved in the survey are not available at the time of the remedial action. This could result in contamination being found during the remedial action or determined to be unclearly defined and, hence, halt the process and force the use of the normal procedures. Such actions would waste rather than conserve resources.

Once it is determined that the expedited process will be used, the remedial action contractor and the designation contractor should visit the site together to clarify the planned remediation. Once the remedial action plans are final, the remedial action can proceed.

The designation contractor is responsible for identifying the contaminated areas for the remedial action contractor so that he can make appropriate plans. The designation contractor should supply drawings that clearly identify the extent and location of the contamination to be remediated and/or where possible, should clearly mark the contaminated areas for the remedial action contractor. It is critical to the success of these projects that the two contractors are in close and frequent communication. It should be the DOE designation manager's and the project office site manager's responsibilities to verify that there is an adequate exchange of information.

5.0 Remedial Action:

The remedial action team under the expedited process is different in that it is made up of the remedial action contractor and his health physics personnel (for certifying the remedial action) and the verification contractor (the designation contractor personnel who conducted the survey). Unlike the normal protocol, the remedial action contractor is only responsible for remediating those areas identified by the designation survey as requiring remedial action and he is responsible for certifying the conditions of these areas. The designation contractor is responsible for supplying sufficient information to allow certification of the rest of the site. He also provides verification services for the remediated areas.

Because the scope of these projects is limited, it is anticipated that disputes between the remedial action certification team and the designation/verification contractor will be rare. In most cases, considering ALARA requirements and the small size of the actions involved, the most conservative results should be used. However, if disputes do arise, they must be resolved by DOE personnel. This should be done by either the DOE headquarters designation manager or the DOE project office site remedial action manager. Because the time frame of the remedial action is relatively short, one or the other should be on call at all times either by phone or if necessary on-site. The protocol should be revised to allow either of the DOE managers to take this responsibility; however, before the remedial action team goes into the field, the DOE staff responsible for dispute resolution must be identified. The name and procedure for contacting the specific DOE manager responsible for dispute resolution for a specific action should be listed in the remedial action plan.

Depending on the site specific conditions, and the magnitude of the former operations, the DOE designation manager or the DOE remedial

action manager may direct the remedial action contractor or the designation contractor to make additional measurements or take additional samples to further verify the condition of the unremediated areas. In most cases, the need for such measurements should be anticipated from the preremedial action survey data. In general, these measurements should be small scale and confirmatory in nature. There should not be any significant characterization survey effort necessary during the remedial action. Such a requirement is indicative of insufficient preremedial action characterization and would indicate that there was not sufficient information available to determine if the site should be remediated under the expedited process.

If during the survey significant new contamination is identified or the contamination is significantly more extensive than anticipated, DOE must be notified to determine if 1) the action should continue and the new material removed, 2) the action should continue as planned and the new areas will be evaluated later, or 3) the action halted and the site reevaluated. Sufficient data should be collected to support these determinations. These decisions should also be the responsibility of the DOE manager on call for the project and identified in the remedial action plan.

6.0 Certification:

Preparation of Certification Documentation as in the normal protocol is the primary responsibility of the field office. However, the survey contractor and headquarters technical support contractor must provide the field office and the remedial action contractor with sufficient information to certify the radiological condition of the site as the remedial action contractor was only responsible for the remediated portions of the site. Similarly, DOE headquarters and the field office should jointly sign the certification statement because of the combined responsibility. The remainder of the process is handled as it is in the normal protocol.

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Environmental Guidance