3.0 WRITING THE PROPOSED PLAN

This chapter presents a recommended structure for the Proposed Plan and is accompanied by an outline and checklist, which can be found at the end of the chapter. Appendix A contains a sample Proposed Plan which is meant to illustrate the appropriate level of detail for the recommended format presented in this chapter.

3.1 PURPOSE OF THE PROPOSED PLAN

The Proposed Plan is a document used to facilitate public involvement in the remedy selection process. The document presents the lead agency's preliminary recommendation concerning how best to address contamination at the site, presents alternatives that were evaluated, and explains the reasons the lead agency recommends the Preferred Alternative.

The lead agency solicits public comment on the Proposed Plan including all of the alternatives considered in the detailed analysis phase of the RI/FS, because the lead and support agencies may select a remedy other than the Preferred Alternative based on public comment. The final decision regarding the selected remedy is documented in the ROD after the lead agency has considered all comments from both the support agency and the public.

3.2 REGULATORY REQUIREMENTS FOR THE CONTENT OF THE PROPOSED PLAN

In the first step of the remedy selection process, the NCP directs the lead agency to identify a Preferred Alternative and present that alternative to the public in a Proposed Plan. The Proposed Plan must briefly describe the remedial alternatives analyzed, propose a preferred remedial action alternative, and summarize the information relied upon to select the Preferred Alternative (NCP §300.430(f)(2)). This section of the NCP also states that, at a minimum, the Proposed Plan must:

- Provide a brief summary description of the remedial alternatives evaluated in the detailed analysis;
- Identify and provide a discussion of the rationale that supports the Preferred Alternative;
- Provide a summary of any formal comments received from the support agency; and
- Provide a summary explanation of any proposed ARAR waiver.

In addition, the NCP requires that EPA must respond to State comments on waivers from, or disagreements about, State ARARs, as well as the Preferred Alternative, when making the Proposed Plan available for public comment (NCP §300.515(d)(4)).

3.3 SECTION-BY-SECTION DESCRIPTION OF THE PROPOSED PLAN

Highlight 3-1 shows the major sections of the Proposed Plan. Each section is described in a more complete manner below.

3.3.1 Introduction

The introduction should state that the Proposed Plan is a document that the lead agency is required to issue to fulfill public participation requirements under CERCLA and the NCP. The primary purpose of the introduction is to inform and solicit the views of citizens on the Preferred Alternative.

This section should include the site name and location and identify the lead and support agencies for the remedial action. It should also state that the Proposed Plan is a document that the lead agency is required to issue to fulfill the requirements of CERCLA §117(a) and NCP §300.430(f)(2).

The public should be informed of the function of the Proposed Plan in the remedy selection process; specifically, its purposes are the following:

- Provide basic background information.
- Identify the Preferred Alternative for remedial action at a site or operable unit and explain the reasons for the preference.

- Describe the other remedial options considered.
- Solicit public review of and comment on all alternatives described.
- Provide information on how the public can be involved in the remedy selection process.

Other items that should be covered in the introduction include the following:

Highlight 3-1: Major Sections of the Proposed Plan

A. **Introduction** - Identifies site and describes the public participation process

B. **Site Background** - Provides facts about the site which provide the context for the subsequent sections of the Proposed Plan

C. **Site Characteristics** - Describes nature and extent of site contamination.

D. **Scope and Role** - Describes how the operable unit or response action fits into the overall site strategy

E. **Summary of Site Risks** - Summarizes the results of the baseline risk assessment, and the land use and ground-water use assumptions used in the analysis

F. **Remedial Action Objectives** - Describes what the proposed site cleanup is expected to accomplish

G. **Summary of Alternatives** - Describes the options for attaining the identified remedial action objectives

H. **Evaluation of Alternatives** - Explains the rationale for selecting the Preferred Alternative

I. **Preferred Alternative** - Describes the Preferred Alternative, summarizes support agency comments, and affirms that it is expected to fulfill statutory and regulatory requirements

J. **Community Participation** - Provides information on how the public can provide input to the remedy selection process

- Relationship of RI/FS to the Proposed Plan. A clear statement should be made that the Proposed Plan highlights key information from the RI/FS Report. The Plan should refer the reader to the RI/FS Report and Administrative Record file for more information regarding the remedial action.[1]
- Importance to the remedy selection process of public input on *all* alternatives and on the rationale for the Preferred Alternative. New information or arguments the lead agency learns during the public comment period could result in the selection of a final remedial action that differs from the Preferred Alternative.

3.3.2 Site Background

This section provides the foundation for the subsequent sections of the Proposed Plan. Answers to the following questions should help provide a complete background description:

- *What media are contaminated at the site?* Describe the media contaminated (*e.g.*, soil, air, ground or surface water).
- *What caused the current contamination at the site?* Provide a brief history of waste generation or disposal that led to current contamination problems.
- *Who has investigated site contamination, and with what results?* Describe history of Federal, State, and local site investigations.
- *What has been done to remediate the contamination?* Describe any previous response actions at the site (*e.g.*, removal, voluntary cleanup).
- *Are the parties responsible for site contamination involved in the cleanup?* Detail enforcement activities, such as the results of PRP searches or notices sent to PRPs, and whether they have conducted any of the studies upon which the Proposed Plan is based.

[1] Subpart I of the revised National Contingency Plan (40 CFR 300.800, *et seq.*) and the *Final Guidance on Administrative Records for Selection of CERCLA Response Actions* (OSWER 9833.3A-1, December 1990) provide detailed information on developing, maintaining, and providing access to the Administrative Record file for the selection of the CERCLA response action.

- *What previous efforts have been made by the lead agency to involve the public in matters related to site cleanup?* Describe major public participation activities, prior to the issuance of the Proposed Plan (*e.g.*, special community outreach related to environmental justice concerns, or identification of reasonably anticipated future land and groundwater uses).

3.3.3 Site Characteristics

- *What are the physical characteristics of the site?* Provide a brief description of site characteristics to help the public understand why the alternatives proposed are appropriate.

- *What roads, buildings, and land uses are present on the site?* Provide a site map containing this information.

- *What geographical or topographical factors had a major impact on remedy selection?* Examples include: current or potential drinking water sources affected or threatened by site contamination, wetlands on the site, or areas of major historical importance.

- *How much and what type of contamination is present?* Describe the nature and extent of contamination.

- *What are the source materials on the site that constitute principal threats?* Identify the location, volume and nature of mobile/high-toxicity/high-concentration source material (see Section 6.3.11)

3.3.4 Scope and Role of Operable Unit or Response Action

This section of the Proposed Plan should summarize the lead agency's overall strategy for remediating the site and describe how the action being considered in the Proposed Plan fits into that overall strategy.

If the response is being carried out in operable units, the purpose of each operable unit and their planned sequence should be described. Any prior or planned removal actions and interim or early remedial actions should also be discussed. Finally, how the operable unit or response action addresses source materials constituting principal threats should be identified as well. An example of this discussion follows:

> *"This is the second of three planned operable units for the site. The first operable unit provided the community with an alternate water supply to prevent ingestion of contaminated ground water. This second operable unit addresses remediation of the source materials, which include contaminated soil and sludges from former lagoon areas. These source materials constitute principal threat wastes at the site. The third and final operable unit will address the contaminated ground water."*

3.3.5 Summary of Site Risks

The human health and ecological risks posed by the site determine whether or not a remedial action is warranted. This section of the Proposed Plan should briefly summarize information in the baseline risk assessment to describe the nature and extent of the risks posed to human health and the environment by the contamination at the site. This discussion should be broken into the following two subsections: (1) human health risks, and (2) ecological risks.

Technical terms or concepts used in the baseline risk assessment that are likely to be unfamiliar to the public should be explained or defined if used in the Proposed Plan (*e.g.*, any numeric risk representations, such as cancer risks and hazard quotients, need to be accompanied by a "plain-English" explanation). Basic explanations of these concepts are provided in the examples contained in Section 6.3.7.

Generally, the risk summary in the Proposed Plan should be a narrative description rather than a tabular presentation. Risk tables are more appropriate for the level of detail needed in a ROD than for the Proposed Plan. The length of most risk descriptions in the Proposed Plan should be limited to no more than two or three paragraphs. For sites that are complex or for sites where there is heightened public interest, more risk assessment information may be needed in the Proposed Plan. A risk assessor should be consulted if a streamlined risk summary table is presented in the Proposed Plan to ensure that it is consistent with the summary tables in the risk assessment. See Section 6.3.7 for examples of site risk summary tables, recommended for a ROD, that could be used in an expanded risk section in the Proposed Plan.

Key information from the baseline risk assessment that should be covered in the Proposed Plan includes the following:

- *Major chemical(s) of concern (COCs)* in each medium. For an explanation of the term COC, see Chapter 6, footnote #7.

- *Land and ground-water use assumptions* (*i.e.*, the current and reasonably anticipated future land uses and the current and potential beneficial ground-water uses, and the basis for these assumptions (*e.g.*, community input)).

- *Potentially exposed populations in current and future risk scenarios* (*e.g.*, worker currently on-site, adults or children living on-site in the future).

- *Exposure pathways affecting each population group,* assuming reasonably anticipated future land and water uses (*e.g.*, volatilization of contaminants from soils, direct ingestion of potable ground water or surface water). Information about land and water use assumptions should help the public understand why certain exposure pathways were examined.

- *Summary of the human health risk characterization*, which should include the estimated carcinogenic and non-carcinogenic risks associated with exposure pathways for chemicals of concern that are driving the need to implement the Preferred Alternative.

- *Summary of the ecological risk characterization*, including: 1) the basis of environmental risks associated with specific media; 2) how these risks were determined (*e.g.*, based on the outcome of the ecological risk assessment and aquatic field studies, the polycyclic aromatic hydrocarbons in the sediments pose unacceptable risks to aquatic receptors); and 3) the potential risks to endangered species.

The Proposed Plan should clearly link the site risks to the basis for action (*e.g.*, the need to address contaminated soil which is: (1) a threat to residents who come into contact with it, and (2) a continuing source of ground-water contamination). For an explanation of the term "basis for action," see Chapter 6, footnote #11.

The risk section of the Proposed Plan should conclude with the standard statement in Highlight 3-2 (unless a "No Action" alternative is being proposed).

3.3.6 Remedial Action Objectives

The remedial action objectives (RAOs) describe what the proposed site cleanup is expected to accomplish. A brief description of the RAOs proposed for the site should follow the "Summary of Site Risks" section. RAOs may vary for different portions of the site (*e.g.*, returning ground water to drinking water use, and reducing contaminant concentrations in soil to below X ppm so that it is safe for the reasonably anticipated future land use at the site). Preliminary remediation goals (PRGs) (*i.e.*, proposed cleanup levels), and their basis

Highlight 3-2: Standard Language Explaining Basis for Taking Action

It is the lead agency's current judgment that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

****

If the site is contaminated with pollutants or contaminants (in accordance with the definitions contained in NCP §300.5), then the following standard language should be used:

It is the lead agency's current judgment that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of pollutants or contaminants from this site which may present an imminent and substantial endangerment to public health or welfare."

****

If the response action will address both hazardous substances and pollutants or contaminants, a combination of the two examples of standard language may be necessary.

Highlight 3-3: Tips on Writing Summary of Site Risks

- Define terms and concepts used in the risk discussion that are not likely to be understood by the public.
- Present the risk discussion in a narrative format. If tables are used, consult a risk assessor. Save complex risk tables for the ROD.
- Discuss only the major contaminants of concern that are driving the need for action at the site (unless necessary to justify a No Action decision).
- Link the site risks described in the baseline risk assessment to the need for taking action at the site (*i.e.*, use standard language in Highlight 3-2).

could also be discussed in this section if appropriate.[2] For an explanation of the term "RAO," see Section 6.3.8.

3.3.7 Summary of Remedial Alternatives

This section communicates to the public the lead agency's options for attaining the proposed remedial action objectives for the site. The *Summary of Remedial Alternatives* section should briefly describe the alternatives studied in the detailed analysis phase of the FS Report. The alternative that is recommended as the Preferred Alternative should be identified as such at the beginning of this section. Common elements of each alternative should be described at the beginning of the section, and the remainder should focus on those distinctions that make each alternative unique. This description should contain enough information about remedy components and distinguishing features so that the public can understand the conclusions drawn from the evaluation of alternatives. For example, if an alternative involves an ARAR waiver or will restrict potential land uses available following cleanup, these points should be stated in the alternative description, not mentioned for the first time in the evaluation of alternatives that follows.

Examples of remedy components include the following:

- *Any treatment technologies* employed and how they will reduce the intrinsic threats posed by the contamination (*e.g.*, toxicity, mobility)
- *Engineering controls* employed including temporary storage and permanent on-site waste containment.
- *Institutional controls* employed which will supplement any long-term engineering controls by providing notice of remaining contamination and/or restricting future activities that could result in exposure to residual contamination.

Technology terms used to describe remedy components that are likely to be unfamiliar to the public, such as "soil vapor extraction" or "treatment trains," should be explained in the remedial alternative description or in a glossary. Where possible, use general terms to describe cleanup technologies (*e.g.,* "biological treatment," "chemical extraction").

Distinguishing features will vary based on site-specific conditions and remedy specifications. These features may include:

- *Remedial action objectives to be achieved* (*e.g.*, one alternative might be aimed at treating highly contaminated soil while another is aimed at removing highly contaminated soil from the site).
- *Estimated quantities of material to be addressed* (*e.g.*, an alternative which will remediate discrete concentrated pockets of contaminants in soil will address fewer cubic yards of soil than an alternative which calls for remediation of all of the site's contaminated soil).
- *Implementation requirements* (*e.g.*, the need for an off-site disposal facility).

[2] PRGs are developed during the RI/FS and are based on ARARs and other readily available information, such as concentrations associated with 10^{-6} cancer risk or a hazard quotient equal to one for non-carcinogens calculated from EPA toxicity information. Initial PRGs may also be modified based on exposure, uncertainty, and technical feasibility factors. As data are gathered during the RI/FS, PRGs are refined into final contaminant-specific cleanup levels. Based on consideration of factors during the nine criteria analysis and using the PRG as a point of departure, the final cleanup level may reflect a different risk level within the acceptable risk range (10^{-4} to 10^{-6} for carcinogens) than the originally identified PRG.

- *Key ARARs* (generally action- or location-specific ARARs) that differ from those that must be attained by other alternatives. For example, source control remedies at industrial facilities which involve placement of RCRA hazardous waste or site closure should discuss RCRA Land Disposal Restrictions (LDRs) and RCRA Subtitle C or D closure standards, respectively. Any proposed ARAR waivers must be discussed pursuant to NCP §300.430(f)(2)(iv). RCRA treatability and no migration variances should also be discussed.

- *Reasonably anticipated future land use.* Note which alternatives facilitate the reasonably anticipated future land uses. Time frames and the amount of the site available for the reasonably anticipated future land use may vary across alternatives and should be noted as well.

- *Expected outcomes.* Describe the expected outcomes of each alternative in terms of its compatibility with reasonably anticipated future land uses, potential future ground-water uses, and other benefits or impacts associated with alternative remediation approaches.

- *Use of presumptive remedies or innovative technologies.*

Highlight 3-4: Tips on Writing Summary of Remedial Alternatives

- Identify the Preferred Alternative at the beginning of its description.

- Include enough information in the description of alternatives about remedy components and distinguishing features of each alternative so that the public will understand the comparative analysis.

- Describe components common to a number of alternatives only once (*e.g.*, all alternatives, with the exception of the no action alternative, will attain PRGs).

- Include all three components of estimated cleanup costs — capital, annual O&M, and total present worth.

- *Estimated time to construct and implement the remedy until the Remedial Action Objectives are met.*

- *Estimated costs.* Cost must be separated into capital (construction), annual operations and maintenance (O&M), and total present worth. Long-term O&M costs can be a significant factor in determining which cleanup options are more or less expensive than others. A total present worth cost estimate for each alternative allows the public to compare different alternatives that have varying amounts of O&M costs. Use the same discount rate for all alternatives evaluated (current OSWER policy is 7%).

3.3.8 Evaluation of Alternatives

The Evaluation of Alternatives explains the lead agency's rationale for selecting the Preferred Alternative. The nine criteria used to evaluate the alternatives and compare them to one another in the detailed analysis in the FS should also be presented in the Proposed Plan. The rationale for selecting the Preferred Alternative should be presented in terms of its ability to appropriately balance the trade-offs with respect to the nine criteria. A glossary that defines each criterion may be used. A comprehensive analysis of each alternative in relation to each of the nine criteria need not be presented. The reader of the Proposed Plan should be directed to the comparative analysis contained in the RI/FS Report for a more detailed explanation. A table may be helpful in summarizing key information from the evaluation of alternatives, but should not substitute for a narrative discussion. If a table is used, the Proposed Plan should provide a narrative analysis of the information in the table.

The nine criteria fall into three groups: threshold criteria, primary balancing criteria, and modifying criteria. A description of the purposes of the three groups follows:

- *Threshold criteria*, which are requirements that each alternative must meet in order to be eligible for selection.

- *Primary balancing criteria,* which are used to weigh major trade-offs among alternatives.

- *Modifying criteria*, which may be considered to the extent that information is available during the FS, but can be fully considered only after public comment is received on the Proposed Plan. In the final balancing of trade-offs between alternatives upon which the final remedy selection is based, modifying criteria are of equal importance to the balancing criteria.

Highlights 3-5 and 3-6 present information on the organization of the criteria and the major points that should be addressed under each criterion. Additional information on the nine criteria and detailed analysis of alternatives are provided in the NCP and the *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final* (EPA 540-G-89-004, October 1988).

3.3.9 Preferred Alternative

This section of the Proposed Plan describes the Preferred Alternative, and notes what key RAOs it will achieve as well as how it addresses source materials constituting principal threats (this provides a basis for satisfying the statutory preference for treatment as a principal element of the remedy). This section should also note that the Preferred Alternative can change in response to public comment or new information. A statement explaining the rationale for recommending the Preferred Alternative over other alternatives based on the nine criteria analysis must be included. Where appropriate, include figure(s) illustrating the proposed treatment technologies.

The Preferred Alternative summary should be similar to the following:

> *Alternative 2B, In-situ Soil Vapor Extraction, Solidification, and Capping is the Preferred Alternative. This alternative is recommended because it will achieve substantial risk reduction by both treating the source materials constituting principal threats at the site and providing safe management of remaining material. This combination reduces risk sooner and costs less than the other alternatives.*

A statement summarizing the support agency's concurrence or nonconcurrence with the recommended alternative, if known, must be included in the Proposed Plan, preferably in this section. Conclude with a summary statement similar to the following:

> *Based on information currently available, the lead agency believes the Preferred Alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The (name of lead agency) expects the Preferred Alternative to satisfy the following statutory requirements of CERCLA §121(b): (1) be protective of human health and the environment; (2) comply with ARARs (or justify a waiver); (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element, or explain why the preference for treatment will not be met.*

Highlight 3-5: Nine Criteria for Remedial Alternatives Evaluation

THRESHOLD CRITERIA

1 Overall Protection of Human Health and the Environment

- How the Alternative Provides Human Health and Environmental Protection

2 Compliance with ARARs (Or justification of a Waiver)

- Compliance with Chemical-Specific ARARs
- Compliance with Location-Specific ARARs
- Compliance with Action-Specific ARARs
- Compliance with Other Criteria, Advisories, and Guidance

PRIMARY BALANCING CRITERIA

3 Long-Term Effectiveness and Permanence

- Magnitude of Residual Risk
- Adequacy and Reliability of Controls

4 Reduction of Toxicity, Mobility, or Volume Through Treatment

- Treatment Process Used and Materials Treated
- Amount of Hazardous Materials Destroyed or Treated
- Degree of Expected Reductions in Toxicity, Mobility, or Volume
- Degree to Which Treatment is Irreversible
- Type and Quantity of Residuals Remaining After Treatment

5 Short-Term Effectiveness

- Protection of Community During Remedial Actions
- Protection of Workers During Remedial Actions
- Environmental Impacts
- Time Until Remedial Action Objectives are Achieved

6 Implementability

- Ability to Construct and Operate the Technology
- Reliability of the Technology
- Ease of Undertaking Additional Remedial Actions, if Necessary
- Ability to Monitor Effectiveness of Remedy
- Ability to Obtain Approvals from Other Agencies
- Coordination with Other Agencies
- Availability of Off-Site Treatment, Storage, and Disposal Services and Capacity
- Availability of Necessary Equipment and Specialists
- Availability of Prospective Technologies

7 Cost

- Estimated Capital Costs
- Estimated Annual Operation and Maintenance Costs
- Estimated Present Worth Costs

MODIFYING CRITERIA[1]

8 State Acceptance

- Features of the Alternative the State Supports
- Features of the Alternative About Which the State has Reservations
- Elements of the Alternative the State Strongly Opposes

9 Community Acceptance

- Features of the Alternative the Community Supports
- Features of the Alternative About Which the Community has Reservations
- Elements of the Alternative the Community Strongly Opposes

[1]These criteria are fully assessed following comment on the RI/FS Report and the Proposed Plan, and are fully addressed in the ROD.

Highlight 3-6: Tips For Preparing Nine Criteria Analysis

Overall Protection of Human Health and the Environment

In every FS, a "no action" alternative is developed as a baseline for comparative analysis purposes. In cases where the no action alternative is found not to meet this criterion, it can be ruled out for further consideration and, therefore, need not be discussed further in the nine criteria analysis.

Compliance with ARARs

For an alternative to pass into the detailed analysis stage of the RI/FS and thus become eligible for selection, it must comply with its ARARs or a waiver should be identified and the justification provided for invoking it. An alternative that cannot comply with ARARs, or for which a waiver cannot be justified, should be eliminated from consideration for further discussion as a potential alternative in the Proposed Plan or ROD.

Long-Term Effectiveness and Permanence

Long-term effectiveness and permanence of an alternative should be viewed along a continuum (*i.e.*, an alternative can offer a greater or lesser degree of long-term effectiveness and permanence). Alternatives that are more effective in the long-term are more permanent.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Each characteristic (*i.e.*, toxicity reduction through treatment, mobility reduction through treatment, and volume reduction through treatment) should be analyzed independently and collectively to determine how effectively treatment is being employed by the remedial alternative. In addition, other elements should be considered such as the risks posed by residuals. A containment remedy does not reduce the toxicity, mobility, or volume of contaminants through treatment.

Short-Term Effectiveness

Short-term effectiveness considers the amount of time until the remedy effectively protects human health and the environment at the site. It also includes an evaluation of the adverse effects the remedy may pose to the community, workers, and the environment during implementation. Possible adverse effects should be evaluated in advance to determine mitigative steps to adequately minimize the impact on the community, workers, or environment and to minimize any risks that would remain at the site. Institutional controls and other active measures (*e.g.*, interim remedies and removal actions) can often mitigate short-term effects and, therefore, should be considered when analyzing the remedial alternative.

Implementability

This criterion considers the ease of implementing the remedy in terms of construction and operation, and the availability of services and materials required to implement the alternative. Technical considerations also include the reliability of the technology, the effect on future remedial action options, and monitoring at the site. It is important to consider and include variables such as the site's topography, location, and available space. Implementability is significant when evaluating treatment technologies that are dependent on resources such as facilities, equipment, professionals or experts, and especially technologies that have not been proven effective. In addition, administrative feasibility, which includes activities that need to be coordinated with other offices and agencies (*e.g.*, obtaining permits for off-site activities or rights-of-way for construction), should be addressed when analyzing this criterion.

Cost

The costs of remedies always should be qualified as estimates with an expected accuracy of +50% to -30%

State/Support Agency Acceptance

Where there are major support agency comments, they must be summarized under this criterion (see NCP §300.430(f)(2)). The lead agency's response to those comments also should be summarized here.

Community Acceptance

Because information available on the community acceptance criterion may be limited before the public comment period for the Proposed Plan and the RI/FS Report, the Proposed Plan should indicate that this factor will be fully evaluated in the ROD. However, the Proposed Plan should also provide a preliminary summary of communities' views, with special emphasis from those in the community directly impacted or affected. Proposed Plans should not speculate on community acceptance of the alternatives.

Highlight 3-7: Tips on Writing Preferred Alternative

- Clearly describe the decisive factors that form the basis of why the Preferred Alternative is recommended over the other alternatives.
- Mention any uncertainties or contingencies related to the Preferred Alternative.
- Emphasize that the Preferred Alternative is based on current information and that it could change in response to public comment or new information.

3.3.10 Community Participation

Information on how the public can be involved in the remedy selection process should be presented in the Proposed Plan to fulfill the public participation requirements under NCP §300.430(f)(3). Depending on the format of the Proposed Plan, community participation information can be placed on the front page or in a separate section at the end of the Proposed Plan. The sample Proposed Plan in Appendix A illustrates the placement of community participation information on both the front page and at the end of the Plan. The following public participation information should be included in the Proposed Plan:

- Dates of the public comment period (*e.g.*, March 1 through March 30);
- Date, time, and location of the public meeting on the Proposed Plan (or an offer to hold a meeting upon request if one has not been scheduled);
- Locations of the Administrative Record file;
- Names, phone numbers, and addresses of the lead and support agency personnel (including an Internet address) who will receive comments on the Proposed Plan or who can supply additional information; and
- Name and contact number of local Community Advisory Group (CAG), if applicable.

In addition to the above information, a sheet on which the public can submit written comments can be provided in the Proposed Plan (see the last page of Appendix A for an example).

3.4 FORMAT FOR THE PROPOSED PLAN

The Proposed Plan should be written clearly and concisely, since it will likely be read by a broad public audience. The Plan should tell the story of the site so that those unfamiliar with the site will understand the contamination problems and the risks they pose.[3] The Plan should clearly describe why the lead agency is recommending the Preferred Alternative.

It is very important that the level of detail and content of the Proposed Plan be tailored to the needs and concerns of the individual community that lives around a Superfund site and the stakeholders involved in the Superfund remedy selection process (*e.g.*, PRPs). The lead agency should identify its intended audience prior to preparation of the Proposed Plan in order to optimize its effectiveness. Additional fact sheets may be necessary depending on site circumstances (see Section 3.5).

Appendix A contains an example of a Proposed Plan that follows the format and content recommended by this guidance document. This format is recommended for most sites as it affords the public and involved stakeholders the most complete and explicit rationale for the Preferred Alternative.

3.5 PROPOSED PLAN FACT SHEET

A shorter summary of the remedy selection process, with less technical information, may help to ensure that the widest possible audience is reached. Therefore, this guidance recommends the development of a Proposed Plan fact sheet whenever a more detailed Proposed Plan is prepared.

The front page of a fact sheet should be designed to attract the attention of lay readers. It should highlight the proposed remedy and encourage the reader to

[3] Illustrations of the site and technological processes being proposed, as well as tables and/or charts, should be utilized to maximize the public's understanding of site conditions, potential risks, alternatives being considered, and the Preferred Alternative.

submit comments. The fact sheet should then describe the risks posed by the site and the alternatives considered. The back page should reiterate how the public can obtain copies of the Proposed Plan and submit comments, and should note points of contact for questions and further information. An example of a Proposed Plan fact sheet is provided on the next page. This is an example of a fact sheet that could accompany the sample Proposed Plan found in Appendix A.

3.6 PROPOSED PLANS TO HEADQUARTERS

All draft Proposed Plans should be sent to the appropriate EPA headquarters regional coordinator for review pursuant to *Focus Areas for Headquarters OERR Support for Regional Decision Making* (OSWER 9200.1-17, May 1996). Some remedy selection decisions will also be eligible for consultation with the National Remedy Review Board or another Cross-Regional review group. See the Remedy Review Board web site (http://www.epa.gov/ superfund/programs/nrrb/index.htm) and Appendix C for a more information on Proposed Plan consultation procedures. Final Proposed Plans should be sent to EPA Headquarters consistent with the procedures described in Appendix D (Records of Decision and Other Decision Documents to EPA Headquarters).

Invitation to Comment on the Proposed Cleanup of EIO Industrial Site, Nameless, TN

You have the chance to comment on the Proposed Plan for cleaning up the EIO Industrial Superfund site at a public meeting on March 13, 1999. The United States Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) want to hear your views about the plans for this toxic waste cleanup project. We have carefully studied the site and now believe that the following actions are the best way to protect your health and the environment.

- Dig up 7,500 cubic yards of contaminated soil. Heat the soil through a process called thermal desorption, which will separate out and collect dangerous toxins. These toxic materials will be sent to a licensed hazardous waste disposal facility. The cleaned soil will be returned to the area it came from and covered with soil and grass. This will cost $6.2 million and take 2 years to complete.
- Pump the more highly contaminated ground water to the surface. Run it through a special treatment system (involving air-strippers and carbon adsorption) to remove the dangerous chemicals. Discharge the clean water to the XYZ River. Keep watch on the remaining ground water to make certain it presents no further danger. This will cost $3.7 million and take 18 years to complete.

You may make comments at the public meeting. You also have until March 30, 1999, to supply written comments on the Proposed Plan or other material in the Administrative Record file. At the end of the comment period, EPA and TDEC will review the suggestions and make a final decision about the site cleanup. Your input on the Proposed Plan is an important part of the decision- making process. We want to hear from you and will pay serious attention to what you have to say.

Tell Us What You Think

Submit Written Comments

Public Comment Period:

March 1 – March 30, 1999

EPA will accept written comments on the Proposed Plan during the public comment period. You may submit your comments to:

Ms. RPM
U.S. EPA (Mail Code 4XXX)
61 Forsyth Street, S.W.
Atlanta, GA 30303-3104

Attend the Public Meeting

Public Meeting:

You are invited to a meeting sponsored by EPA to hear about the Proposed Plan for cleaning up the EIO Industrial site. At the meeting you will be able to state your views about the cleanup.

The meeting will be held:

March 13, 1999
7:30 p.m.
at
Nameless Community Hall
237 Appleton Street
Nameless, TN

Locations of Administrative Record

Public Library
619 South 20th Street
Nameless, TN 00000
(101) 999-1099
Hours: Mon-Sat, 9 a.m. to 9 p.m.

U.S. EPA Records Center
Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303-3104
(555) 555-5555
Hours: Mon-Fri, 8:30 a.m. to 5:00 p.m.

SITE RISKS

During the 1980s, the EIO Industrial Company disposed of liquid industrial wastes at its factory located at 81 North Delaware Avenue in Nameless, Tennessee. EPA and TDEC have spent the last two years studying the property to determine what risks it poses to the health and welfare of the people who live or work near it. We found that there is some risk to people who come into contact with contaminated soil or ground water. While the chance of becoming sick as a result of exposure to the contaminants is small, it is serious enough to require that actions be taken to reduce the levels of chemicals present in the soil and ground water to safe levels. To provide more protection while the cleanup is being done, we have already put a fence around the site and connected 50 homes to the public water supply system.

CLEANUP GOALS

- Reduce further contamination of surface and ground waters.
- Restore the ground water to standards established under the Safe Drinking Water Act.
- Reduce the risk posed by direct contact with contaminated soils.

YOUR COMMENTS

We looked at a number of ways to meet the cleanup goals, which are described more completely in the Proposed Plan and Administrative Record file. EPA and TDEC believe that the Preferred Alternative identified on the previous page will protect your health and the environment and can be done without major nuisance to your community. However, before making a final decision, we want to hear what you think. We encourage you to find out more about the cleanup plan and make your views and concerns known on all the options that were considered. The cleanup plan that is finally chosen will be described in a Record of Decision. That document will include a summary of the comments received along with how those comments changed the decision that was reached.

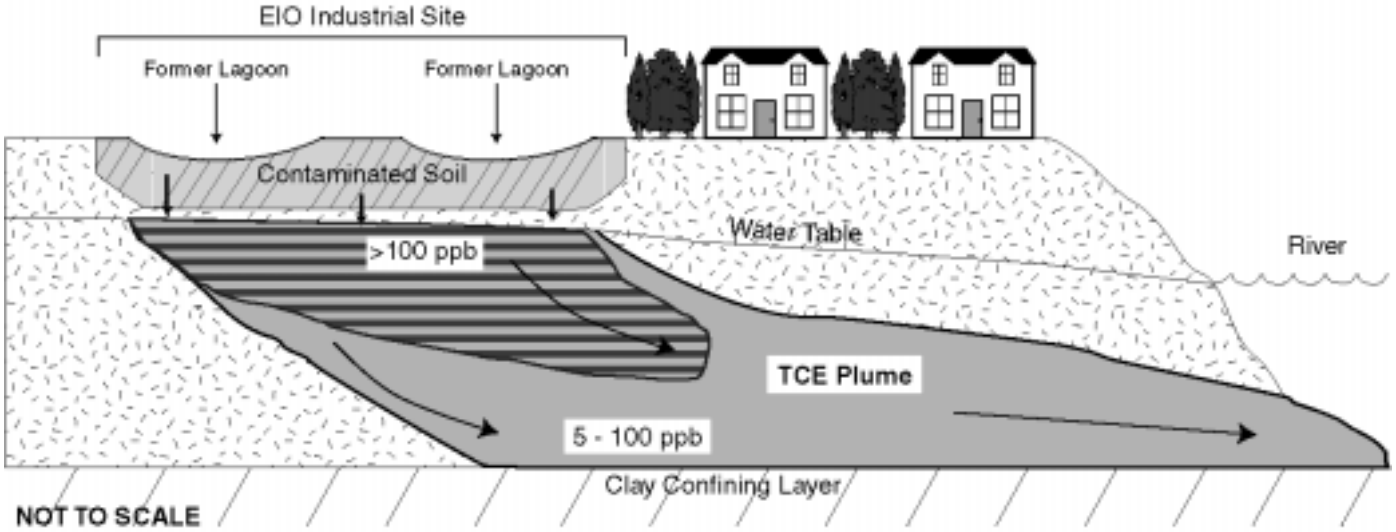
FOR MORE INFORMATION . . .

You can see a copy of the Proposed Plan, which describes the cleanup alternatives we studied, and also get more information about the site by visiting the Administrative Record file which can be found at:

Public Library
619 South 20th Street
Nameless, TN 00000
Tel: 101-999-1099
Hours: Mon-Sat 9 a.m. to 9 p.m.

You can also stop by the EPA office that is on the site to see a copy of the Plan. That office is open to the public Mondays and Thursdays from 3 p.m. to 8 p.m. Finally, you can ask for a copy of the Proposed Plan to be sent to you by calling 1-800-333-3333.

Contaminant Location and Movement



RECOMMENDED OUTLINE AND CHECKLIST FOR A PROPOSED PLAN

See Chapter 3 of ROD Guidance for more information

A. Introduction

- ☐ Site name and location.
- ☐ Lead and support agencies (*e.g.*, EPA, State, Federal facility).
- ☐ Purpose of document (*i.e.*, satisfy statutory and regulatory requirements for public participation). At a minimum, the Proposed Plan must:
  - Provide a brief summary description of the remedial alternatives evaluated in the detailed analysis;
  - Identify and provide a discussion of the rationale that supports the Preferred Alternative;
  - Provide a summary of any formal comments received from the support agency; and
  - Provide a summary explanation of any proposed ARAR waiver.
- ☐ Refer the public to the RI/FS Report and Administrative Record file for more information.

B. Site Background

- ☐ Contaminated media at the site (*e.g.*, soil, air, ground water, and surface water).
- ☐ History of waste generation or disposal that led to current problems.
- ☐ History of Federal State, and local site investigations.
- ☐ Description of removal or previous remedial actions conducted under CERCLA or other authorities.
- ☐ History of CERCLA enforcement activities at the site (*e.g.*, brief description of PRP searches or special notices issued, and whether PRPs have conducted any of the studies upon which the Proposed Plan is based).
- ☐ Description of major public participation activities initiated *prior* to the issuance of the Proposed Plan.

C. Site Characteristics

- ☐ Geographical or topographical factors that had a major impact on remedy selection (*e.g.*, resources affected or threatened by site contamination such as current or potential drinking water sources or wetlands).
- ☐ Nature and extent of contamination (*i.e.*, vertical and lateral extent of contaminated areas).
- ☐ A site map that shows location of roads, buildings, drinking water wells and other characteristics that are important to understanding why the remedial objectives and Preferred Alternative are appropriate for the site.
- ☐ Materials constituting principal threats (*e.g.*, location, volume and nature of mobile/high-toxicity/high-concentration source material).

D. Scope and Role of Operable Unit (OU) or Response Action

- ☐ Overall cleanup strategy for the site.
- ☐ Scope of problems addressed by the operable unit.
- ☐ Relationship of proposed action to removal or other operable units at the site (include purpose of each operable unit and sequence of the action in relation to other operable units or removals).
- ☐ How action addresses source materials constituting principal threats (*e.g.*, treatment technology will be used to permanently reduce the toxicity, mobility, and volume of these source materials).

[Note: Remedies which involve treatment of source materials constituting principal threat wastes likely will satisfy the statutory preference for treatment as a principal element, although this will not necessarily be true in all cases.]

E. Summary of Site Risks

- ☐ Key findings of the baseline risk assessment by describing the:
  - Major chemicals of concern (COCs) in each medium;
  - Land and ground-water use assumptions;
  - Potentially exposed populations in current and future risk scenarios (*e.g.*, worker currently on site, adult or children living on site in future);
  - Exposure pathways (routes of exposure) and how they relate to current or reasonably anticipated future land and ground-water use; and
  - Estimated cancer and non-cancer risks associated with exposure pathways for chemicals of concern that are driving the need for action.
- ☐ Conclusions of the ecological risk assessment (*e.g.*, the basis of environmental risks associated with specific media and how these risks were determined).
- ☐ Standard concluding statement that supports the need for taking action (unless it is a "no action" situation):

  "It is the lead agency's current judgment that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment."

F. Remedial Action Objectives

- ☐ Proposed Remedial Action Objectives (RAOs) and how they address site risks (*e.g.*, prevent contamination from reaching the ground water by treating the contaminated soils).
- ☐ Present and describe the basis for preliminary cleanup levels (which will become final remediation goals in the ROD) for *major* contaminants of concern (*e.g.*, preliminary remediation goal of 5 ppm for TCE is based on Federal MCL for drinking water).

G. Summary of Remedial Alternatives

- ☐ Narrative description of alternatives evaluated including remedy components and distinguishing features unique to each alternative.
- ☐ <u>Remedy components</u> should include:
  - Treatment technologies employed and a how they will reduce the intrinsic threat posed by the contamination;
  - Engineering controls including temporary storage and permanent on-site containment;
  - Institutional controls that will restrict future activities that might result in exposure to contamination (*e.g.*, easements and covenants); and
  - Monitoring requirements.
- ☐ <u>Distinguishing features</u> could include:
  - Remedial action objectives (RAOs) to be achieved by the alternative (*e.g.*, return surface water to recreational use);
  - Estimated quantities of material to be addressed by major components;
  - Implementation requirements (*e.g.*, the need for an off-site disposal facility);
  - Key ARARs, proposed ARAR waivers, and RCRA treatability and no migration variances;
  - Reasonably anticipated future land use and whether or not it will be achieved by the alternative;
  - Expected outcomes (*e.g.*, in terms of compatibility with reasonably anticipated future land uses);
  - Use of presumptive remedies or innovative technologies;
  - Estimated time to construct and implement the remedy until RAOs are met; and
  - Estimated costs, separated into capital (construction), annual operations and maintenance (O&M), and total present worth costs.

H. Evaluation of Alternatives

- ☐ Explanation of the nine evaluation criteria and how they are used to analyze the alternatives. A glossary that defines the criteria may be used.

I. Preferred Alternative

- ☐ Identification of the Preferred Alternative, the RAOs that it would achieve, and how it will address source materials constituting principal threats at the site.
- ☐ Statement that the Preferred Alternative can change in response to public comment or new information.
- ☐ A brief statement that describes the most decisive considerations from the nine criteria analysis that affected the selection of the Preferred Alternative (*e.g.*, completion of remedy sooner and at less cost than other alternatives).
- ☐ Any uncertainties or contingency measures.
- ☐ Expected outcomes of the Preferred Alternative, including risk reduction (how risk identified in baseline risk assessment will be addressed).
- ☐ The support agency's concurrence or non-concurrence with the Preferred Alternative, if known.
- ☐ Concluding summary statement by the lead agency at the end of this section similar to:

  "Based on information currently available, the lead agency believes the Preferred Alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The (name of lead agency) expects the Preferred Alternative to satisfy the following statutory requirements of CERCLA §121(b): 1) be protective of human health and the environment; 2) comply with ARARs (or justify a waiver); 3) be cost-effective; 4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and 5) satisfy the preference for treatment as a principal element (or justify not meeting the preference)."

J. Community Participation

- ☐ Dates of public comment period for the Proposed Plan (written to encourage public comments).
- ☐ Time and place for a public meeting(s) (already scheduled) or offer opportunity for meeting if one has not been scheduled.
- ☐ Locations of the Administrative Record file.
- ☐ Names, phone numbers and addresses of lead and support agency personnel who will receive comments or can supply additional information.
- ☐ Name and contact number of local Community Advisory Group (CAG), if applicable.

4.0 PRE-RECORD OF DECISION CHANGES

4.1 OVERVIEW

After the public comment period ends, a remedial alternative is selected as the remedy that will be documented in the ROD. The selection of the remedy is based on the analysis presented in the Proposed Plan and RI/FS Report, giving consideration to the comments received from the support agency and the public, as well as any other new and significant information received or generated during the public comment period. The lead agency may re-evaluate its Preferred Alternative in light of this information and may change a component of the preferred remedy or choose to select a remedy other than the Preferred Alternative in making the final remedy selection decision.

The NCP requires that certain steps be taken after publication of the Proposed Plan and before remedy selection in the ROD if new information is made available that significantly changes the basic features of the Preferred Alternative identified in the Proposed Plan. The lead agency must determine the following: 1) are the changes significant, and 2) could the changes have been reasonably anticipated based on the information presented to the public (NCP §300.430(f)(3)(ii)).

This chapter presents a general framework for determining if changes to the Preferred Alternative are "significant" or "minor." It also specifies documentation and communication activities that may be necessary to inform the public of these changes. The chapter discusses changes made before the ROD is signed; post-ROD changes are discussed in Chapter 7.

4.2 IDENTIFYING TYPES OF PRE-RECORD OF DECISION CHANGES

The lead agency has the discretion to make changes to the Preferred Alternative identified in the Proposed Plan based either on new information received from the public or support agency or on information generated by the lead agency itself during the remedial process. A site-specific determination of what constitutes a significant (as opposed to minor) change, and therefore the extent of documentation required, is made after taking into consideration the impact that the change may have on the Preferred Alternative's scope, performance, or cost.

4.2.1 Minor Changes

Minor changes are those that have little or no impact on the overall scope, performance, or cost of the alternative originally presented in the Proposed Plan as the Preferred Alternative for the site or operable unit. Such changes typically will be clarifications, administrative changes, and minor technical or engineering changes that do not significantly alter the overall scope, performance, or cost of the alternative.

4.2.2 Significant Changes

In contrast to minor changes, significant changes have a significant or fundamental effect on the scope, performance, and/or cost of the Preferred Alternative. Examples of these three factors include:

- *Scope*: Changes that substantially alter the type of treatment or containment technology, physical area of response, remediation goals, or type and volume of waste to be addressed.

- *Performance*: Changes in treatment technologies or processes that significantly alter the long-term effectiveness of the Preferred Alternative or that have significantly different short-term effects.

- *Cost*: Changes to any aspect of the Preferred Alternative that substantially alter the capital or O&M cost estimates for the alternative. Feasibility Study cost estimates are expected to provide an accuracy of +50 percent to -30 percent.

Significant changes generally involve either of the following:

- Selecting an RI/FS alternative other than the Preferred Alternative identified in the Proposed Plan as the remedy.

- Substantially modifying a component of the previously identified Preferred Alternative.

"Significant change" is not specifically defined in this guidance because what constitutes a significant change

will vary depending upon site circumstances and the manner in which the information was presented in the RI/FS Report and Proposed Plan. Highlight 4-1 summarizes the process for analyzing and documenting pre-ROD changes.

4.3 DOCUMENTING PRE-RECORD OF DECISION CHANGES

CERCLA §117(b) and NCP §300.430(f)(3)(ii) require that if significant pre-ROD changes that could be reasonably anticipated are made to the recommended remedy, these changes and the reason for the changes must be discussed in the ROD.

4.3.1 Documenting Minor Changes

Although the NCP does not require documentation of minor changes, such changes to the Proposed Plan should be discussed in the *Description of Alternatives* section of the ROD's *Decision Summary* and should be documented in the Administrative Record file. Minor changes should not be discussed in the *Documentation of Significant Changes* section of the ROD's *Decision Summary*.

4.3.2 Documenting Significant Changes

NCP §300.430(f)(3)(ii) states that after publication of the Proposed Plan and prior to the adoption of the Selected Remedy in the ROD, if new information is made available that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal in the Proposed Plan and the supporting analysis and information, the lead agency must:

- Include a discussion in the ROD of the significant changes and reasons for such changes, if the lead agency determines such changes could be reasonably anticipated by the public based on the alternatives and other information available in the Proposed Plan or the supporting analysis and information in the Administrative Record file; or

- Seek additional public comment on a revised Proposed Plan, when the lead agency determines the change could not have been reasonably anticipated by the public based on the information available in the Proposed Plan or the supporting analysis and information in the Administrative Record file. The lead agency must, prior to adoption of the Selected Remedy in the ROD, issue a revised Proposed Plan, which must include a discussion of the significant changes and the reasons for such changes.

Scenario 1: Significant Changes That Could Have Been Reasonably Anticipated Based on the Information Available to the Public

A significant change that could be reasonably anticipated based on information available to the public in the Proposed Plan or the supporting analysis and information in the Administrative Record file must be discussed in the ROD (*i.e.*, documented at the end of the ROD's *Decision Summary* in the *Documentation of Significant Changes* section). Additional public notice or comment on this type of change is not required, but may be advisable on a site-by-site basis. Examples of significant changes that may be considered "reasonably anticipated" include the following:

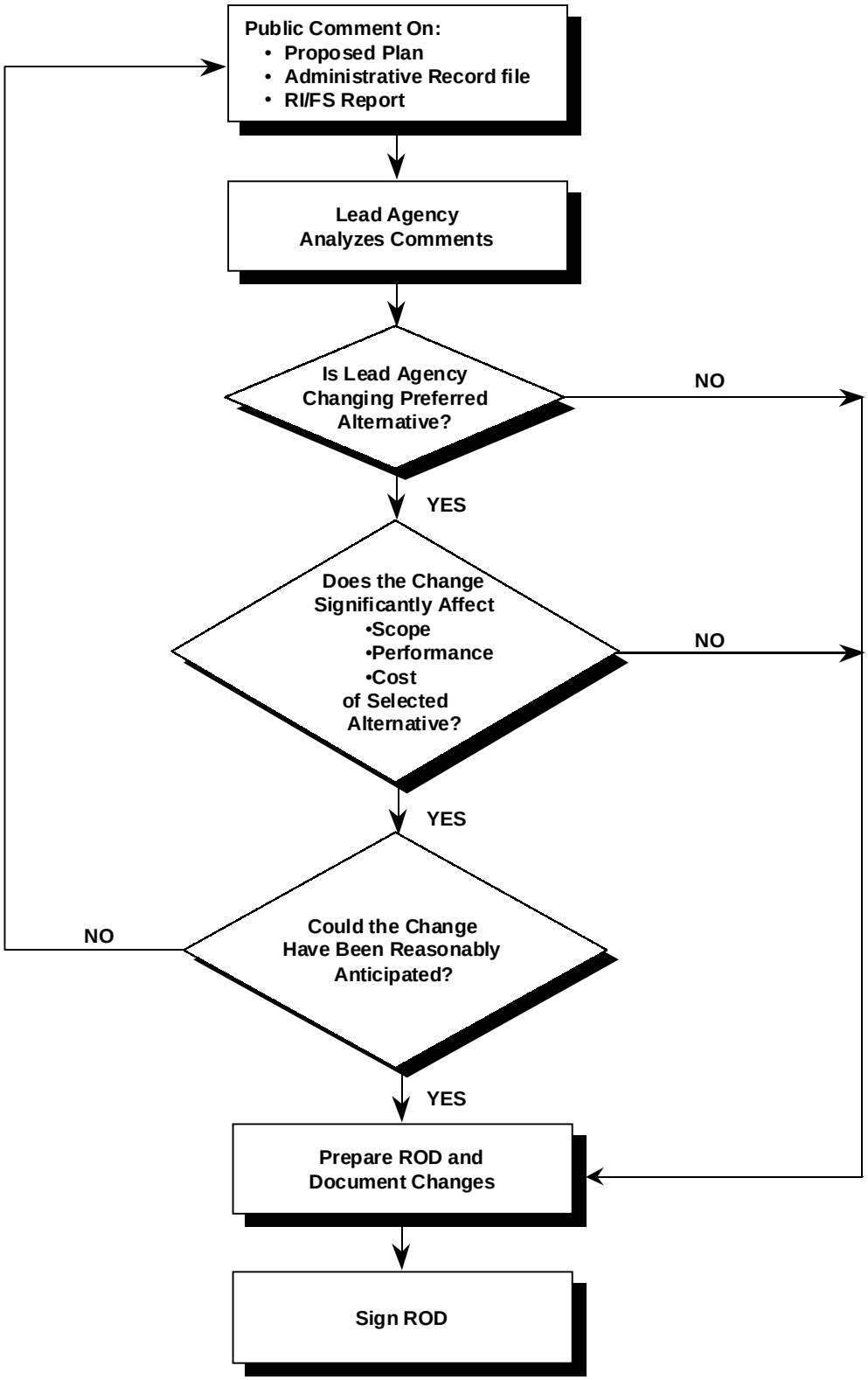
- ***Changing a Component of the Preferred Alternative***

In response to comments, the lead agency makes a significant change to a component of the Preferred Alternative that could have been reasonably anticipated by the public based on information in the RI/FS and Proposed Plan (*e.g.*, a change in the Preferred Alternative's cost, timing, level of performance, or ARARs).

- ***Selecting a Different Alternative***

More than one acceptable alternative is identified in the Proposed Plan, and the lead agency subsequently determines that an alternative other than the Preferred Alternative provides the most appropriate balance of trade-offs among the alternatives with respect to the nine evaluation criteria. Because the public had been apprised previously that the alternative (or any other alternative in the detailed analysis) might be selected as the remedy, the public had adequate opportunity to review and comment on it, and thus the change can be documented in the ROD without additional public comment.

Highlight 4-1: Pre-Record of Decision Changes



- ***Combining Components of Alternatives***

In response to comments received during the public comment period and consistent with options presented in the Proposed Plan, the final remedial alternative combines one component of the Preferred Alternative (*e.g.*, a ground-water component) with a component of another alternative that was evaluated in the FS (*e.g.*, additional source control measures).

Scenario 2: Significant Changes That Could Not Have Been Reasonably Anticipated Based on the Information Available to the Public

In those limited situations in which the significant change could not have been reasonably anticipated by the public based on information in the Proposed Plan and Administrative Record file, a revised Proposed Plan that presents the new Preferred Alternative must be issued for public comment (NCP §300.430(f)(3)(ii)(B)). The revised Proposed Plan must be prepared in accordance with both CERCLA §117 and the NCP. Appropriate supporting material that provides the necessary engineering, cost, and risk information for the new alternative, and that discusses how the new alternative compares to the other alternatives with respect to the nine evaluation criteria should be provided in the revised Proposed Plan. It may be appropriate to provide this information as a supplement to the RI/FS Report, but it should be summarized for the public in the Proposed Plan.

In addition, the significant changes to the initial Proposed Plan should be documented at the end of the ROD's *Decision Summary* in the *Documentation of Significant Changes* section. This description should identify the changes to the Preferred Alternative and the reason for the changes. Examples of significant changes that could not be considered "reasonably anticipated" include the following:

- ***Identification of a New Preferred Alternative Not Previously Considered***

The lead agency determines that an alternative not presented in the Proposed Plan or detailed analysis phase of the RI/FS Report should be selected as the remedy. The new Preferred Alternative is not a combination of different components of the alternatives considered. The lead agency must issue a revised Proposed Plan that presents the new Preferred Alternative and provides appropriate supporting information for public comment.

- ***Significant Change to a Component of the Preferred Alternative***

Part of the remedy must be altered, resulting in fundamental changes to the remedy. Such changes require additional public comment if they will significantly change the basic features of the remedy (*e.g.*, a change in the remedy that results in a significant increase in the volume of waste managed, the physical scope of the action, the institutional controls required to maintain the integrity of the remedy, or the estimated cost of the action).

Use of an ARAR waiver may require a revised Proposed Plan if not discussed in the original Proposed Plan. The NCP specifies that ARAR waivers must be discussed in a Proposed Plan so that the public will have an opportunity to comment on the use of the waiver and the alternative cleanup levels proposed (NCP §300.430(f)(2)(iv)).

Highlight 4-2 presents examples of minor changes, as well as significant changes that could and could not have been reasonably anticipated by the public. Guidance on how to document significant pre-ROD changes in the ROD is presented in Section 6.3.14.

Highlight 4-2: Examples of Pre-Record of Decision Changes

(NOTE: Examples are not meant to present strict thresholds for changes in cost, volume, or time.)

Minor Changes

- It was determined that a remedy will require an estimated 10 ground water extraction wells, rather than six wells, as estimated originally in the Proposed Plan, to achieve remedial action objectives within the estimated time period.

- The volume of material to be excavated and treated is actually 120,000 cubic yards, rather than the 110,000 cubic yards, as estimated originally in the Proposed Plan.

- Based on information received during the public comment period, the lead agency determined that the capital cost estimate in the Proposed Plan was about 10 percent too low; the revised estimated capital cost of the remedy is $5,100,000. The lead agency also identified factors that would extend the implementation time frame from 15 to 20 months. These changes do not significantly alter the scope, performance, or cost of the remedy.

Significant Changes That Could Be Reasonably Anticipated

- The Proposed Plan for a site recommends one alternative to address contaminated soils and another to remediate the ground water from among several sets of alternatives. The lead agency chooses to retain the Preferred Alternative for the ground-water component of the remedy, but selects a different soil remediation alternative from among those presented as acceptable options in the Proposed Plan.

Significant Changes That Could Not Be Reasonably Anticipated

- Low temperature thermal desorption, which was NOT presented in the Proposed Plan or the detailed analysis section of the FS, is the preferred remedy for the site, because new information was received indicating that low temperature thermal desorption could be used effectively at the site. This new remedy, however, is quite different in scope and performance from any other alternative considered in detail in either the Proposed Plan or RI/FS Report. Because the public has not had an adequate opportunity to comment on the technical, environmental, and human health aspects of the remedy or to evaluate and compare its performance in terms of the nine evaluation criteria, a revised Proposed Plan must be prepared and a new public comment period should be held on the new recommended remedy before a remedy is selected in the ROD.