



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP - 8 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Pre-Remedial Activities at Federal Facilities

FROM: Gene A. Lucero, Director *Gene A. Lucero*
Office of Waste Programs Enforcement

Henry Longest, Director *Walter W. Karalich*
Office of Emergency and Remedial Response *for*

TO: Addressees

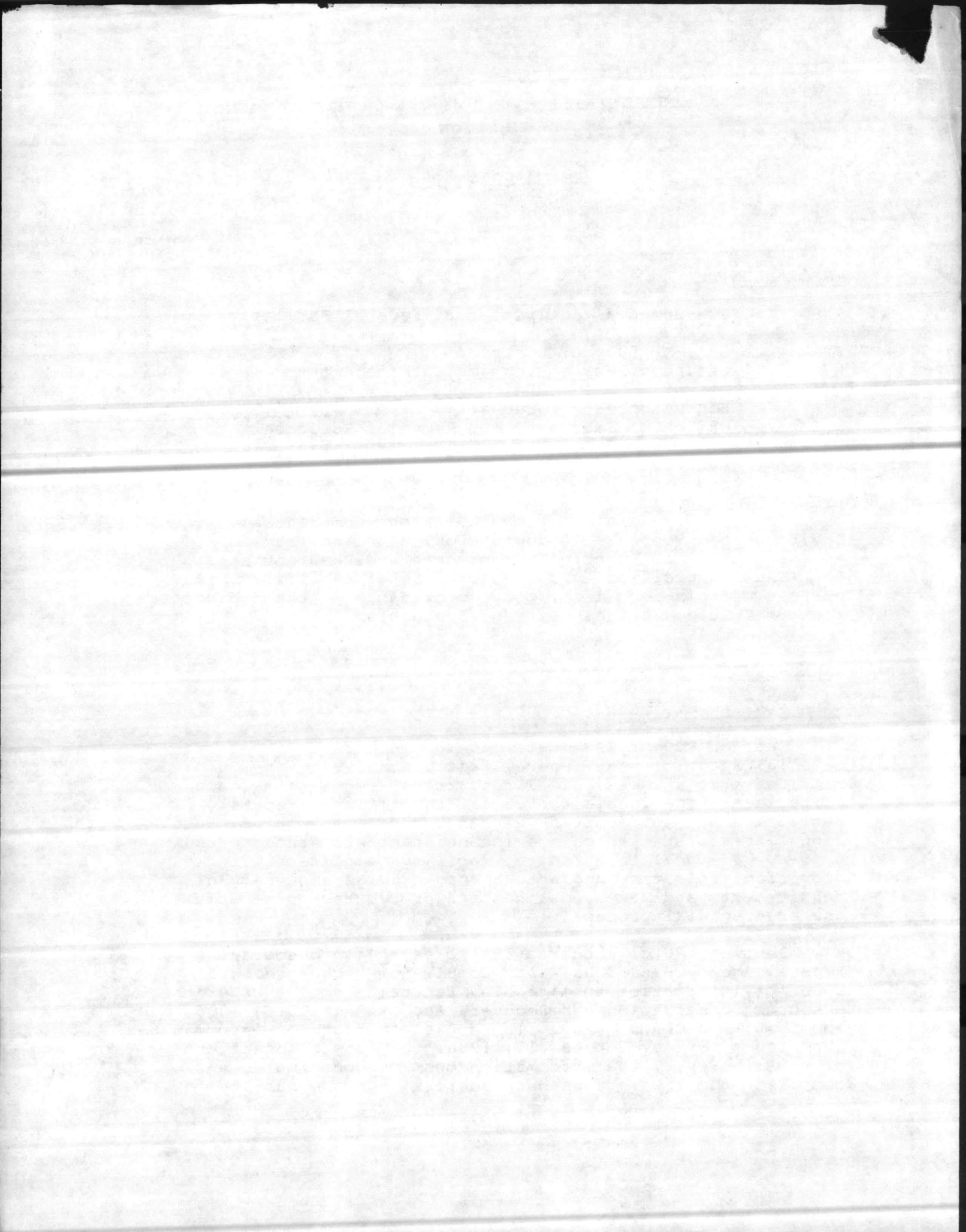
As you are aware, Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), specifically addresses Federal facilities. The purpose of this memo is to provide guidance on the implementation of §120(d), "Assessment and Evaluation."

BACKGROUND

SARA Pre-Remedial Requirements

Section 120 of SARA sets out the requirements for pre-remedial activities at Federal facilities. Section 120(a)(2) provides that all EPA guidelines, rules, regulations, and criteria are applicable to Federal facilities. Federal facilities may not adopt or use any guidelines, rules, regulations, or criteria which are inconsistent with those established by EPA. To facilitate Federal facility compliance with this provision, this memo and attachments provide a summary of requirements and EPA guidelines and procedures applicable to the pre-remedial process.

Section 120(c) requires EPA to establish a special Federal Agency Hazardous Waste Compliance Docket (docket) based on information submitted by Federal agencies under the Resource Conservation and Recovery Act (RCRA) §3016, 3005, and 3010, and CERCLA §103. The docket consists of information reported to EPA by October 17, 1986, the date of enactment of SARA; however, the information must be coordinated and compiled from the various data sources into one quality



assured/quality controlled list. We anticipate publication of the docket in the Federal Register in late fall. The docket will be available to the public and will be updated every six months. All facilities in the docket are subject to the deadlines for assessment and evaluation found in §120(d).

Section 120(d) requires EPA, within 18 months of the date of enactment (April 1988), to "take steps to assure that a preliminary assessment (PA) is conducted for each facility on the docket." While EPA has the responsibility to assure a PA is conducted, Executive Order 12580, dated January 23, 1987, delegates the responsibility for the conduct of the assessment to the Federal agencies.

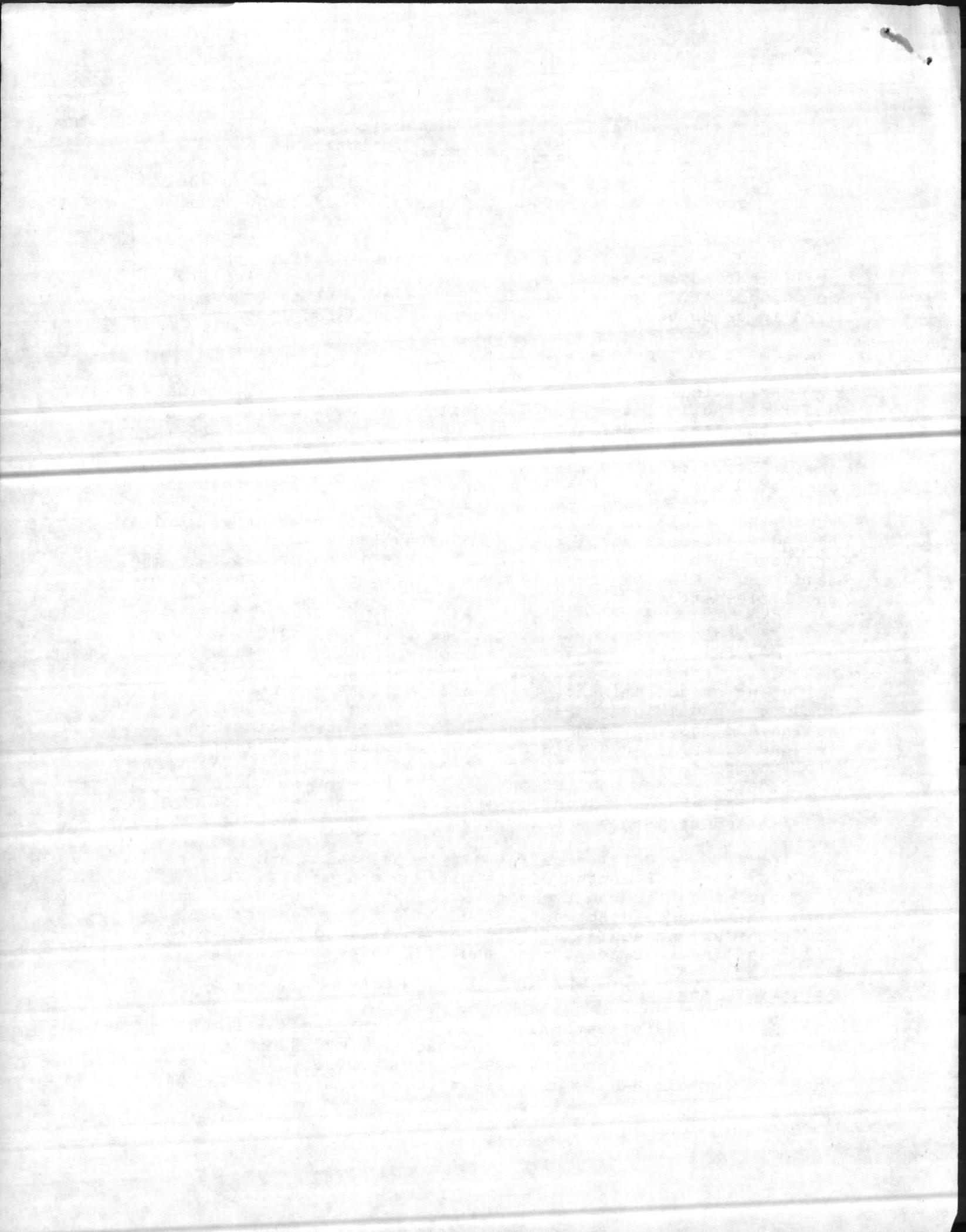
Following the PA, EPA shall, where appropriate, evaluate and list facilities on the National Priorities List (NPL) using the same criteria that are applied to other facilities; i.e., the Hazard Ranking System (HRS). The statute states that, "Evaluation and listing under this subsection shall be completed not later than 30 months after such date of enactment," or April 1989. Section 120(d) also provides that, "Upon the receipt of a petition from the Governor of any State, the Administrator shall make such an evaluation of any facility included in the docket." Beyond this petition provision, SARA mandates at §120(f) State involvement generally in the Federal facilities effort.

In addition to the PA requirement in §120, §105(d) provides that "any person who is, or may be, affected by a release or threatened release of a hazardous substance or pollutant or contaminant, may petition the President to conduct a preliminary assessment of the hazards to public health and the environment which are associated with such release or threatened release." E.O. 12580 delegates responsibility to respond to a PA petition to the Federal agencies. The Federal agency has 12 months after receipt of the petition to complete the assessment or provide an explanation of why the assessment is not appropriate.

Finally, §105(c) requires EPA to propose amendments to the HRS within 18 months of the date of enactment. The effective date for the amendments is not later than 24 months after the date of enactment. The manner in which the HRS revisions and schedules affects our ability to address the §120 deadlines for assessment and evaluation is discussed below.

Ability to Meet SARA

Section 120(d) establishes a 30 month deadline for EPA evaluation and listing of Federal facilities. Section 105(c) requires that EPA amend the HRS by April 1988. SARA also states that the current HRS is not effective after October 17, 1988.



The timing of the HRS revisions significantly impacts our ability to meet the §120(d) deadline for listing facilities on the NPL. The current HRS cannot be used after October 17, 1988, and all sites proposed under the current HRS must go final under the current HRS. Therefore, sites proposed under the current HRS must be listed in final on the NPL by October 17, 1988. Usually, this would require an October proposal to allow time for the normal rulemaking process (approximately one year). While this timeframe is the case for non-Federal facilities, EPA's short-term strategy is to publish a separate proposed rule for Federal facility sites in the second quarter of FY88 (See "Pre-Remedial Schedule" in Attachment A). This short-term strategy is an effort to maximize compliance with deadlines for evaluation and listing and accommodate the schedule for revisions to the HRS.

It is important to note that facilities not included in this Federal facility second quarter proposed rule are subject to evaluation under the new HRS which is anticipated to require additional data. Any proposal under the new HRS cannot occur until after the effective date of the new HRS (October 1988). Therefore, rulemaking under the new HRS would be beyond the 30 month deadline set forth in the statute. The process for facilities to be evaluated under the new HRS is addressed in the long-term strategy.

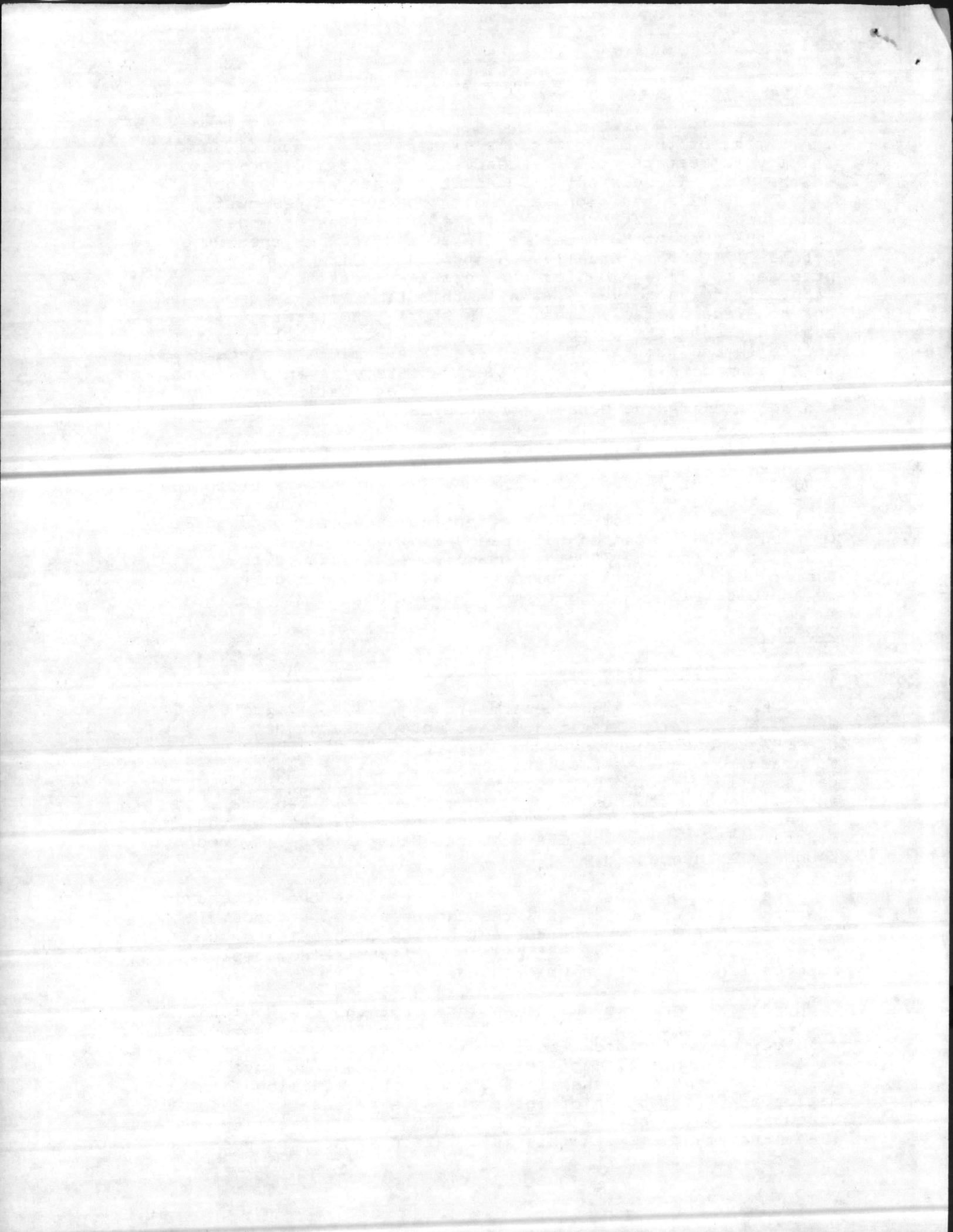
STRATEGY

Short-Term Strategy: Listing Under the Current HRS

The goal of the short-term strategy is to evaluate and, where appropriate, list facilities under the current HRS for the FF proposal in the second quarter of FY 88. This effort to evaluate and list facilities will involve evaluating pre-remedial information previously submitted by Federal agencies as well as new reports not yet submitted. All reports must be received by October 15, 1987 and should be sent by the Federal agencies to the EPA Regional Federal facility contacts found in Attachment B.

Federal agencies can help EPA streamline the process so that the maximum number of sites can be scored, proposed, and promulgated under the current HRS by 1) providing one point of contact for each facility, 2) submitting complete reports, and 3) setting priorities.

Federal agencies should be sure that the EPA Regional office knows the name and telephone number of the appropriate contact person for each facility in the docket. While this is a simple concept, it is extremely important to have a designated contact person in the event that additional information or verification of information is necessary. Federal agencies should provide the EPA CERCLA Federal facility contact (See Attachment B) with this information as soon as possible.



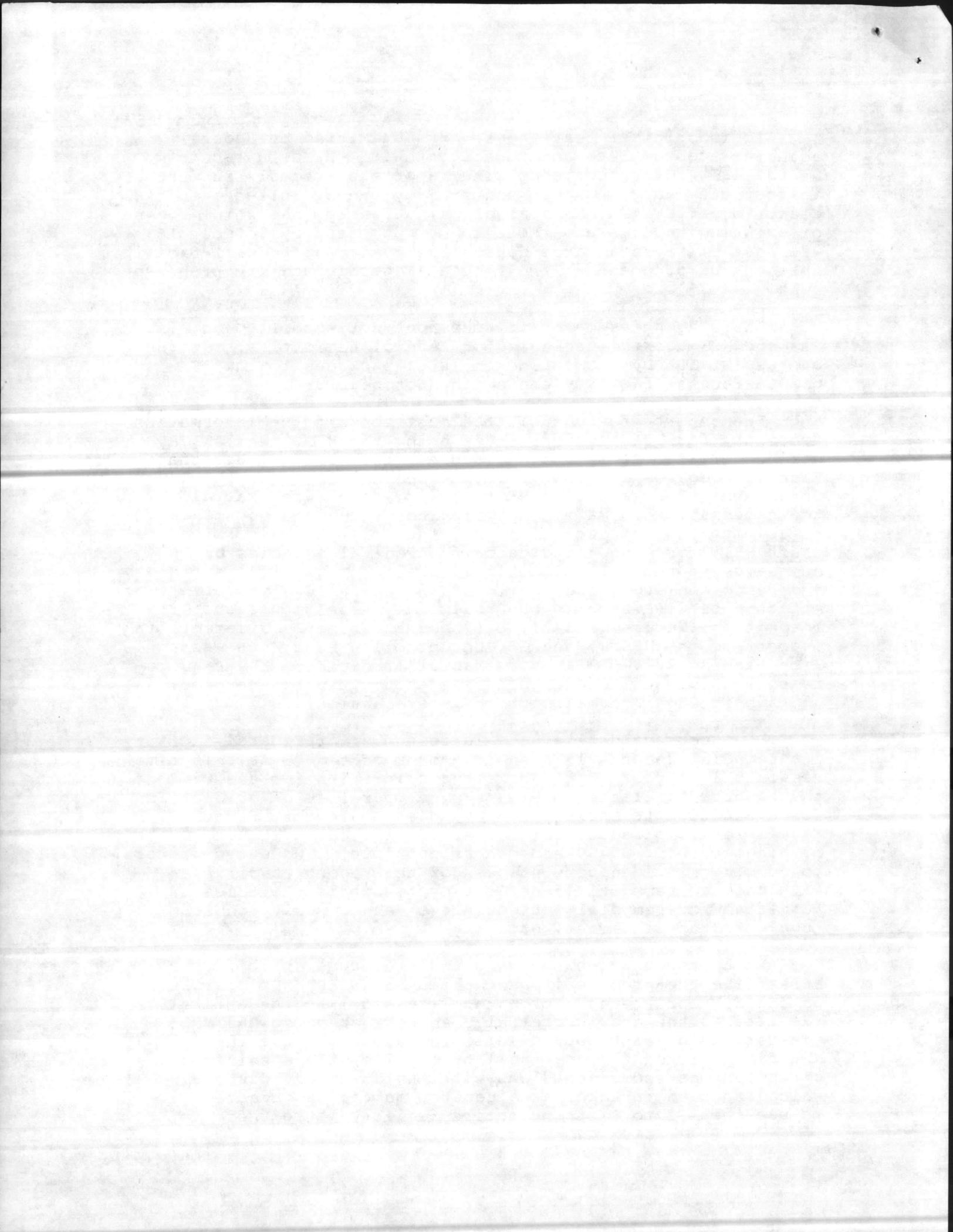
It is critical that the reports submitted by Federal agencies are complete and consistent with the data requirements of the HRS. Our experience with reports previously submitted is that they vary in scope and quality and are often insufficient to perform an HRS evaluation. Clearly, the completeness of existing reports and those to be submitted by October 15, 1987 will determine to a large degree the number of Federal facilities that can be proposed in the special Federal facility proposed rule.

State agencies may have done, but not submitted to EPA, PAs and HRS scoring packages for Federal facilities. States can assist EPA by submitting any such packages to the EPA CERCLA Federal facility contact by October 15, 1987.

The reports to be submitted must contain the information necessary for EPA to score sites using the HRS. While EPA will determine the actual HRS score, it is recommended that Federal agencies develop draft HRS scores, or index the reports in a manner to facilitate HRS scoring, to ensure that all of the necessary information has been collected and documented. It is important to recognize that the sole purpose of the draft HRS score is an indicator for Federal agencies of adequate information collection; EPA maintains full authority and responsibility for determining the actual HRS score. Attachments C ("Guidance on Preliminary Assessments and Site Inspections Under CERCLA"), D ("Documentation Requirements in Support of the HRS"), and E ("Uncontrolled Hazardous Waste Site Ranking System - A Users Manual"), describe the requirements and formats Federal agencies should use for developing and submitting information for HRS evaluation.

EPA must evaluate a very large number of Federal facility pre-remedial reports in a short amount of time. At this time we would like your input as we set priorities for evaluating the reports/facilities. Please send your list of priorities for evaluation to Christopher Grundler, Director, Federal Facilities Compliance Task Force, WH-527, 401 M Street, S.W., Washington, D.C. 20460 as soon as possible. Suggested factors to consider include completeness of the report, facilities with ongoing remedial investigation/feasibility studies or targeted for remedial actions, level of community concern, level of State interest, etc.

An approach which has been under discussion to further streamline the process is whether to do an HRS/NPL evaluation on one appropriate area of a facility and list the entire facility if the area scores high enough; or to do HRS/NPL evaluations on each appropriate area and thus have multiple NPL sites listed for one facility. While site-specific circumstances and discussions with the State may dictate which approach to take, as a general matter we have decided to use the NPL to list the entire facility where there is



at least one NPL-eligible site at the facility. Following the NPL listing, and separate from the NPL process, EPA and the State will then work with the facility to design a comprehensive strategy which would address both RCRA and CERCLA requirements at the facility. As stated in the proposed EPA Federal facility listing policy (52 FR 17991, May 13, 1987), NPL listing in no way preempts applicable RCRA requirements.

Process

We intend to use the Technical Enforcement Support (TES) contract for the evaluation and scoring of Federal facility reports currently in the pipeline and those received by October 15, 1987. The work will be initiated in the Regions. We will forward a memo explaining how to access and initiate tasks under the TES contract. TES has been trained by the pre-remedial program contractors familiar with the HRS and the evaluation of Federal facilities.

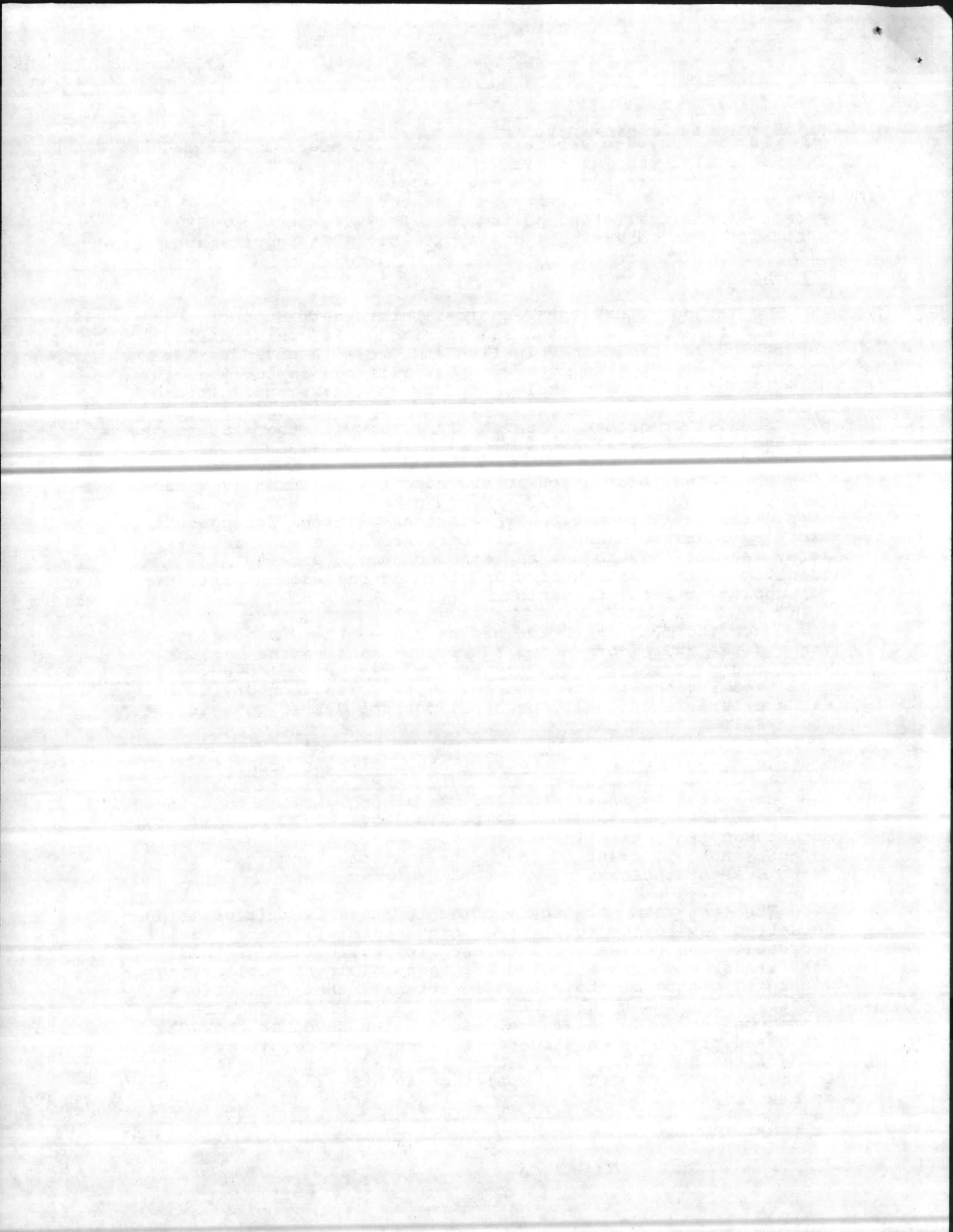
Where the information in the reports is minimally inadequate for scoring purposes, the EPA contractor will attempt to supplement the information by telephone with the designated facility contact. However, if there are major gaps in available data, we will have to use the time consuming process of identifying the inadequacies and the Federal agency will have to supplement the information.

Once the EPA contractor has completed the HRS scoring, those sites that score above 25 will be sent to the Regional NPL Coordinators for a quality control review, followed by quality assurance in the Hazardous Site Evaluation Division in Headquarters, and finally proposal for the NPL if the score is above 28.5.

Long-term Strategy and Process: Future Listing Under the New HRS

Consistent with §120(a)(2), EPA strongly recommends that all Federal agencies adopt EPA terminology; e.g., Preliminary Assessment (PA), Site Inspection (SI), etc. The Department of Defense and Department of Energy have already committed to using EPA terminology.

The long-term strategy applies to those facilities in the docket not evaluated for/listing on the special Federal facility proposal. The new HRS will be used for evaluation of these facilities. Federal agencies are responsible for collecting, within 18 months of the date of enactment, the information necessary for EPA to determine which facilities should be listed on the NPL. Determinations for inclusion on the NPL are based primarily on a score developed as a result of application of the HRS. The information required by the National Contingency Plan (NCP) for applying the HRS is equivalent to an EPA PA and SI.



Federal agencies should conduct a PA on these facilities consistent with SARA and the NCP. Federal agencies should notify the State of PAs to be initiated in the State pursuant to §121(f). If the Federal agency determines that no further action is required, the PA report should be submitted to the EPA CERCLA Federal Facilities Contact (see Attachment B) and to the State. EPA will review the report and concur or nonconcur with the Federal agency determination that no further action is required pursuant to the authority in §120(d) that EPA assure that a PA is conducted. The State will have the opportunity to review and comment on the PA pursuant to Section 121(f). If EPA agrees with the no further action determination, this information will be entered into the docket. If EPA does not agree, EPA will notify the Federal agency that more information is needed for the required evaluation.

If, based on the PA, the Federal agency determines an SI is necessary, the Federal agency should perform an SI on the facility consistent with SARA and the NCP by April 1988 and submit the PA/SI report to the EPA CERCLA FF Contact and to the State. Federal agencies should notify the State of SIs to be initiated in the State.

The PA/SI report must contain the information necessary for EPA to score sites using the HRS. Again, EPA recommends that Federal agencies develop draft HRS scores to ensure that all of the necessary information has been collected and documented. Guidance on use of the new HRS will be developed and training for Federal agencies will be provided.

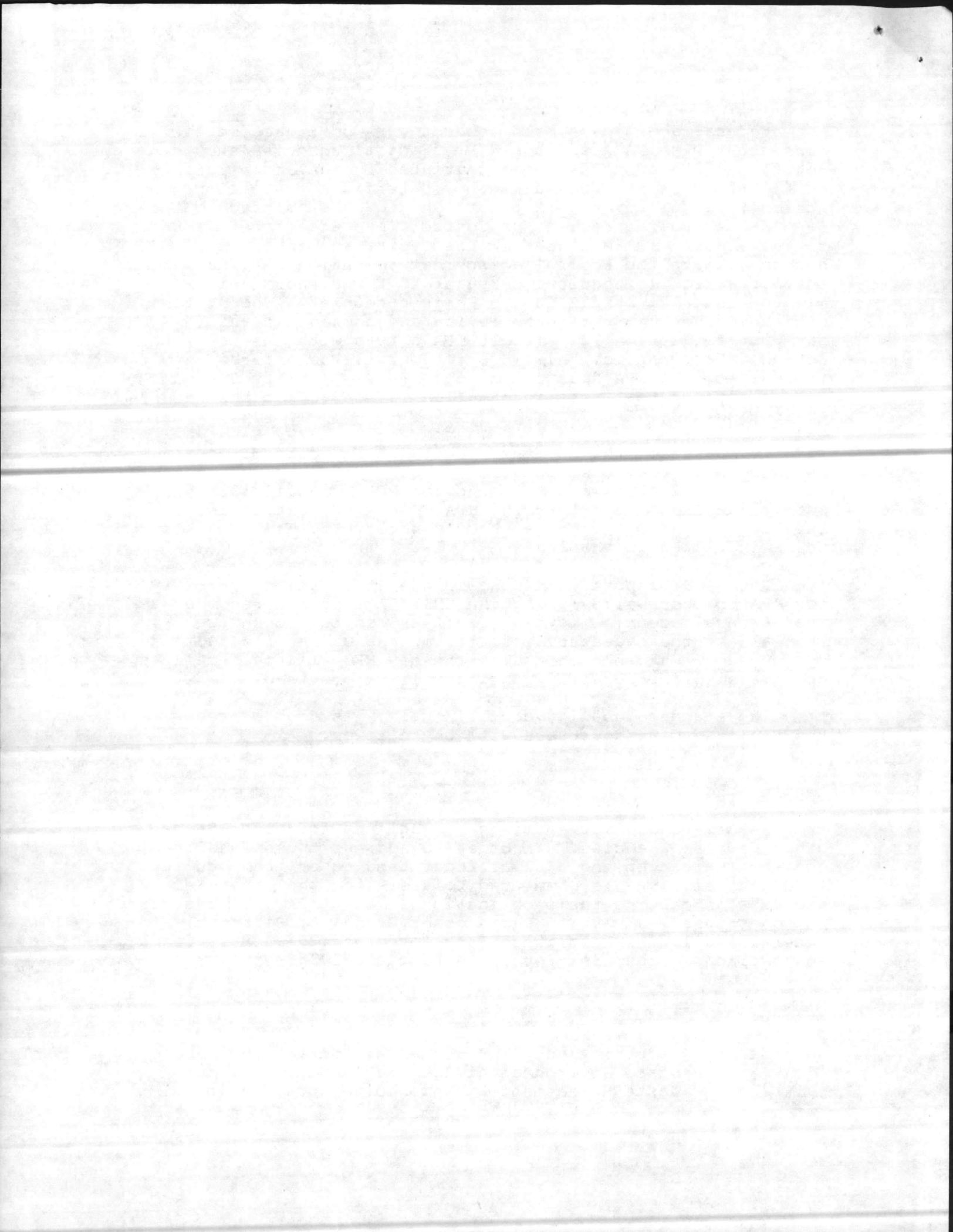
The standard quality control/quality assurance process in the Region and Headquarters will be followed.

Conclusion

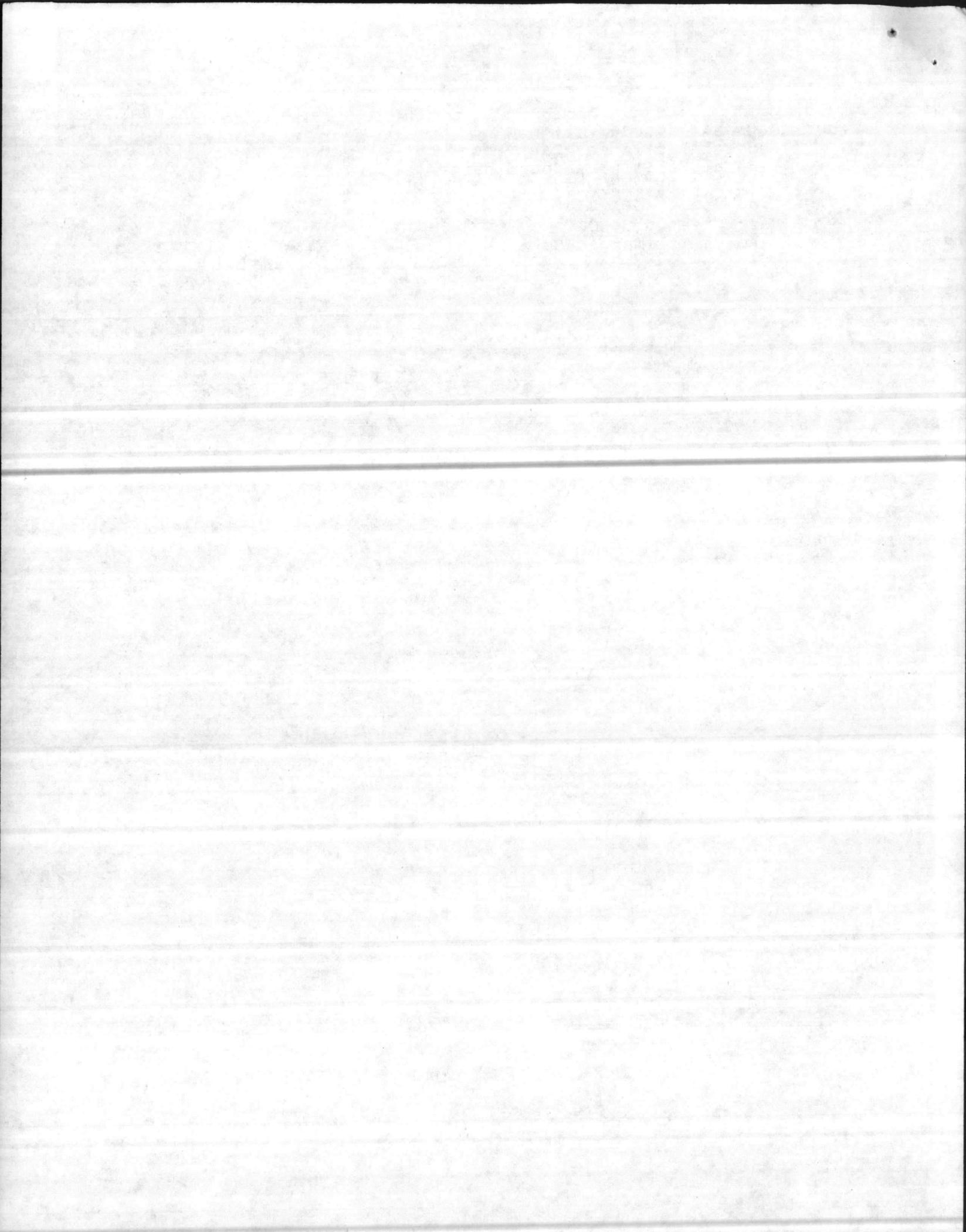
SARA sets out very stringent deadlines for both EPA and other Federal agencies. In order to address these deadlines, good communication and a clear understanding of the requirements is essential. EPA is committed to assisting the other Federal agencies in meeting their obligations under SARA. Please direct any questions you have to Christopher Grundler, Director, Federal Facilities Compliance Task Force at 475-8800 or Linda Southerland of the Task Force staff at 382-2035.

Attachments

Addressees: Federal Agency Environmental Contacts
State Environmental Agencies
Waste Management Division Directors, Regions I-X



cc: Regional Counsel, Regions I-X
Federal Facilities Task Force
Federal Facilities Coordinators, Regions I-X
Marcia Williams, OSW
Lee Herwig, OFA
Mark Greenwood, OGC
Carolyn Tillman, OECM



ATTACHMENT A

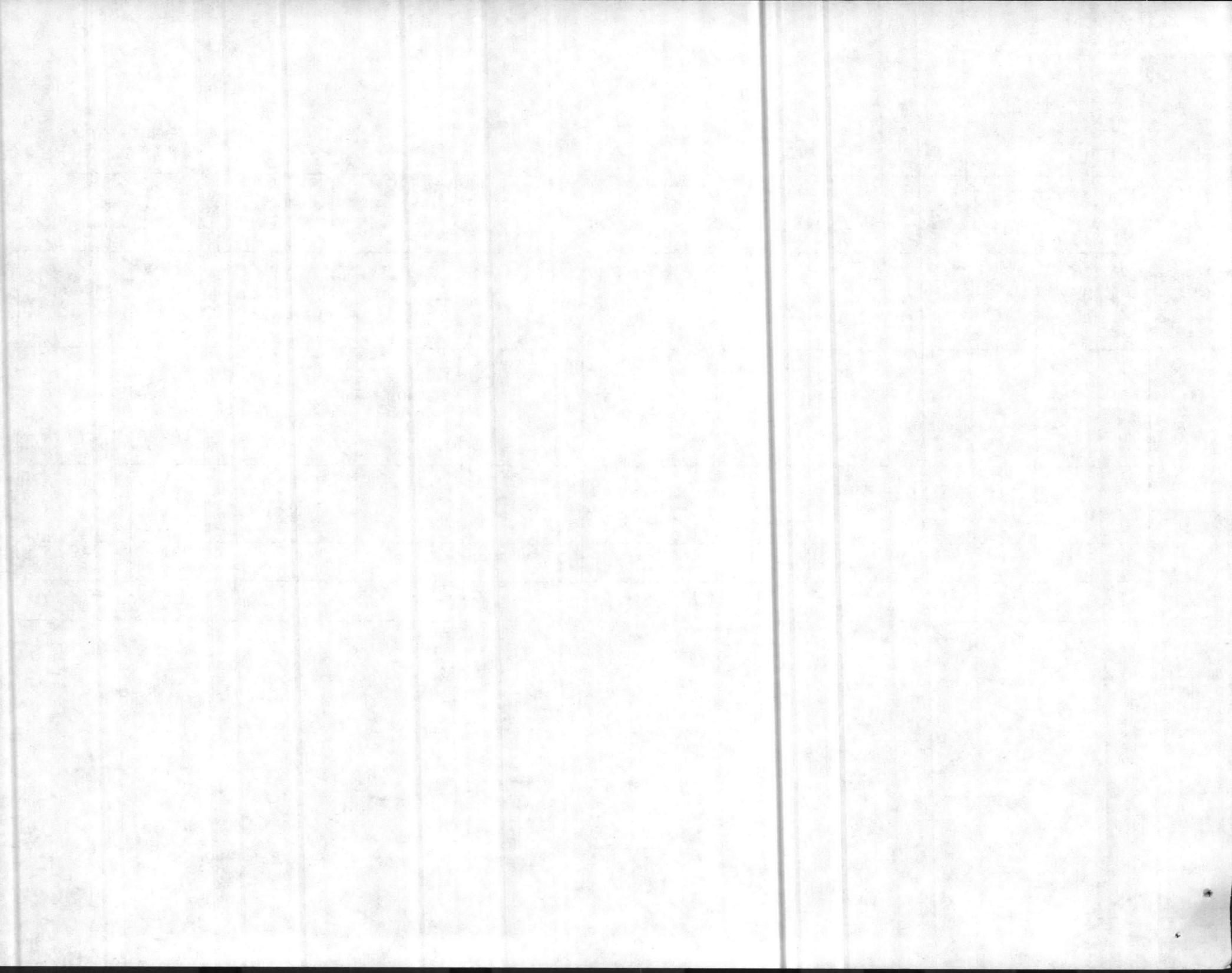
PRE-REMEDIAL SCHEDULE

FY '87		FY '88				FY '89			
3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
	Proposed HRS				Final HRS				
	deadline for FF PA/SI submittal		Federal Proposal		Federal Final				
		Gather	New HRS data				Proposal (New HRS)		Final (New HRS)

SARA SCHEDULE

PA Deadline
(18 months of date of
enactment = April '88)

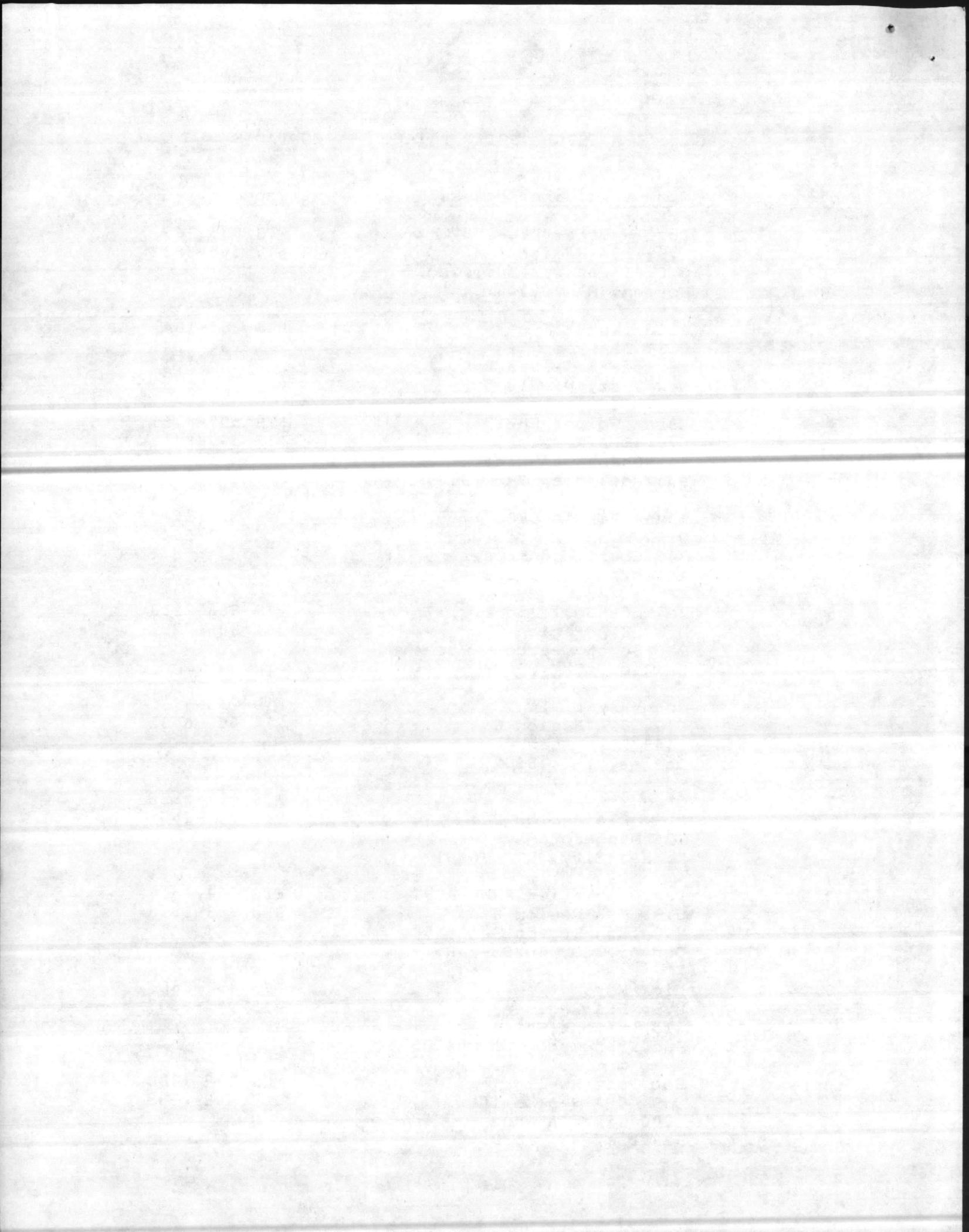
SCORE, PROPOSE, FINAL
(30 months of date of
enactment = April '89)



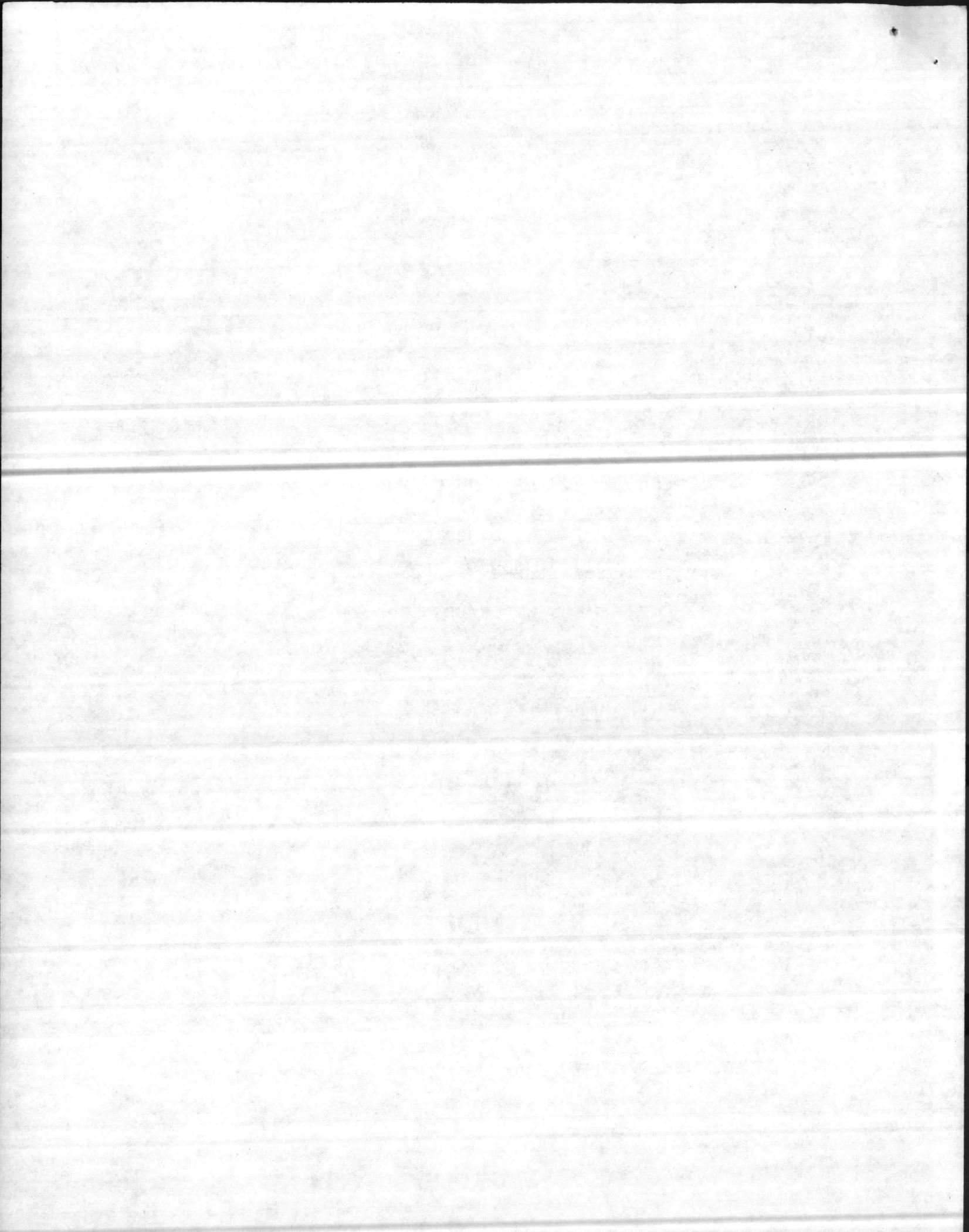
ATTACHMENT B

EPA CERCLA FEDERAL FACILITY CONTACTS

<u>Region</u>	<u>Name & Mailing Address</u>	<u>Phone</u>
1	Dave Webster HEC-1907 U.S. EPA Region 1 J.F.K. Federal Building Boston, MA 02203	FTS 835-3632 617 565-3632
2	Alida Karas U.S. EPA Room 747 26 Federal Plaza New York, NY 10278	FTS 264-1841 212 264-1841
3	Karen Wolper 3HW17 U.S. EPA Region 3 841 Chestnut Street Philadelphia, PA 19107	FTS 597-8751 215 597-8751
4	Wayne Mathis ERRB U.S. EPA SF Program 345 Courtland Street Atlanta, GA 30365	FTS 257-2643 404 347-2643
5	Melinda Gould 5H-12 U.S. EPA Region 5 230 South Dearborn Street Chicago, IL 60604	FTS 886-7253 312 886-7253
6	John Meyer U.S. EPA Region 6 1445 Ross Avenue Dallas, TX 75202	FTS 255-6730 214 655-6730
7	Greg McCabe U.S. EPA Region 7 726 Minnesota Avenue Kansas City, KS 66101	FTS 757-2856 913 236-2856
8	David Schaller 8HWM-SR U.S. EPA Region 8 999 18th Street Suite 500 Denver, CO 80202-2405	FTS 564-1518 303 293-1518
9	Nick Morgan U.S. EPA Region 9 P-5 215 Fremont Street San Francisco, CA 94105	FTS 454-8603 415 974-8603
10	Bob Poss HW-114 U.S. EPA Region 10 1200 Sixth Avenue Seattle, WA 98101	FTS 399-1388 206 442-1388

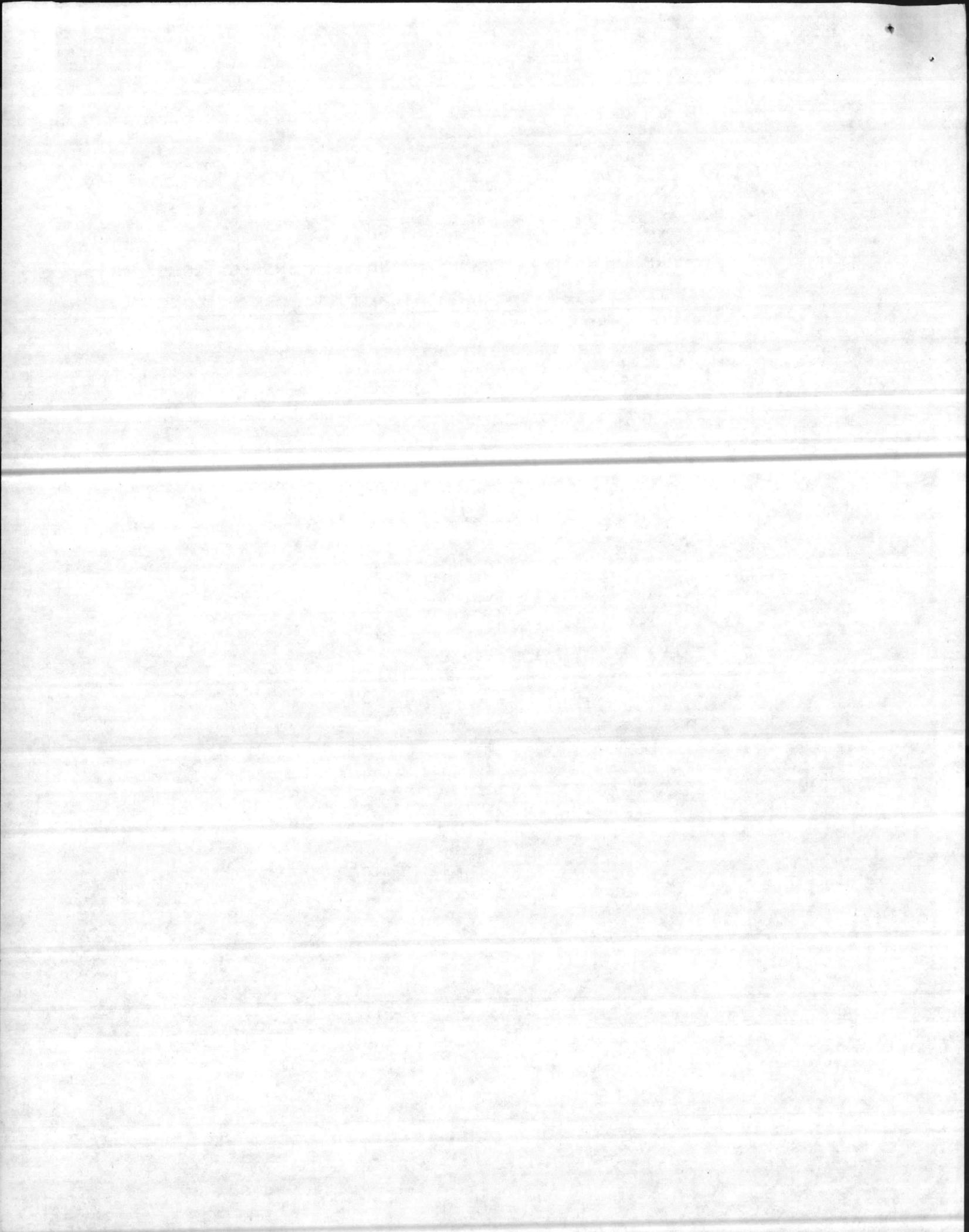


ATTACHMENT C
GUIDANCE ON
PRELIMINARY ASSESSMENTS AND SITE INSPECTIONS
UNDER CERCLA



GUIDANCE ON
PRELIMINARY ASSESSMENTS AND SITE INSPECTIONS
UNDER CERCLA

DRAFT



INTRODUCTION

The purpose of this guidance is to describe in detail the goals, scope, and documentation requirements for preliminary assessments (PA's) and site inspections (SI's) conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This guidance establishes what, at minimum, a PA and an SI should accomplish. This guidance is for use by EPA, its field contractors, Federal agencies, and States in planning for and preparing PA's and SI's.

EPA has developed a deliberate and structured process to determine what, if any, cleanup actions should be taken at uncontrolled hazardous waste sites. The entire site evaluation process consists of two major phases: the first phase leads up to proposing sites for the National Priorities List (NPL) which then leads to remedial action. This "pre-remedial phase" consists of three major activities--discovery, preliminary assessment, and site inspection. The second or "post-NPL" phase involves evaluating a site in greater detail to identify the precise magnitude and extent of contamination and the most cost effective alternative to correcting problems at the site. This second phase is known more formally as the Remedial Planning Phase and includes two activities--a remedial investigation (RI) and a feasibility study (FS). Figure 1 graphically depicts this flow of activities.

The goal of the pre-remedial phase applies to both the PA and the SI and involves:

- 1) gaining a better and more rounded understanding of the nature of the threat posed by a site;
- 2) if the site does pose a threat, developing data to correctly score the site using the Hazard Ranking System (HRS);
- 3) identifying sites that require immediate response.

The PA and SI are limited to determining if the site ever handled hazardous substances and if they have released or have the potential to release into the environment. The PA or SI is not intended to determine the exact magnitude of the release, if the size of the release is significant, or if its potential to adversely affect the environment is significant. These decisions are made, in a simplified fashion, when the site is scored under the HRS and, more comprehensively, during the remedial investigation.

This guidance is divided into two main chapters--Chapter 1 the PA and Chapter 2 the SI.

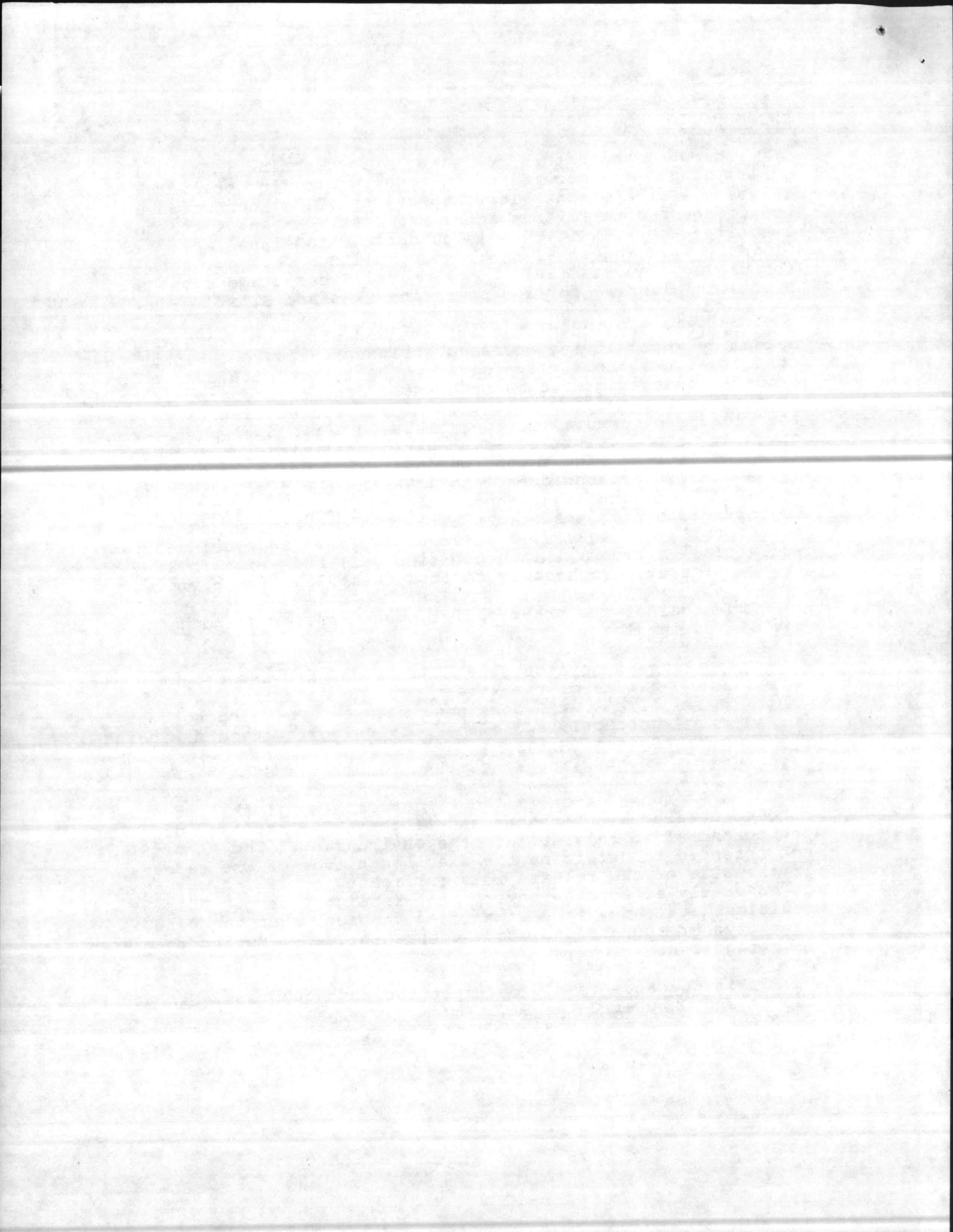
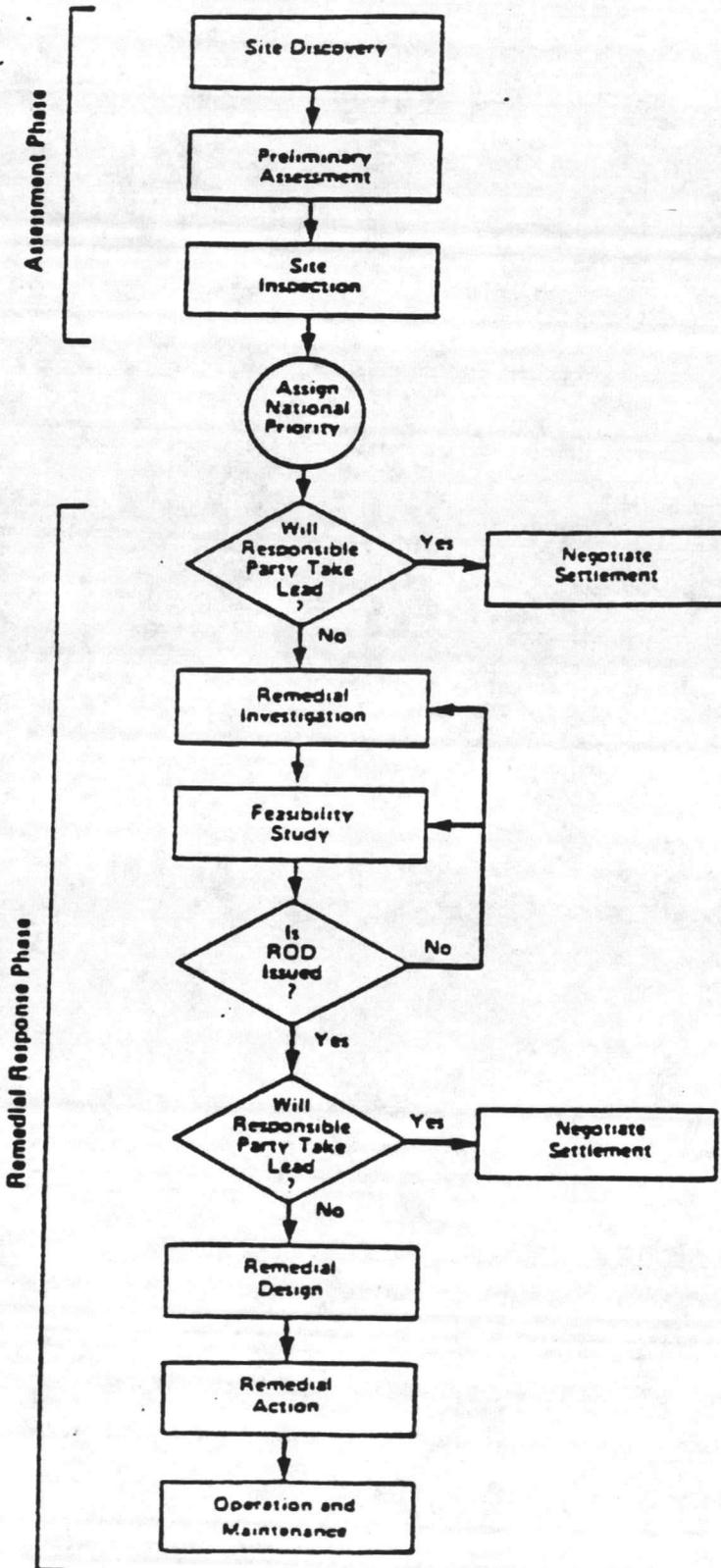
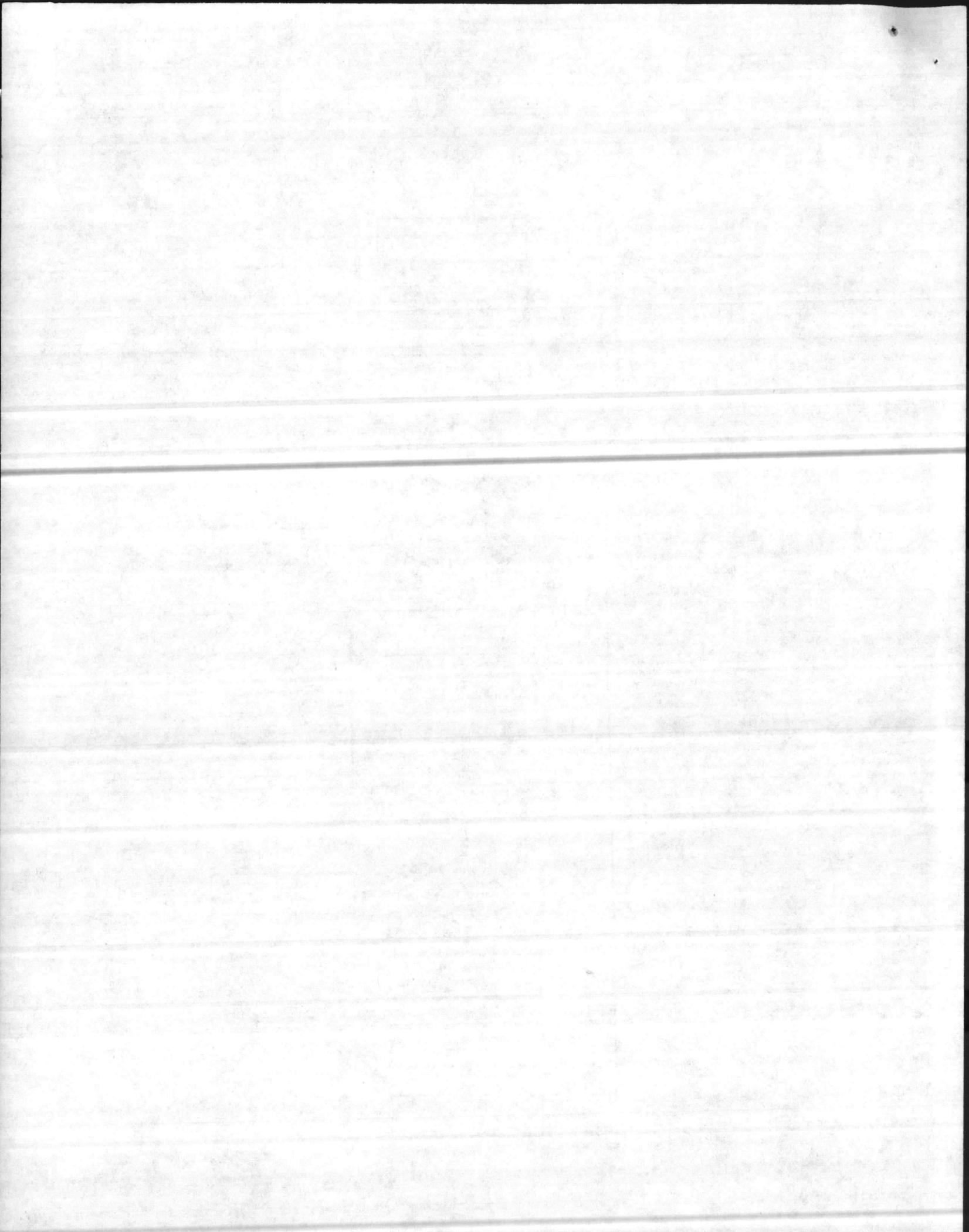


FIGURE 1





CHAPTER I -- PRELIMINARY ASSESSMENTS

A. GOALS OF A PRELIMINARY ASSESSMENT

The PA is the first phase in the process of determining if a site is releasing hazardous substances, pollutants or contaminants into the environment and requires response action. During a PA the investigator compiles and evaluates available information about a site and its surrounding environment. The PA culminates in a report with formal recommendations. The PA has four specific goals which are discussed below.

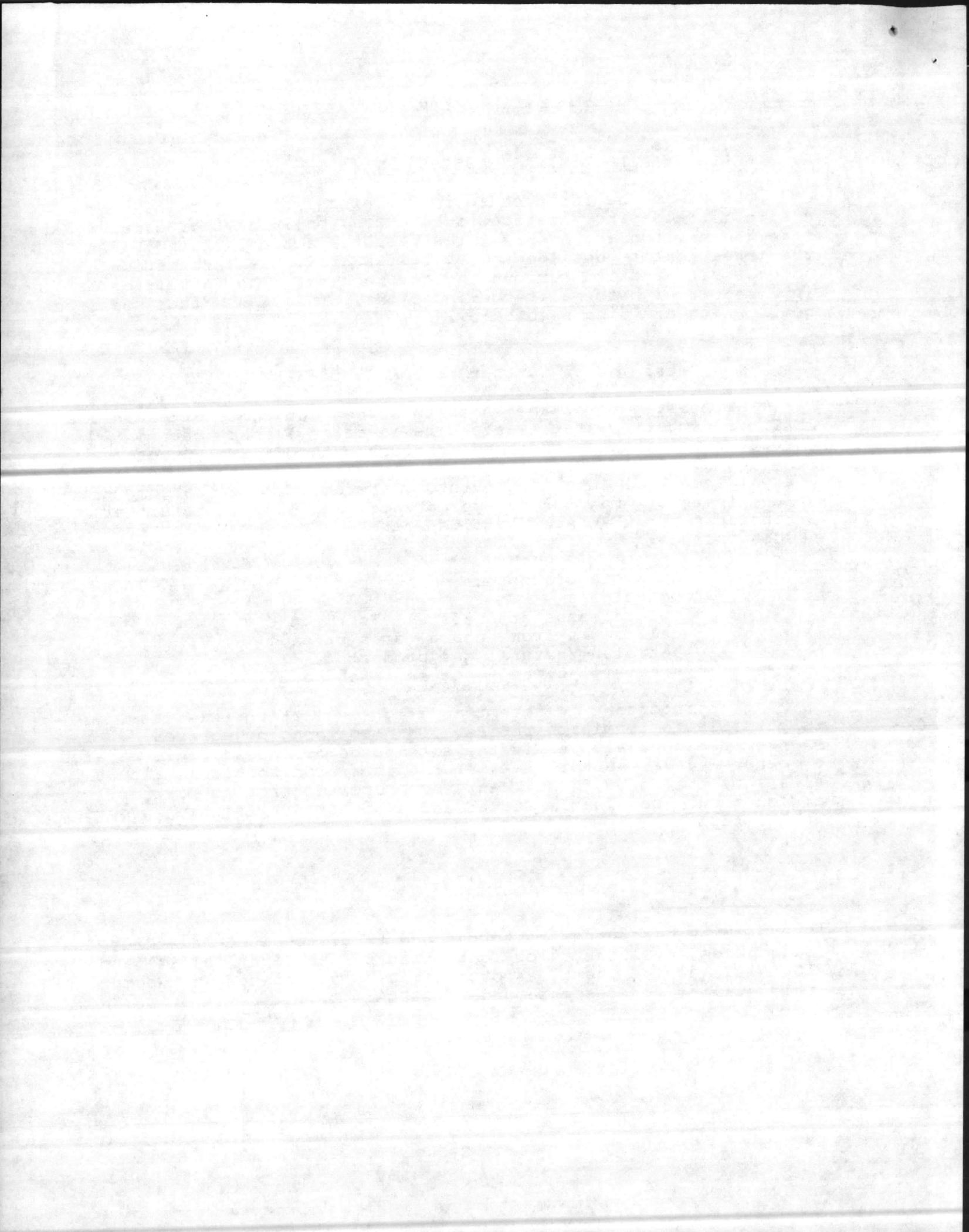
1. Determine if further action is required.

The first goal of the PA is to screen out those sites in the CERCLA inventory system (waste site inventory) that pose no threat or that can be addressed through other Federal programs. In many cases, little prescreening of sites has occurred prior to their entry (discovery) into the inventory system. Therefore some sites in the inventory may not be appropriate candidates for further attention under CERCLA. Examples where no further action is needed include:

- no waste of concern
- no release
- all releases are Federally permitted
- release is from natural or synthetic petroleum/natural gas products
- site will clearly not score above 28.5 on the HRS

It is important to note that after evaluating this item, it is possible to terminate the PA. The remaining objectives of the PA need not be evaluated if the site poses no threat or is covered by other Federal authorities. For this reason this goal should always be evaluated first. Any recommendation for no further action should be clearly stated and a sound justification provided in the report.

¹CERCLA provides authority to respond to releases of hazardous substances, pollutants, or contaminants. Sections 101(14) and 104(a)(2) define the types of materials, substances, and compounds that qualify for response under CERCLA.



2. Compile existing information to support development of a valid HRS score.

Upon determining that further action is appropriate, the second goal is to collect data to support HRS scoring. Short of going into the field to collect samples, all data to support HRS scoring that can be collected during the PA should be gathered at this stage. This process must begin at the PA stage. It helps the investigator not only understand the magnitude, extent, and potentially affected populations and environment but it also guides the investigator in more effectively designing the SI. It is unlikely that during the PA, all the data needed to effectively evaluate a site using the HRS will be available. The PA then will help the investigator identify data gaps which become the focus of the SI. The specific data needed to support HRS scoring are discussed in Section C.

3. Identify sites that require immediate response.

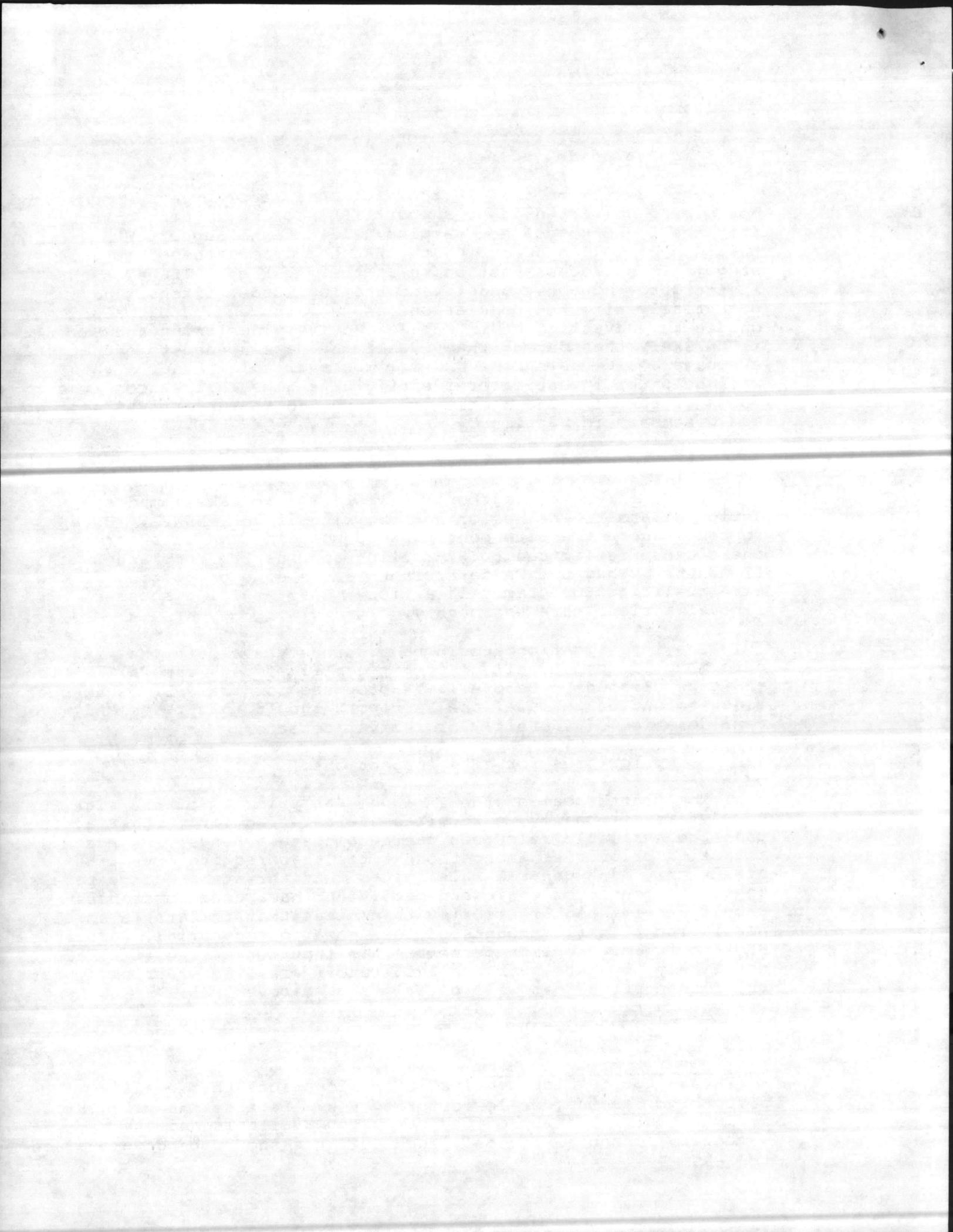
CERCLA "removal" authority allows EPA to take immediate action at a site whether or not the site is on the NPL. Except in cases where the site continues to pose an immediate threat, the cleanup is limited to \$2 million and must be completed within 12 months. Thus the PA determines if the site or portion of the site qualifies for "removal" action. Chapter III discusses removal actions more thoroughly.

The investigation should be rigorously evaluate the site to determine if some or all of it may qualify for a "removal" action and thus cleaned up before it is proposed for the NPL. When such a determination is made, the PA report should then recommend consideration of the site for removal actions.

4. Set priorities for site inspections.

The fourth goal of the PA is to set priority of the site for an SI. Traditionally, more sites are referred for further action than the available resources can accommodate. Hence, EPA must establish priorities among those sites that require immediate attention. As a general rule, sites that threaten a large population to large amounts of toxic and persistent hazardous substances should receive higher priority than sites that threaten a small population to small amounts of less hazardous material. A cursory HRS scoring of the site performs this function. Sites that are not likely to score near the 28.5 cutoff are a lower priority for an SI than sites that will clearly score above 28.5. ³

³ EPA has not developed criteria on situations that qualify for high, medium, or low priority SIs. Because the categories are often a function of the resources available and other non-environmental factors, such guidance should be developed on a regional basis.



B. SCOPE OF THE PRELIMINARY ASSESSMENT

Most of the information compiled during the PA will come from existing State, local and Federal records, files, reports such as permit application data, compliance reports as well as other non-site specific information.

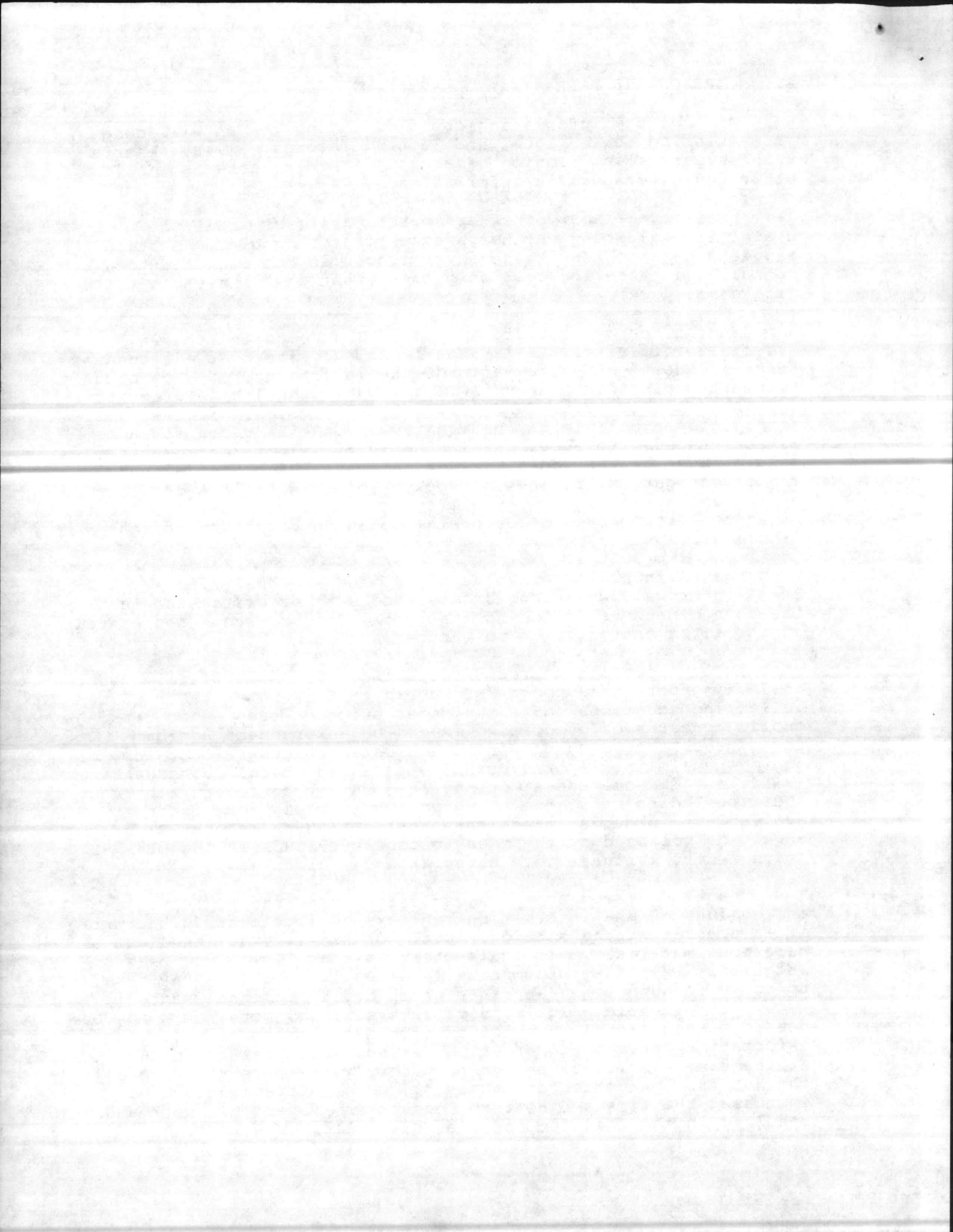
There are a host of other sources available that may be useful in evaluating whether a site poses a problem. Section C suggests some sources. The investigator is not required to consult all these sources, only those that will assist in addressing data gaps.

Many sites may require a reconnaissance during the PA, especially off-site. EPA's experience suggests that a reconnaissance, at least off-site, affords the investigator the opportunity to confirm findings, interview local public health departments and the owner/operator, and review local records. If the site information available is inadequate, an on-site reconnaissance may be needed. However, on-site activity is not recommended as a rule because of the added hazards and cost associated with protecting investigators for on-site work. For example, EPA requires health and safety plans for its contractors. Cases-by-case determinations should be made to determine if an on-site reconnaissance is needed.

The PA should not involve collecting and analyzing samples. The PA narrows down the candidates and sets priorities so that the more expensive field and analytical resources are not wasted at the sites that require no further action.

It is important to reemphasize that the PA is not limited to collecting data to support HRS scoring. Some sites may require collecting additional data for other purposes such as addressing public concerns or supporting impending enforcement action. These needs should be carefully evaluated to ensure that they do not overwhelm the PA or overshadow the need to collect essential HRS data. In some cases, it may be possible to defer gathering the additional data until the RI, when considerably more funds are available. To gather these data at the PA and also the SI stage should be balanced by the need to conserve funds at the pre-NPL stage and to evaluate more sites at a faster rate.

The time needed for a PA can vary considerably. Compiling and evaluating the information can take as little as 20 hours if it is clear that the site does not, nor has it ever, handled hazardous materials. If it is clear that an SI will be needed and little reliable information is accessible, the PA may take up to 40 to 60 hours. In cases where a site reconnaissance is necessary or where a lot of data is available, more hours may be needed. Traditionally, a lot of time has been spent collecting information that was interesting yet not essential to the HRS. At the same time, data needed to properly evaluate the site using the HRS was not collected. This produced inefficiencies that increased the time and cost to conduct PA, SI and NPL work and resulted in the need for considerable follow-up work.



C. CONDUCTING THE PRELIMINARY ASSESSMENT

The information that should be gathered during the PA fits into one of the following categories:

- site management practices
- waste characteristics
- pollutant dispersal pathways
- target populations and environments

See Figure 2 on page 7 for a breakdown of these categories.

Data on all four categories are necessary to develop an understanding of the site, the possible sources and routes for release of contaminants, and the probable affected populations and environments. Although the purpose of the PA is not to assess the degree of risk posed by a site, these data categories are the essential building blocks of the risk assessment that is performed in a simplified fashion through the HRS and in a more comprehensive manner during the RI.

The initial inquiry into the site should determine if the site requires any further action as mentioned in Section A. If it does, it is investigated further. Exhibit 1 on page 8 and 9 contains the core data that must be developed at this time. Other site-specific data may be necessary to understand some unique problems associated with a particular site.

Appendix 1 at the end of this document is a chart which lists data needs and then identifies possible sources for particular pieces of information. Appendix 2 also at the end of this document lists sources of various kinds of information and what specific information each source might provide. (This chart is basically the inverse of chart 1). Appendix 1 will be useful in locating where to get a piece of information. Appendix 2 will help identify routine types of information.

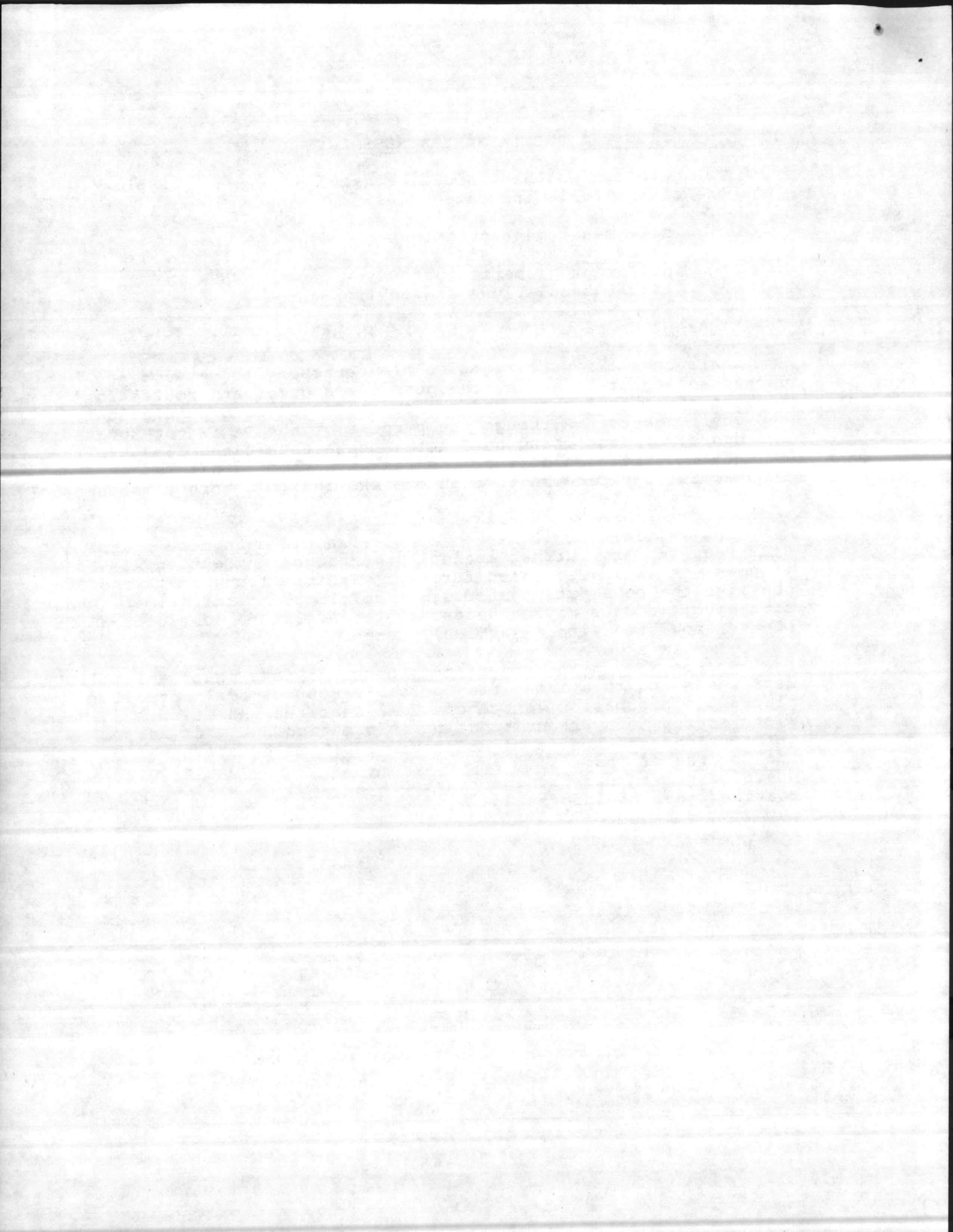
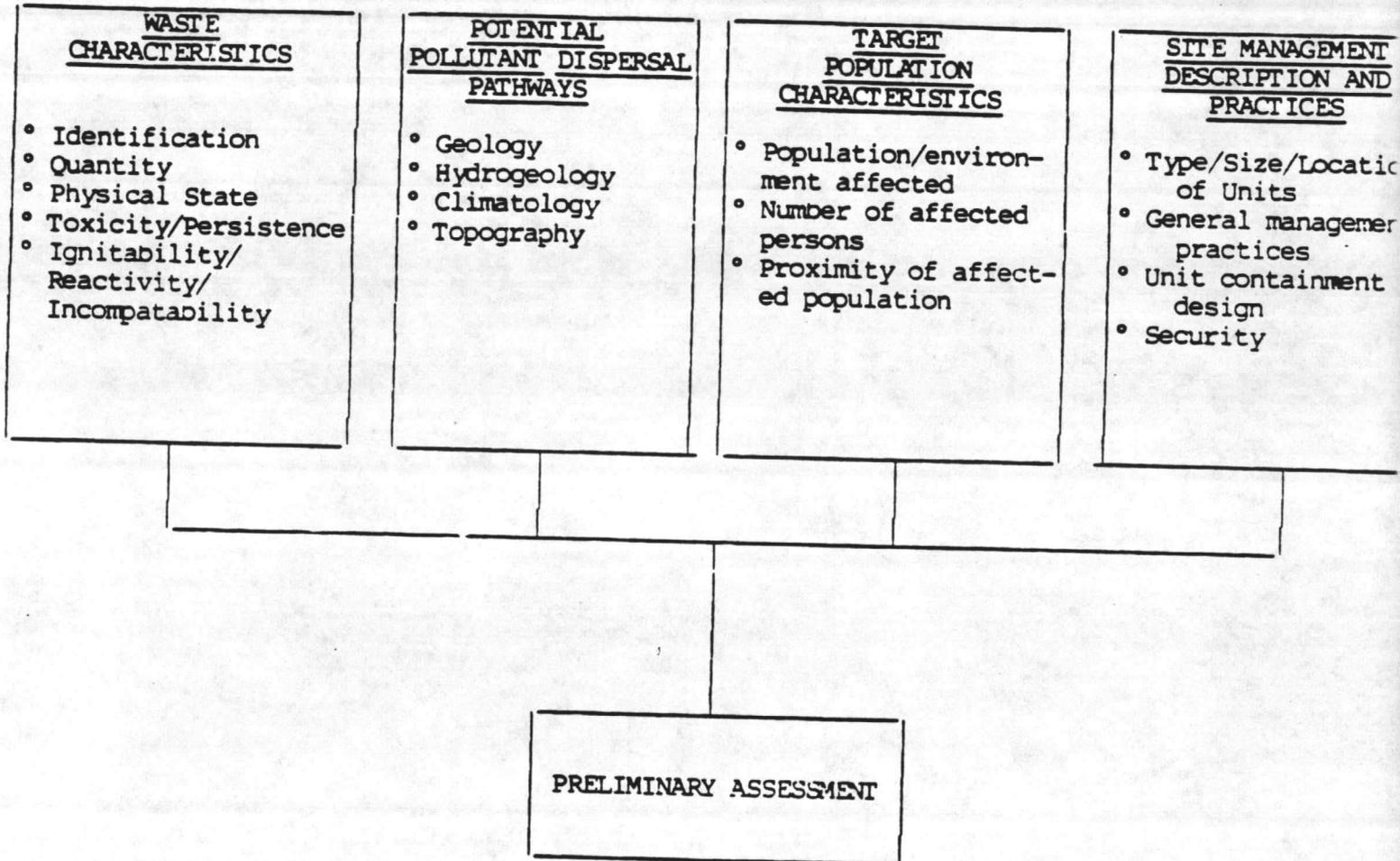


FIGURE 2

GENERIC AREAS OF PRELIMINARY ASSESSMENT DATA



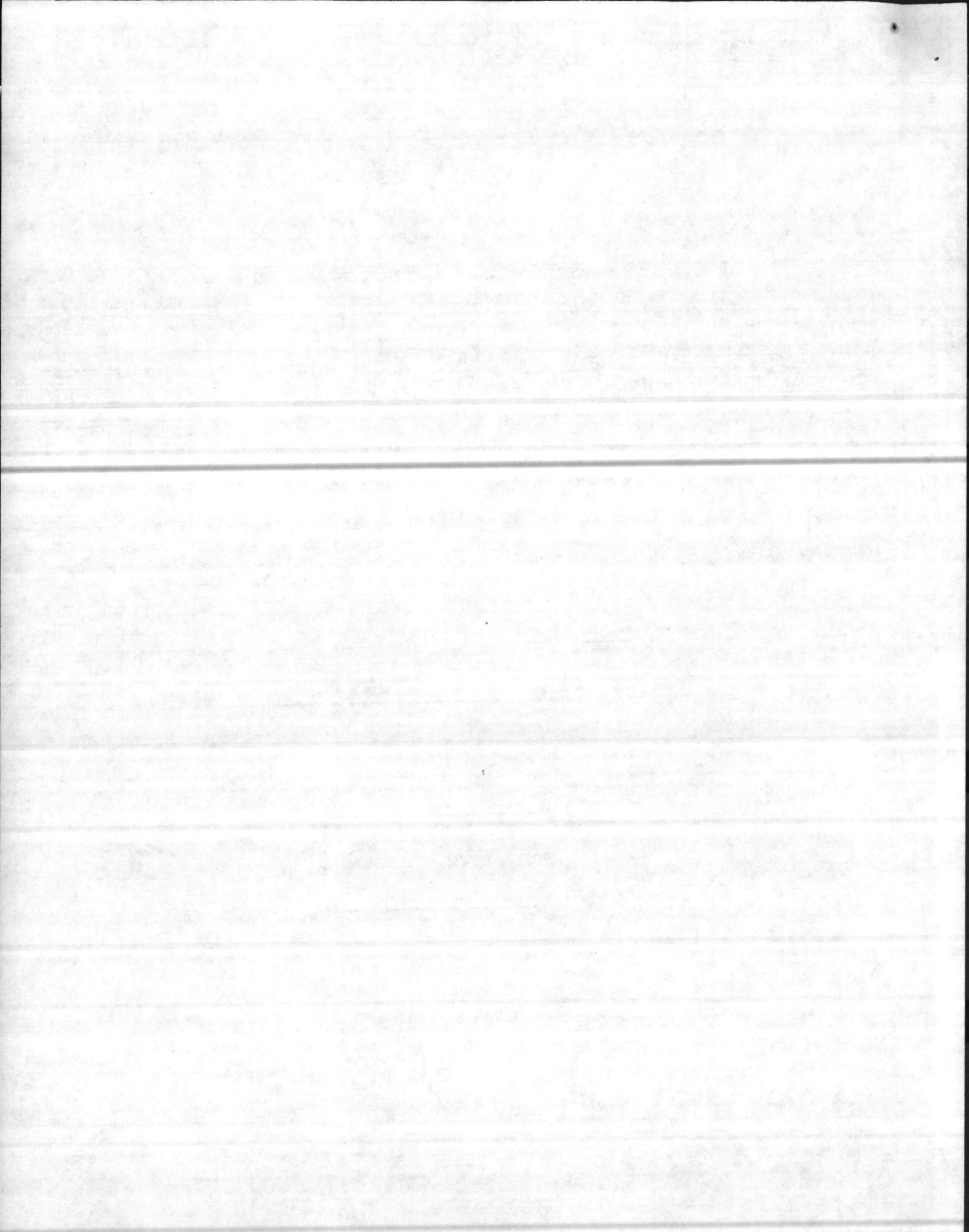
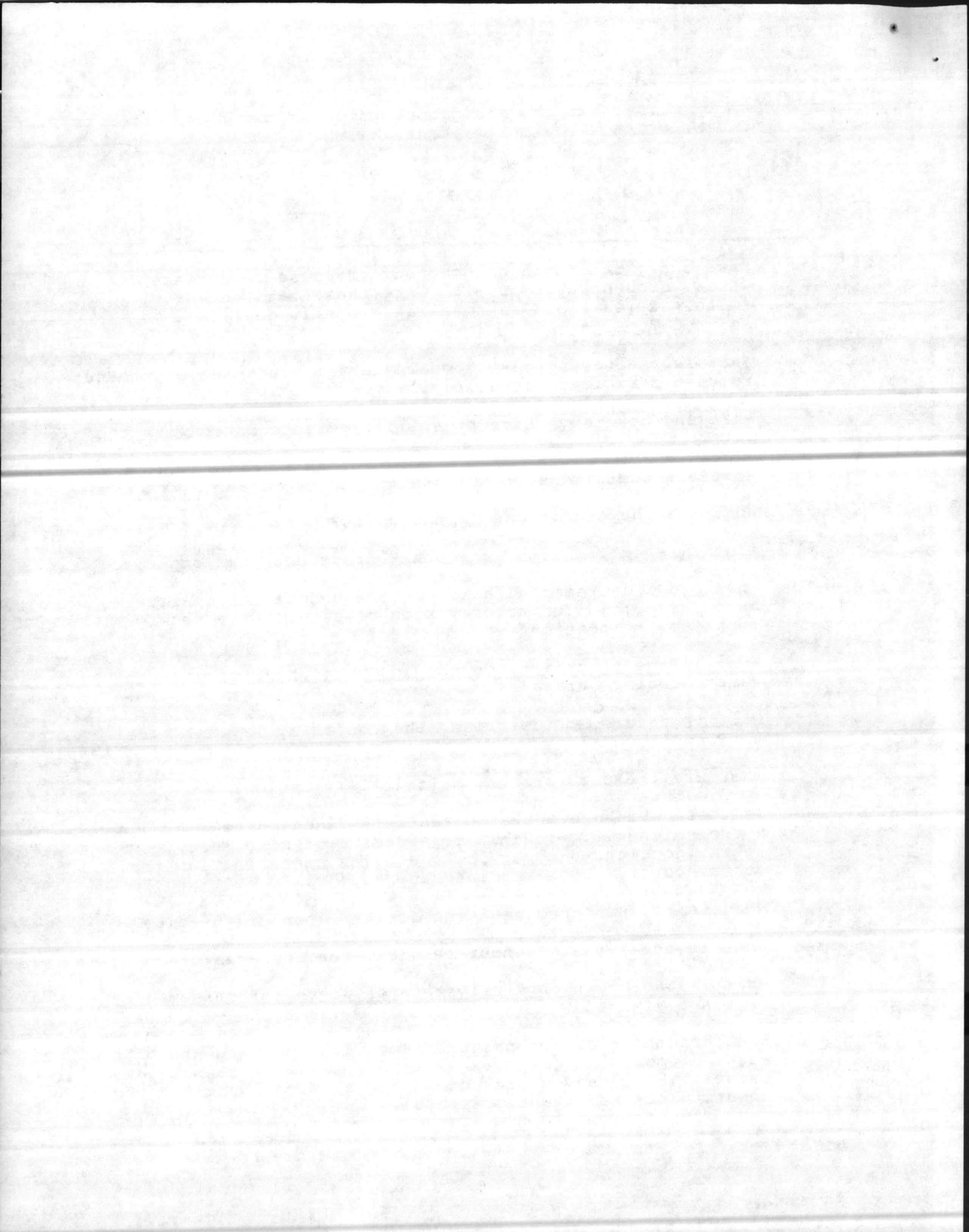


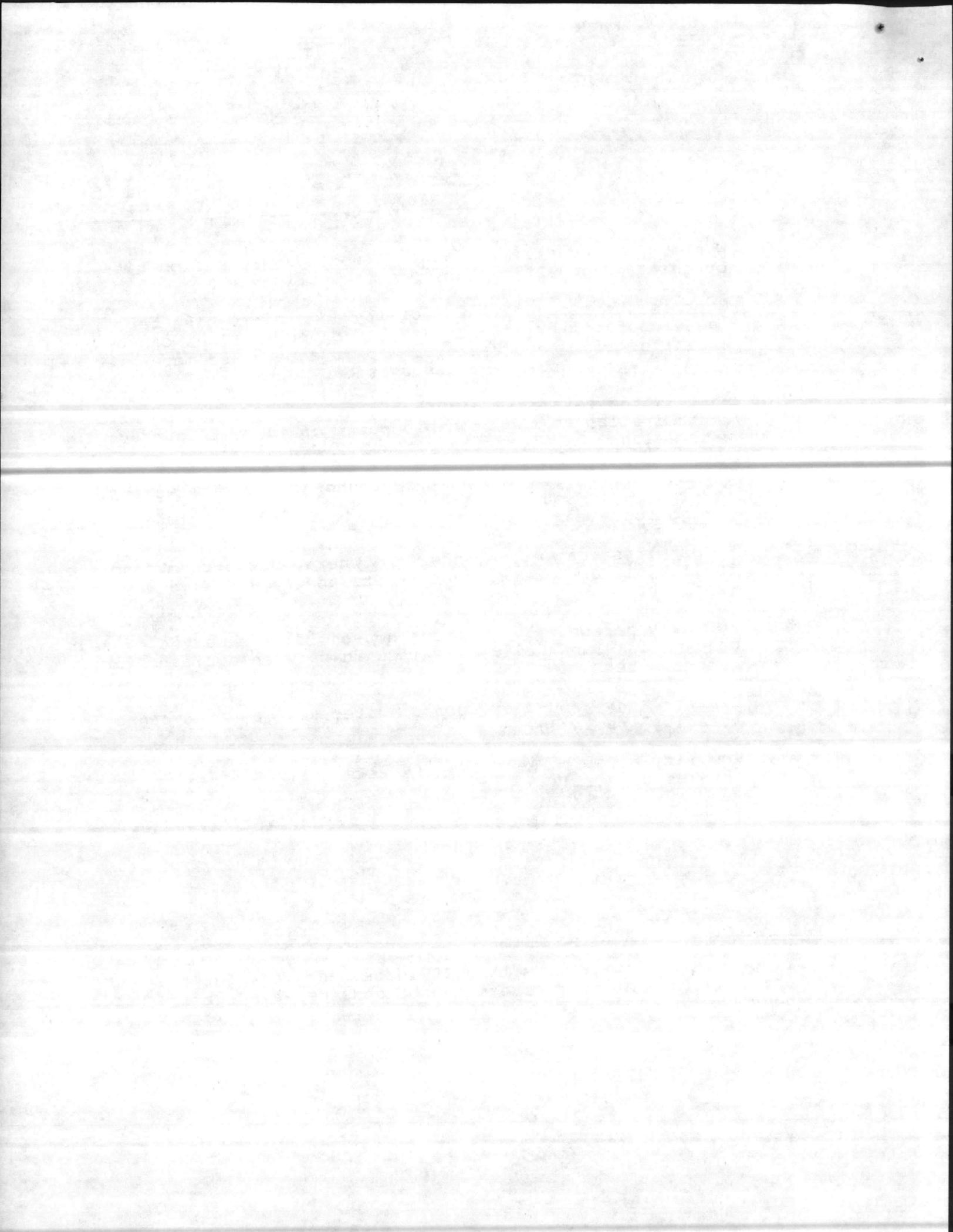
EXHIBIT 1

-
- Have analytical data documented a release to surface water, ground water or air? Are these data recent (within 2 years old) and valid (properly quality assured)?
 - What is the nature of disposal/storage/treatment or product release practices at the facility?
 - What and how many units or spills are associated with the site?
 - What are the dimensions of the units?
 - What are the conditions of the units?
 - What type of facility management practices were employed?
 - What previous remedial actions were undertaken on-site as well as off-site, including provision of alternative water supplies, relocation, etc.?
 - What is the thickness, depth, and names/type of various water bearing strata?
 - What is nature of (describe) the confining layers? Are they continuous?
 - What are the barriers to horizontal migration?
 - Is there evidence that the aquifers function as a single hydrologic unit, within 3 mile radius of site (e.g., pump tests, documented upper/lower aquifer contamination from other sources, USGS studies/reports, driller borings)?
 - What is the net precipitation for the area of the site?
 - What is the 1-year 24 hour rainfall for the area of the site?
 - What is the known physical state of waste (or presumed if site not visited)?
 - What are the known or presumed specific constituents of the waste disposed (terms such as acids, heavy metal sludges, caustics, explosives are not adequate; must identify specific constituents to extent possible).



- What is the quantity of waste disposed/released on site by unit? When estimating, provide rationale.
- What is the slope of the facility and intervening terrain (between facility and surface water body)? Slope can be estimated from topographical map or determined more precisely from direct measurement/observation.
- What is the estimated distance from a documented point of contamination to the probable point of entry to surface water along the migration pathway?²
- What is the nature and use of ground and surface waters? Are they sole source? Are they used for drinking and/or irrigation?
- Within 10 stream miles, how far (where) downstream from the facility is/are surface water intakes or sensitive environment (wetlands)?
- How many persons (3.8 persons/household) are served by each major intake and well? Distinguish between aquifers for ground water?
- Is there any ground or surface water sources that cannot be "readily" replaced?
- How many acres of land are irrigated with water from these intakes or wells?
- What is the population within a 4 mile radius of the site?

²If precipitation is less than 20 inches per year for the area, an intermittent stream can be considered a surface water body.



D. PRELIMINARY ASSESSMENT, DOCUMENTATION STANDARDS AND REPORT CONTENT

For every item identified in Exhibit 1, a "source" should be referenced in the PA report and the reference itself attached at the end of the PA. The source could be copies of relevant pages from for example, a report, memorandum, trip report, or record of communication.³

Historically, much of the information developed during the PA was not referenced or documented. It was simply reported. Later, when a site was scored under the HRS, it was necessary to go back and redevelop the data and identify the source. Moreover, inadequate documentation made it difficult at the time of the SI to determine what information was needed. Often what was reported in the PA was a person's "understanding" of the situation rather than facts based on prime source material or direct observation. For example, the PA may state that upper and lower aquifers are interconnected, however, if no references or supporting documentation were provided, the person scoring the site had to go track down the information.

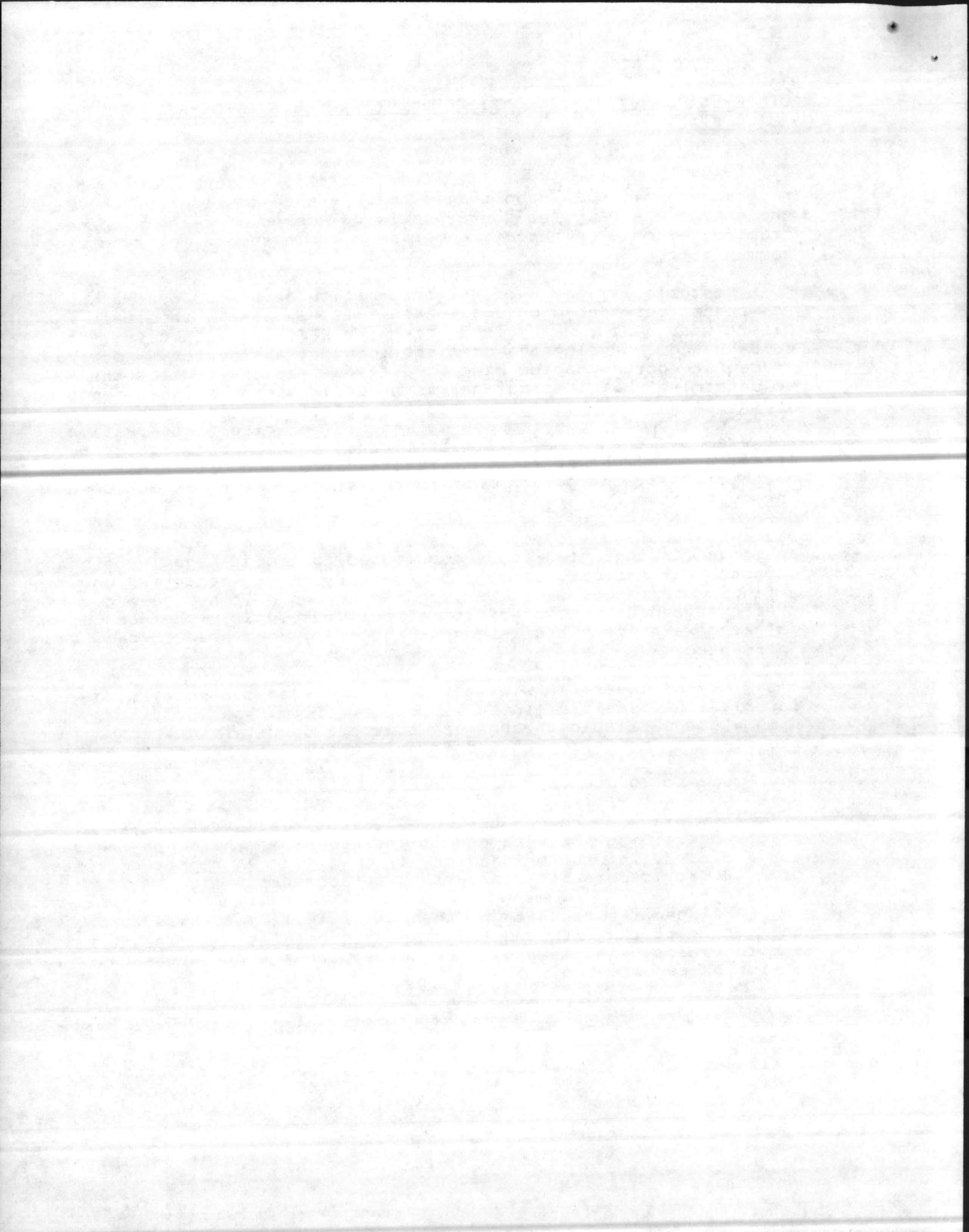
Not all findings must be referenced and documented. Generally, positive findings need to be documented, but most negative findings do not. For example, it is not necessary to reference and document a finding that no one drinks ground water when it has been documented that everyone drinks water from a local reservoir. The population drinking water from the reservoir, however, does need to be documented.

In some cases, it will not be possible to collect all the information identified in the appendix. Often the information is simply not available through any source and must be developed in the field. The PA report should note where information does not exist. This should be done only after a reasonable attempt has been made to locate the information.

At the end of the PA the investigator must prepare a PA report describing the site conditions and recommending the need for and nature of further action, if any. The PA report consists of a summary report and appropriate attachments.

The specific contents of the summary will vary based upon the nature of the site and the final recommendation. In general, a more extensive summary will be needed for sites where further action is recommended.

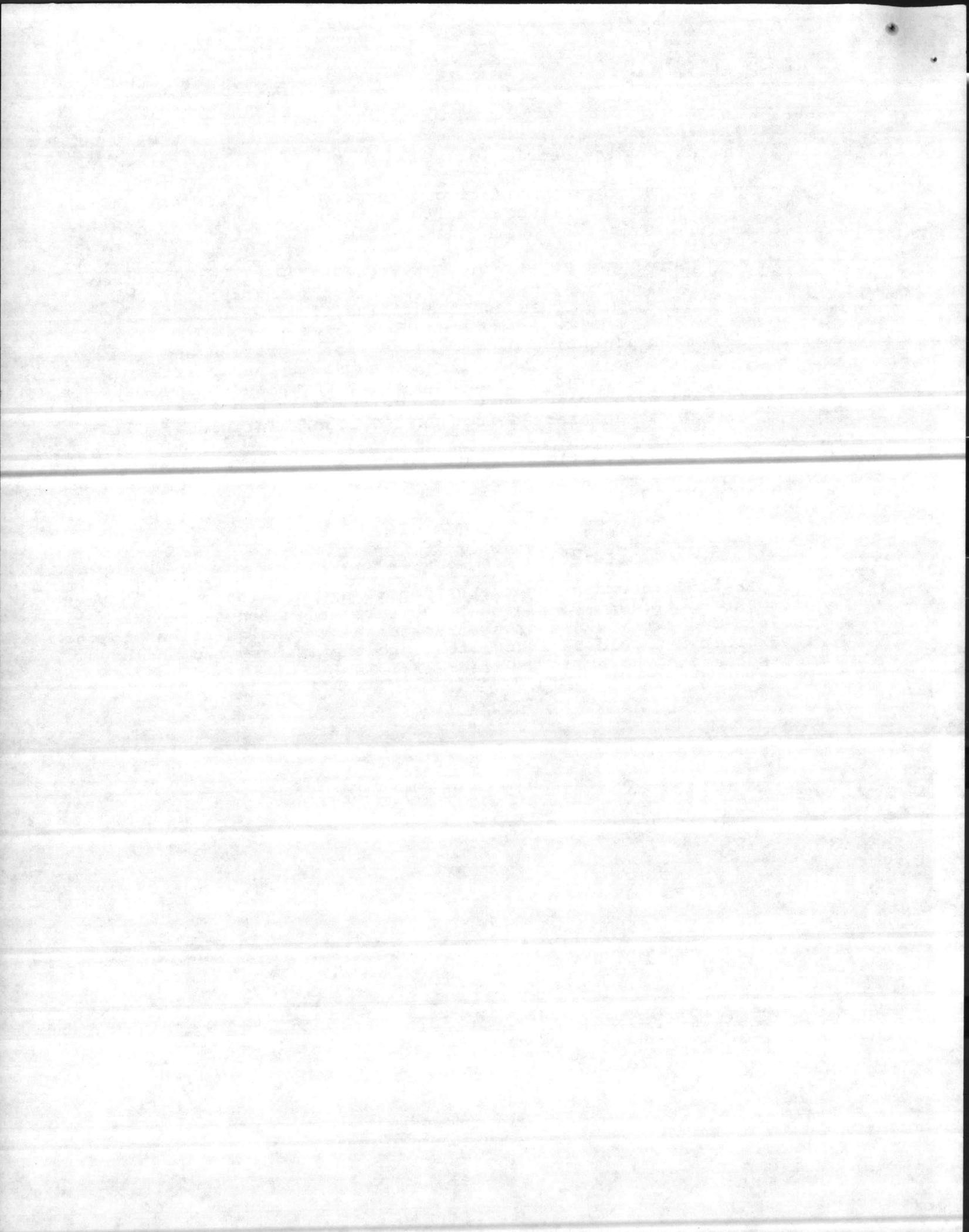
³ All records of communication must be signed, dated, parties identified with titles and affiliation, and a phone number noted.



The PA summary should include:

- cover sheet consisting of name of site, address, site number, latitude/longitude, disposition and an explanation justifying the disposition.
- brief description of the site/waste--history of site activity; types of units, layout (if known) of the site, and types and quantities of materials handled;
- identification of the routes for migration and a brief discussion of the relevant physical characteristics of the site and surrounding area; known and suspected releases based on visual evidence or previous analytical data or inferred from unit design/maintenance;
- identification of target populations or environments via surface water, air, ground water, soil, subsurface gas routes;
- recommendation; justification for recommendation; priority for SI.

Lastly, accompanying the PA report are all the prime sources documenting either a decision of no further action or the data collected for the HRS scoring. Responses to the questions listed in Exhibit 1 should be integrated into the summary and include references to the prime source materials.



CHAPTER II - SITE INSPECTION

A. PURPOSE OF A SITE INSPECTION

The SI is the second phase in the process of determining whether a site is releasing hazardous substances, pollutants or contaminants into the environment and requires response action. An SI builds on the data collected in the PA. Although the scope of the SI is broader, the goals are identical to the PA except the last one - establish priority for further action. The goals bear briefly repeating. The same principles apply to both PAs and SIs but some subtleties unique to SIs are discussed below.

1. Identify the sites that require no further action under CERCLA.

It is unlikely that all the sites that need no further CERCLA action will be identified at the PA stage. Often it is difficult at the PA stage to recommend no further action without field visits and sampling. Therefore the initial goal of the SI is to screen for these sites. To the extent such information was not already gathered during the PA, the SI should determine (1) has the facility ever handled hazardous waste and (2) does the hazardous waste have the potential for releasing or has it ever released. If the answer to both is clearly no, based on reliable data, then no further action is necessary.

2. Collect data to develop a valid HRS score for the site.

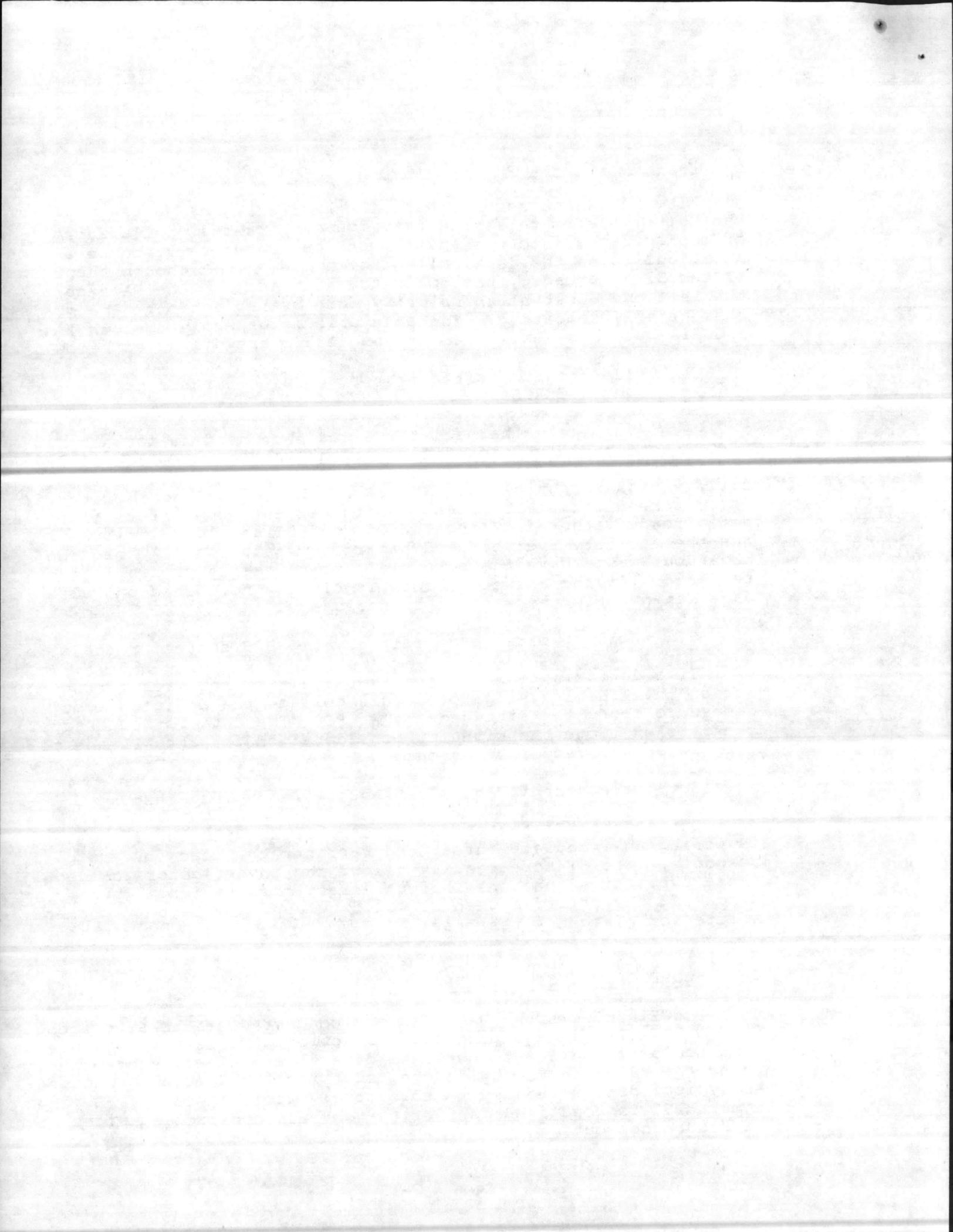
If a determination is made that the site requires further action then the investigator should collect the additional data needed to score the site under the HRS. The data is necessary in order to evaluate the site for consideration for the NPL and to then undertake remedial response.

3. Determine if the site requires emergency response.

During the SI, the investigator should evaluate if the site is posing an immediate threat and warrants the need for emergency response. The SI more readily allows the investigator to identify these types of situations through direct observation. Chapter IV discussed the criteria when it would be appropriate to recommend a site for emergency response.

B. SCOPE OF THE SITE INSPECTION

The SI follows the PA. SIs are conducted at the site identified in the PA as requiring further action. To satisfy one of the main goals of the SI--to generate data to adequately score the site using the HRS--the SI, by design, must involve sample collection. Analytical data is needed to effectively score the site. By the time an SI is conducted most of the obvious non-problem sites have been screened out.



The remaining non-problem sites probably require some sampling in order to confirm the suspected disposition. In addition, to generate data to adequately score the site and receive a score that is truly reflective of the situation, sampling is required. Although it may be possible in some cases for a site to receive a high score without documenting an observed release, EPA does not consider it acceptable to score a site without having undertake sampling. In some few cases where useful and sound analytical data already exist to score the site effectively¹, additional sampling may not be necessary. However, it is unlikely that all the analytical data to effectively score a site has already occurred.

The key difference between the PA and the SI is not so much the goals but the scope. In the PA the scope is limited primarily to information and visual data that may be developed from available records and through a site reconnaissance. The scope of the SI is much broader and allows for development of data (sampling, etc.) in the field that is not otherwise available in existing documents or gleaned through visual observation. At the end of the SI all data necessary to produce a valid HRS score for the site must be provide unless a clear determination is made that no further action is required.

Figure 1 is a step-by-step breakdown of the scope and sequence of specific activities involved with an SI. The following is a mor in-depth discussion of these steps and the general programmatic requirements that should be in place before performing any SIs.

1. BACKGROUND DATA COLLECTION

The first step in the SI is the background data collection step. The purpose of this step in the SI process is to gather the data necessary to prepare a safety plan, and a work and sampling plan that will support the HRS scoring of the site, and to collect site data not available during the PA. If the PA was performed properly it should not be necessary to collect a lot of additional site data

The more thoroughly this stage of the SI is done the more focused the field activities will be and the less field time and resources it should take. Moreover, effective background data collection that is focused, at a minimum, towards gathering data to effectively score the site, may eliminate the need to perform follow-up site inspections. In the past, insufficient attention was paid to gathering data needed to perform an HRS score before performing the field work, resulting in inadequately designed work and sampling plans. As a result it became common for one,

¹SI that does not have any analytical data is not an SI but an "on-site reconnaissance" and accordingly does not qualify in Strategic Planning and Management System (SPMS) as an SI.

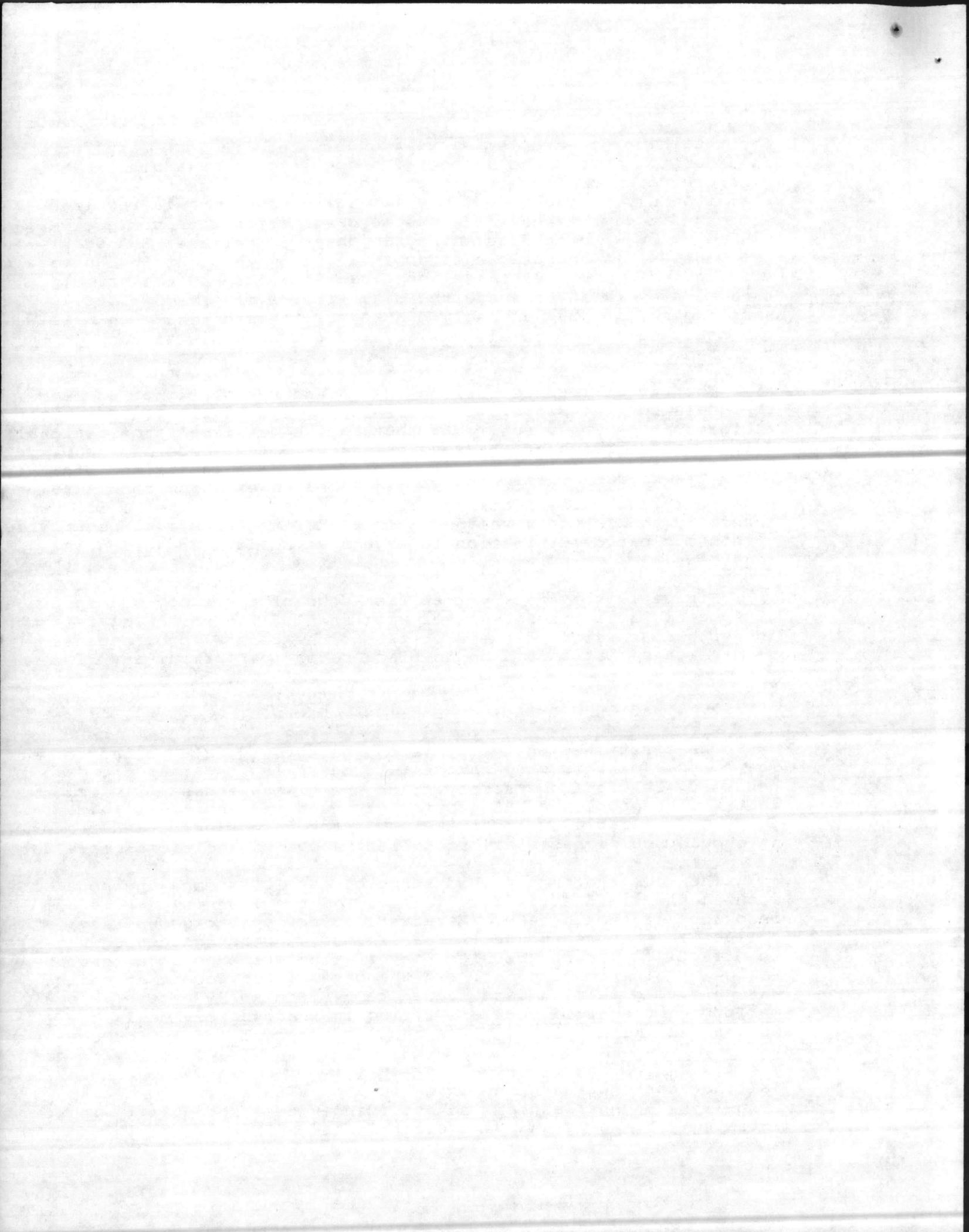
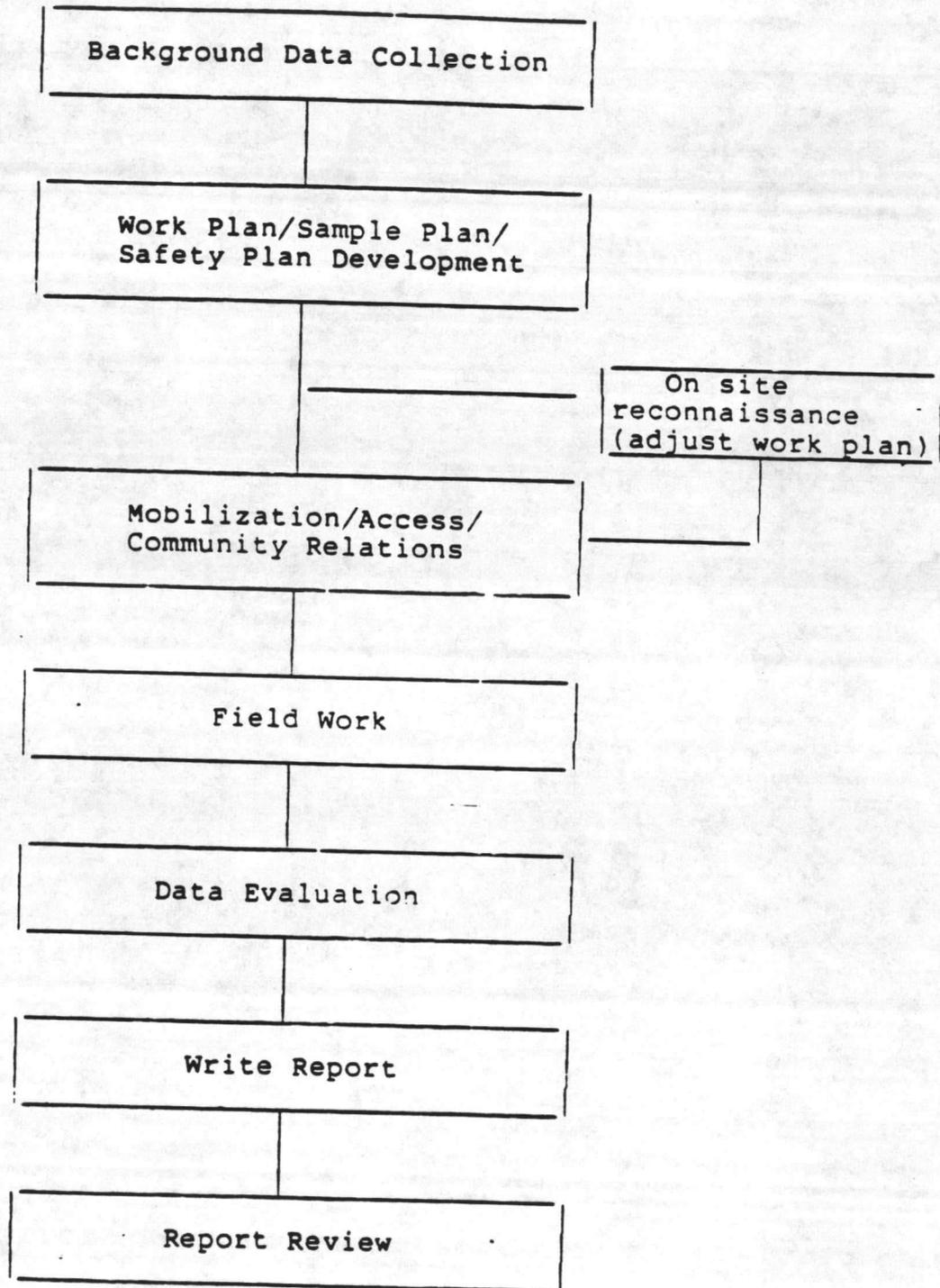
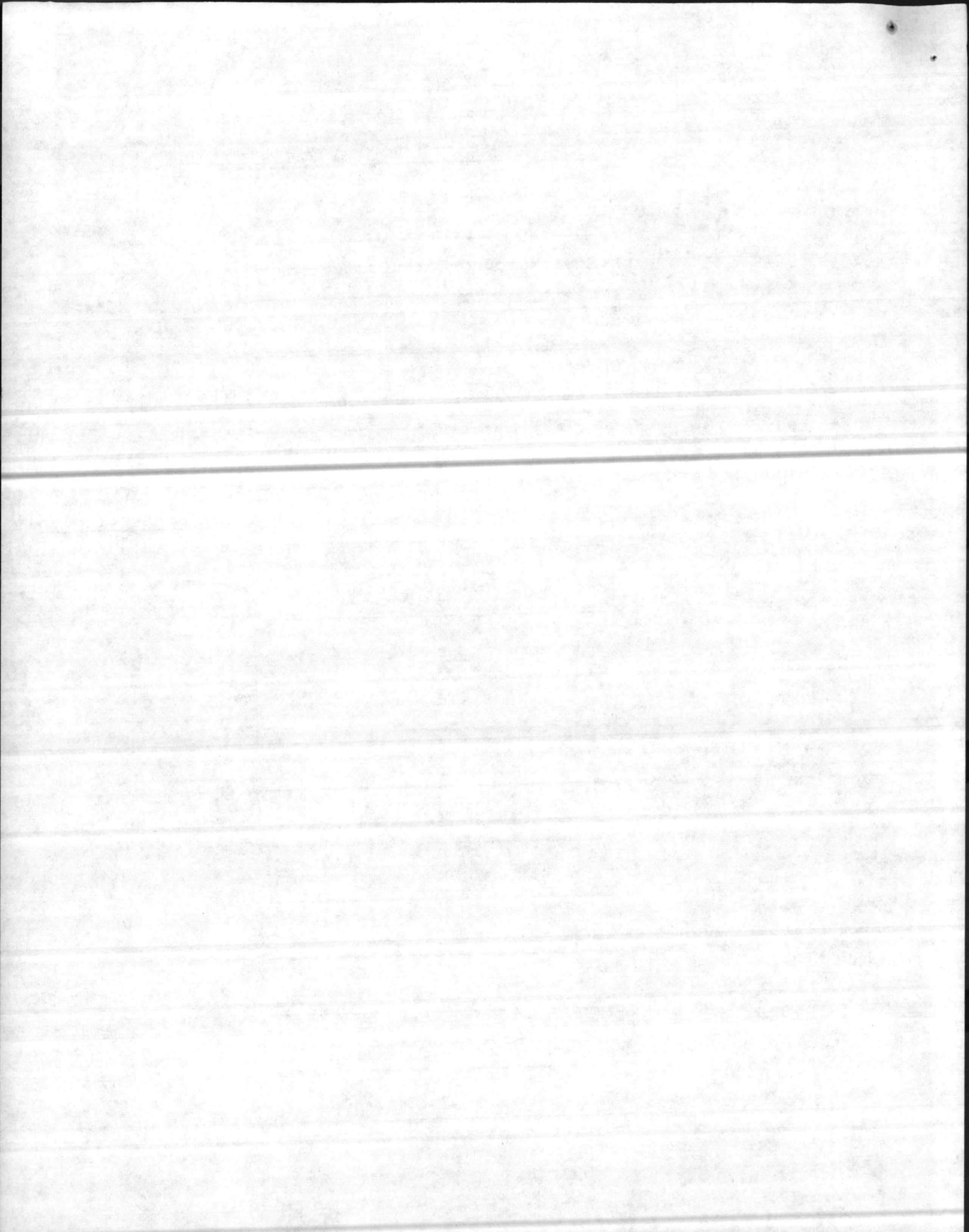


FIGURE 3

STEP-BY-STEP BREAKDOWN OF A SITE INSPECTION





if not two or three follow-up visits to a site to collect additional data. Thorough background data collection will not always eliminate the need to return to the site to collect additional data, but it will reduce the number of times when this is necessary and in the end save money. For example, data on the location of possible receptors (such as water supply sources or sensitive environments) is essential to the proper selection of sampling locations. (See guidance titled "Sampling Strategy to Support HRS Scoring" for an elaboration of this topic.)

At this stage the investigator should do a cursory HRS scoring of the site to identify where data are missing. Where key HRS data are missing, the investigator should determine if all possible sources of the information have been considered. If data gaps remain, these become the core of the SI work plan that is developed next. This cursory scoring step is perhaps the single most important step in the SI prior to the field work. It dictates the focus of the SI field activities. Refer to Exhibit 1 in Chapter 1 for detail on the essential data elements. In addition to these, some supplementary data will be needed to effectively plan sampling activities.

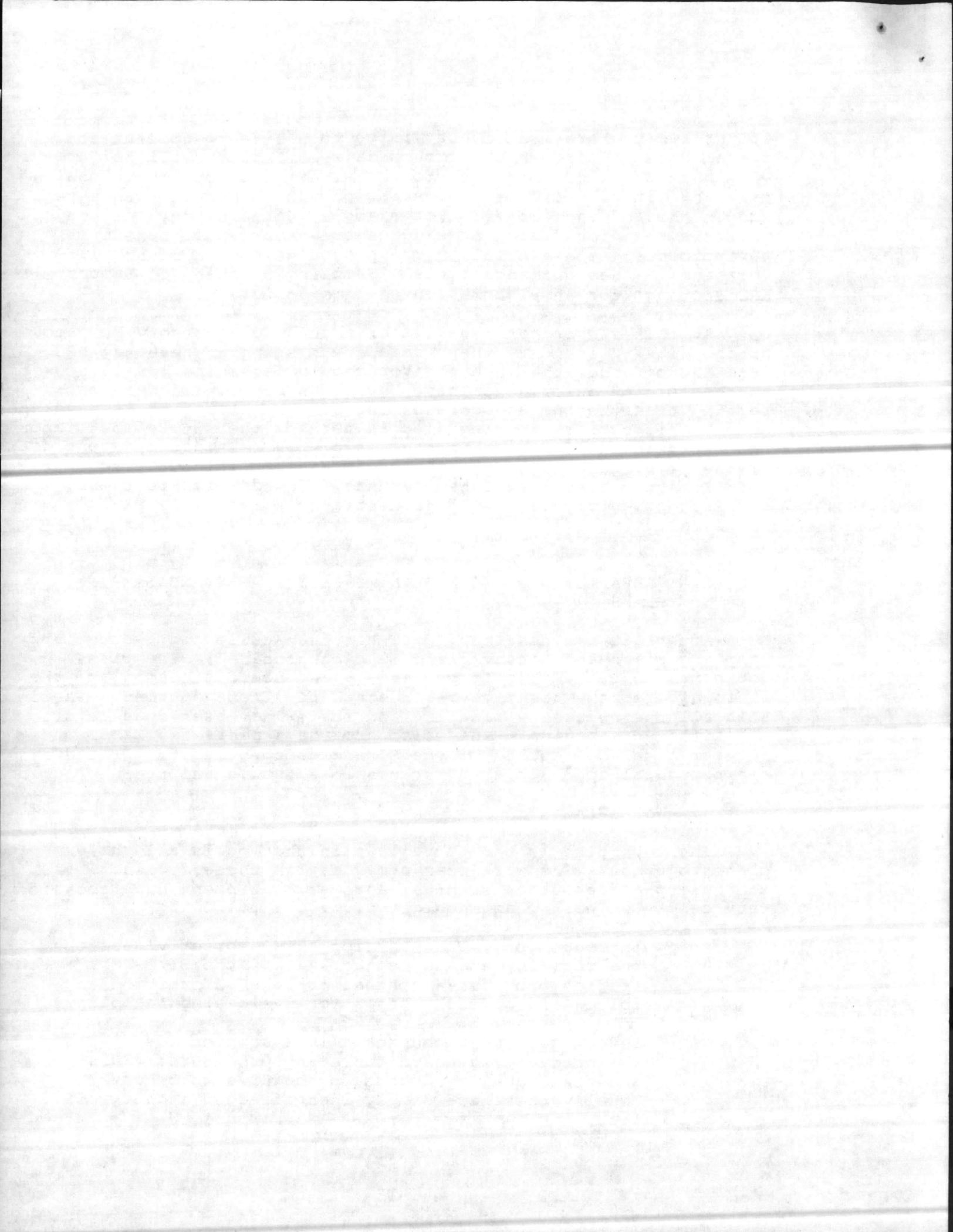
2. PREPARATION OF WORK PLAN, SAFETY PLANS, AND SAMPLING PLANS

After all the necessary data has been collected, work plans, sampling plans and safety plans must be prepared. The plans document the procedures to be used, the resources needed and the rationale for the tasks to be undertaken. These documents insure that all the necessary planning and review has been done before the field work begins. They also provide a basis for later interpreting the results of the SI and documenting the procedures and technical approach used for possible future enforcement action.

a. Work Plans

The work plan is the umbrella plan that pulls all three plans together. The work plan provides for the efficient scheduling of resources such as manpower, equipment and laboratory services. The work plan should include the following:

- Introduction. This section should briefly describe the facility and the objectives of the SI. This section provides a context for the information to follow and offers a basis for evaluating the plan.
- Investigation procedures. This section identifies the specific standard operating procedures (SOPs) and field quality control procedures to be used. Usually these are simply identified in a check-off list.



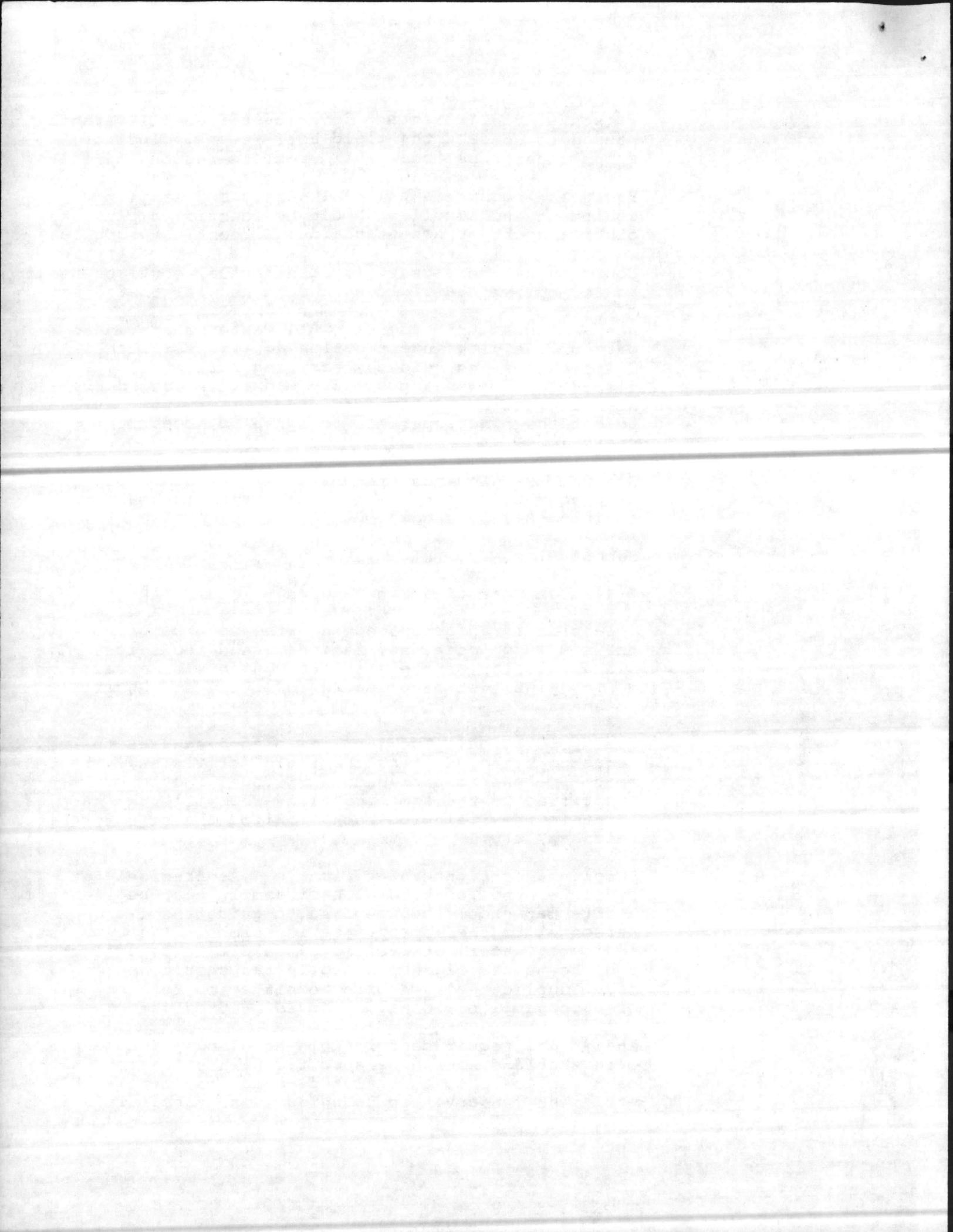
- Personnel requirements. This identifies all persons needed to conduct the field activities including support personnel and their specific responsibilities.
- Equipment requirements. All safety and sampling equipment and supplies should be identified plus any other support or non-standard equipment and supplies.
- Contractual services. Any contractual services needed to accomplish the field work such as well installation.
- Waste disposal procedures. All waste generated as part of the site investigation activities, such as disposable suits, gloves, sampling materials, must be disposed of in an appropriate manner in accordance with RCRA regulations. (In many cases it may be possible to get the owner/operator to agree to accept the waste.)
- Special training requirements. If any new equipment or procedures are to be used then some in house training may be needed.

2. Sample Plan

2(a). Contents of a Sample Plan

The sample plan is incorporated into the work plan and identifies the sampling locations, rationale and logistics. The following is a discussion of the standard contents of a sampling plan. A sampling plan must be prepared for every site where sampling is planned.

- Field operation. The sampling plan discusses the sequence for conducting the field activities. The specific functions of each individual should be identified in the sampling plan--who will take samples, maintain the field log book, monitor the site for air releases, etc.
- Sampling locations and rationale. As precisely as possible, the location of each sample must be identified. A site map should be prepared to guide the field personnel to the appropriate locations. The type (soil sediment, water) and volume of sample to be collected and the number of samples collected should be identified (i.e. duplicates). A brief explanation for the selection of each sampling location should be provided.
- Analytical requirements/sample handling. The sample plan should discuss the specific parameters for which each sample is to be analyzed--organics, metals, PCBs etc. The preservation techniques and materials for



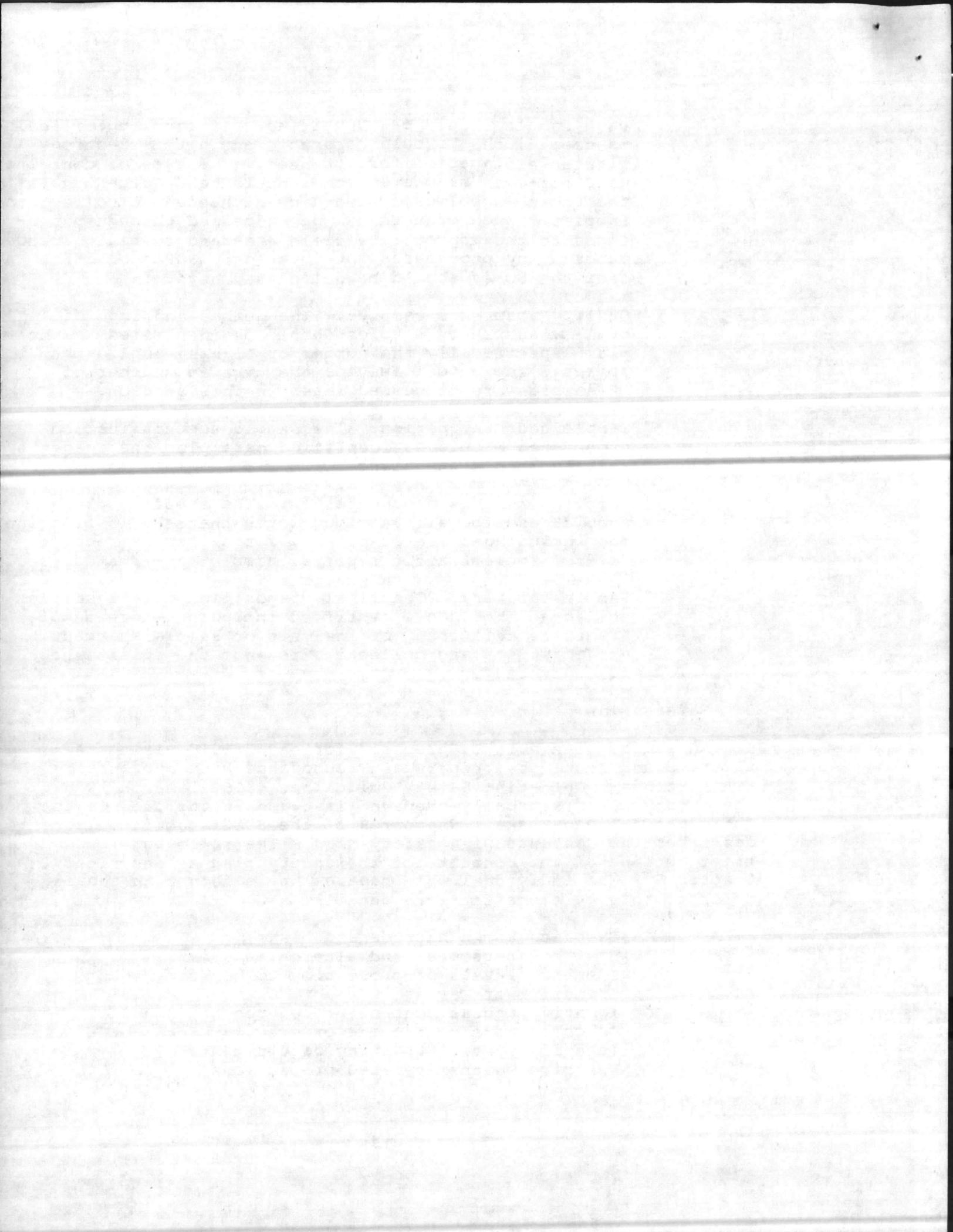
each sample should be identified. If sampling filtering is needed, that should be specified in this section with an explanation for its need. The type of container used for each sample episode should be described including the tools, supplies, and equipment needed to collect the samples. Much of this can be addressed through references to the appropriate field standard operating procedures. Any procedures not covered by SOP's or different from the SOP's should be delineated here.

- Quality assurance samples. The number and type of quality assurance samples should be identified in the plan--specifically the number of blanks, duplicates, or spikes. The guidelines for the type and number of QA samples are discussed later in this section.
- Sample decontamination. The sample decontamination procedures should be identified here plus the reagents and any special handling.
- Sampling reports/documentation. The sampling plan should describe all sampling forms that should be filled out including chain-of-custody forms, sample receipt forms, sample traffic reports, sample tags/custody seals.
- Sample delivery. The final disposition of all samples collected should be identified including where samples are to be delivered for analysis or sample shipment and if splits are collected, to whom the splits should be delivered.

3. Safety Plan

A safety plan must be prepared for each field visit. All safety plans should be prepared in accordance with appropriate EPA's Standard Operating Safety Guidelines (SOSG), March 1984. The safety plan is usually prepared last and is tailored to the anticipated field tasks. Chapter 9 of the SOSG specifically describes the contents of a safety plan. The following is a brief outline of the contents of the safety plan as described in Chapter 9. The individual who prepares the safety plan should refer to this guidance for more details.

- Describe known hazards and risks
- List key personnel and alternates
- Identify levels of protection to be worn
- Identify work areas
- Identify access control procedures
- Describe site monitoring program
- Identify special training requirements
- Describe weather-related precautions



3. MOBILIZATION

Once the work, sampling and safety plans have been reviewed and approved the next stage is to address all the logistics of implementing the work plans. This includes the following tasks:

- Procurement/reservation of equipment/supplies

All the equipment and supplies should be either procured or scheduled during the mobilization phase. This includes all safety equipment and supplies and all the materials necessary to collect samples plus any other equipment and supplies necessary to support field activities.

- Procurement of contactor/subcontractor support

In some cases equipment or services necessary to perform the site work are not available and must be procured. Accordingly, in this stage the work necessary to have available the necessary resources should be performed.

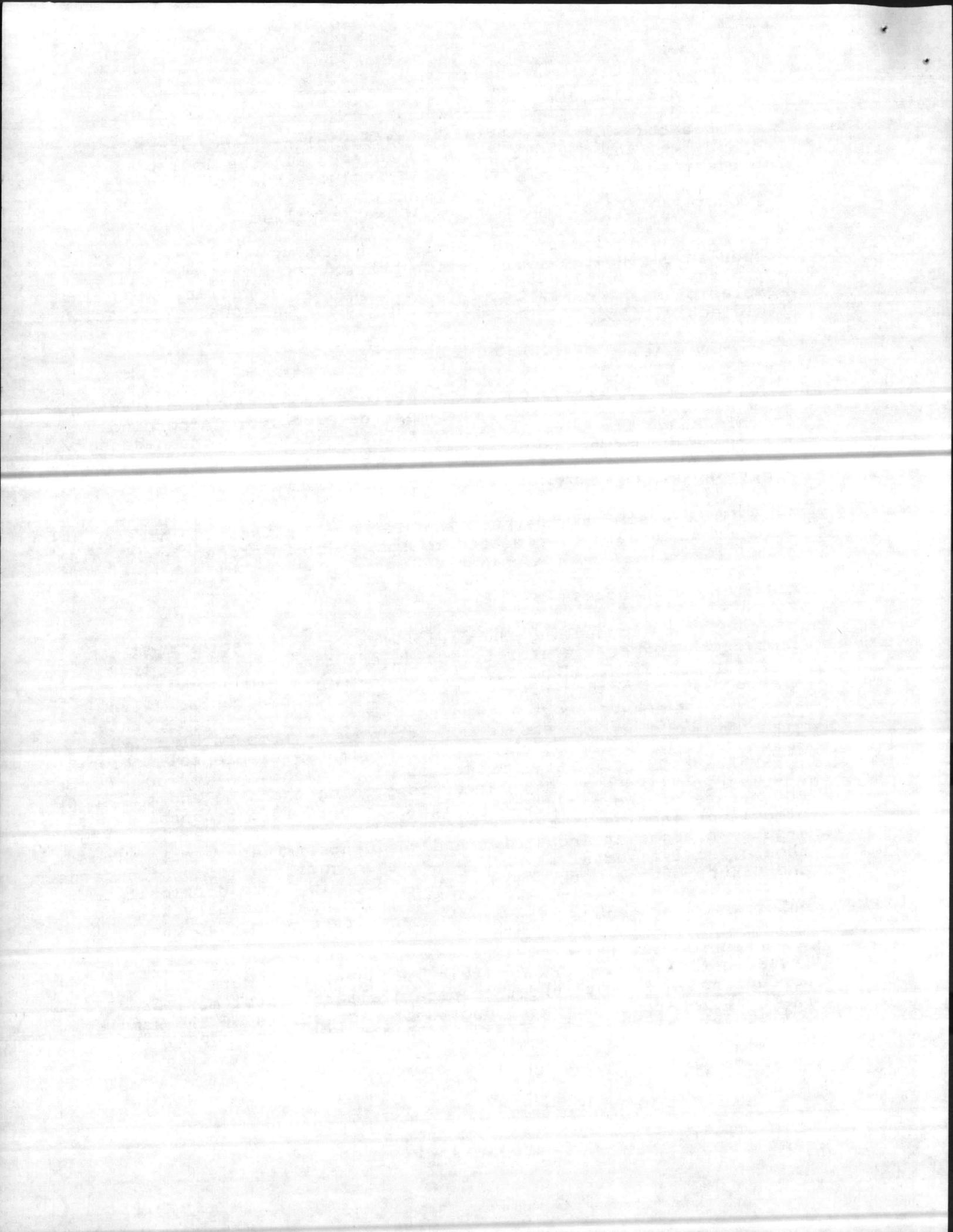
- Calibration/check-out of equipment

It is essential that all equipment to be used in the field be checked out and calibrated to insure their proper functioning.

- Gaining site access

Prior to conducting the field work, the inspector must contact the owner/operator to schedule a time for the SI team to enter the site and perform the necessary field activities. Although it is possible that there has been some contact with the owner/operator about impending field work, the appropriate regional/state person should contact the owner/operator to verify dates and the nature of the field activities--sample collection, picture taking, facility inspection, instrument monitoring. This should be followed with a letter confirming the date and the scope and nature of the field activities. To perform a reconnaissance or collect samples it may be necessary to contact other individuals --such as adjacent industries and residents. These parties too should receive verbal as well as written notification of the dates and nature of the work. Since it is becoming more difficult to gain access to sites to perform SIs it may be necessary to involve enforcement or general counsel to facilitate prompt access.

Section 104 (e) of CERCLA specifies that persons conducting investigations under CERCLA (this includes State personnel conducting PA/SI work under cooperative agreements) must provide the owner/operator with an opportunity for splits of the samples collected. At the time arrangements are made for access, the



owner/operator must be informed that they are entitled to splits of the samples collected, if they are interested, and that they should provide the necessary sample bottles. If the owner/operator declines the splits, the investigator should try to obtain this in writing.

The owner/operator has the right to request confidential treatment of certain data for information that is considered confidential as prescribed in USC Title 18 . The inspector should avoid agreeing to this to the greatest extent possible since it poses a problem with use of the information in public proceedings under CERCLA such as NPL listing. It also poses a burden on the individual and organization to control the data. CERCLA section 104(e)(2) specifies that all data deemed confidential must be identified in writing by the owner/operator. The owner/operator should be instructed to identify all confidential data and explain the reason why the data is business confidential in accordance with USC Title 18 Section 1905.

° Undertake Community Coordination

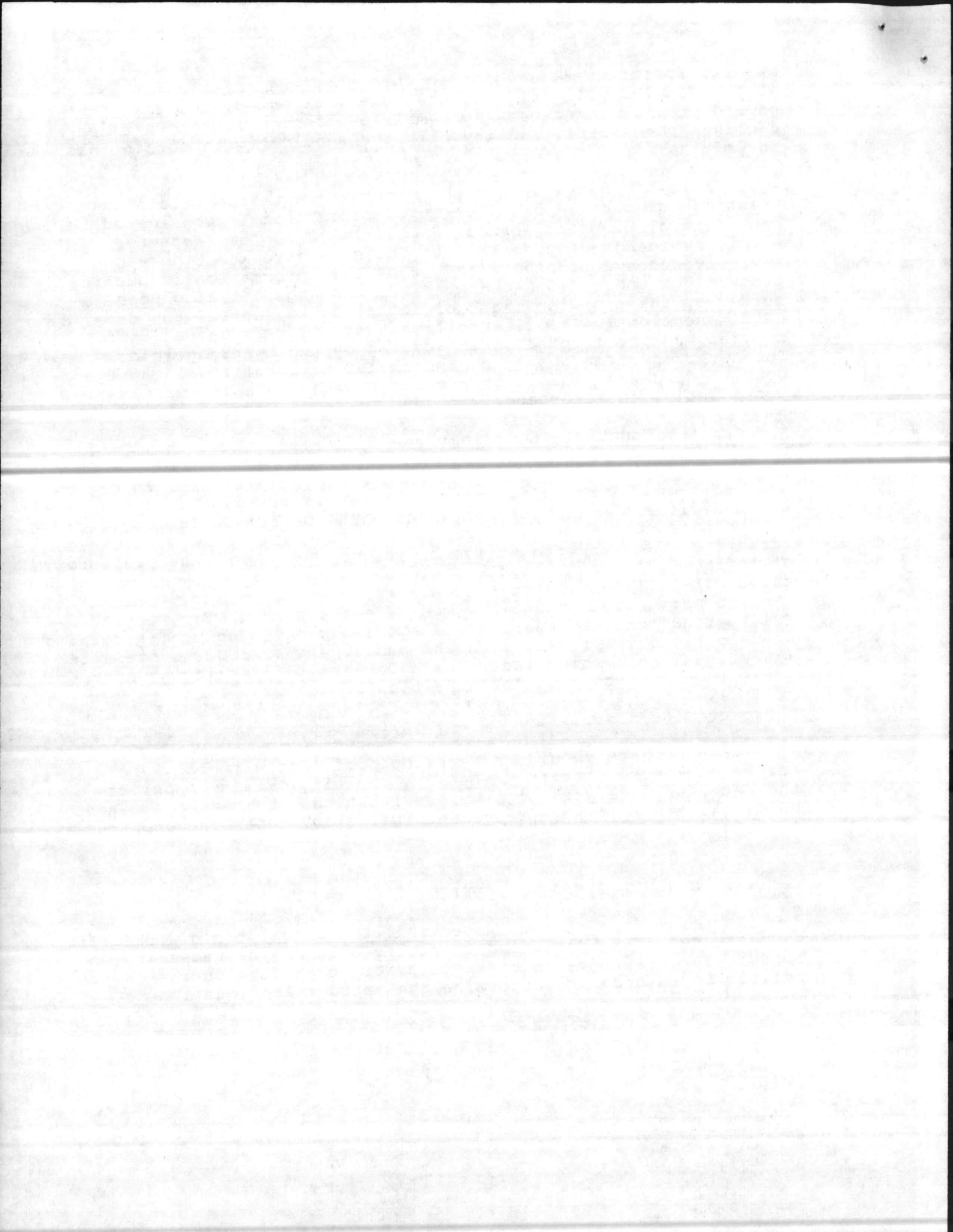
If it will be necessary to conduct any field tasks in or near residential or non-industrial business areas, then appropriate local officials should be contacted ahead of time. It is difficult to remain unobtrusive while conducting SIs particularly if field workers are wearing protective clothing. Moreover, the presence of "official" looking people could cause undue alarm. In some cases, it will be difficult to prevent this but prior, well handled community contact can minimize the alarm. Each of the EPA regional offices has a staff specializing in community relations to help field staff deal with the public at hazardous waste site investigations. These individuals can assist identifying appropriate local community contact for a particular area.

° Procurement/reservation of analytical support

Arrangements should be made ahead of time with the laboratories to insure that the necessary capacity exists to perform the necessary analyses of samples within the maximum recommended holding times. These arrangements will vary depending upon the particular laboratory used.

4. CONDUCT FIELD ACTIVITIES

At this stage of the inspection, the actual field work will be conducted. As identified in Figure 3 it may be necessary to conduct an on-site reconnaissance prior to performing the sample collection in order to determine the appropriate locations to



sample. This will be necessary in situations where insufficient information exists about the site and its surrounding environment to identify where to sample and how many samples to collect. If, during the PA, a reconnaissance at a relatively small site was performed, there may be sufficient information to perform the field work including sample collection without having to undertake a reconnaissance of the site.

There are a host of different aspects associated with conducting the actual field work. This section will discuss the key aspects of the field work.

- Sequence of field activities

Almost all field work will follow the same sequence of events. Frequently, the only element that varies is the time required to perform the event. The following is a list of tasks in sequential order.

- (1) Site Arrival

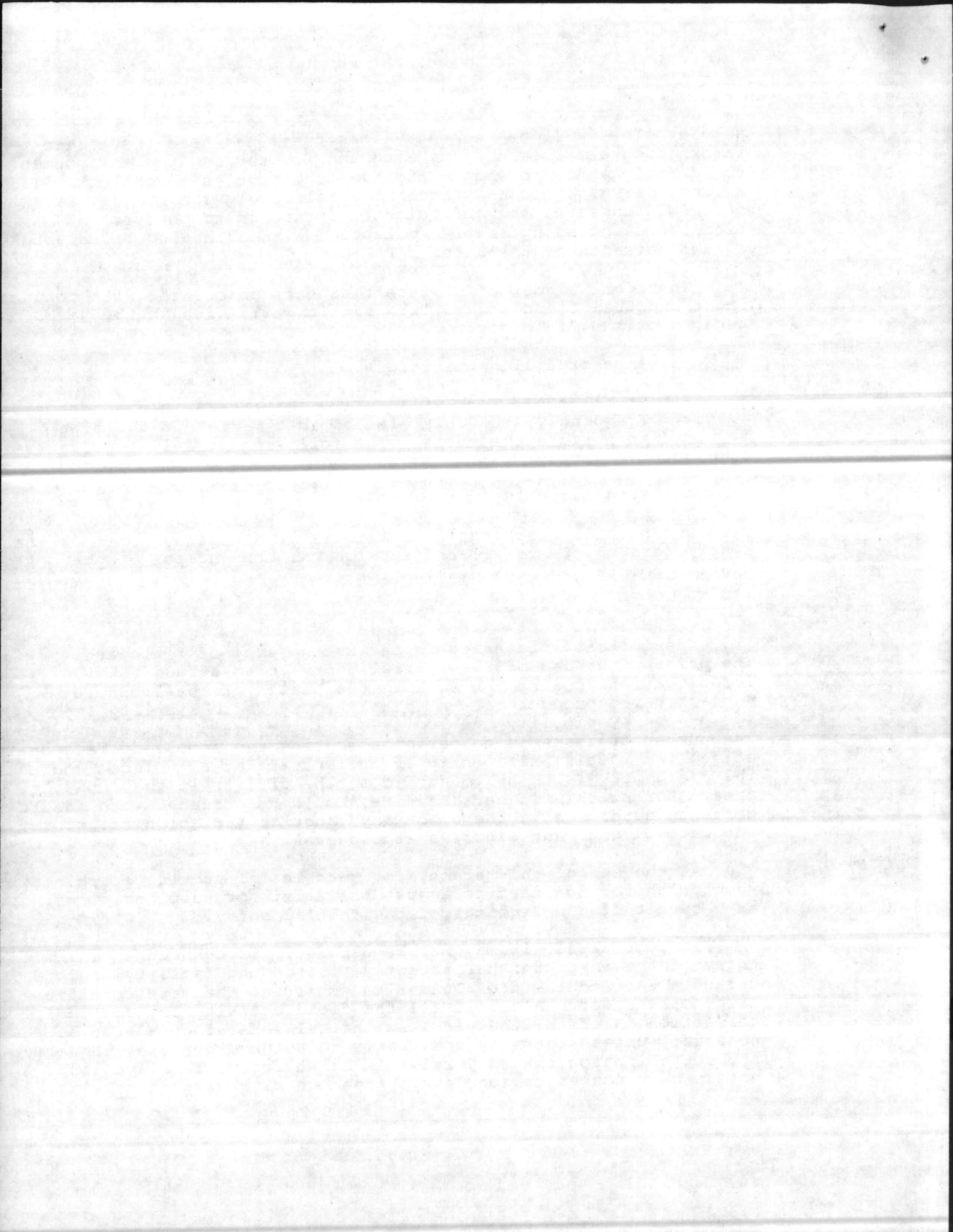
During this step, the team arrives at the site, notifies the owner/operator of arrival and sets up the command post, access control points, and decontamination lines.

- (2) Initial Entry

The initial site entry is the second step of field activity. The primary purpose of the initial entry is to screen the facility for situations posing a threat to the health of the field team. A practical byproduct of the initial entry is to simplify the field work by simplifying the logistics of the field work by reducing the number of tasks to be performed during the sample collection stage. An initial site entry is appropriate at all places where the field work is to be conducted on the site or in the immediate area. During this stage, the site should be screened with instruments to determine if there are any vapor or radiation emissions, adequate oxygen, and explosive atmospheres.

At the end of this stage, the team leader should determine whether there is a need to adjust the safety or sampling plans as a result of the findings of the initial entry.

In some cases, it may not be necessary to conduct an initial entry if the inspector has recently visited the facility, such as during a PA, and the team leader is confident the site conditions have not changed. Also, if all the field activity and sample collection is off of the site, an initial screening may not be necessary unless there is some basis to think otherwise. Usually any contamination that may exist is at environmental level and not at high concentration levels that one might expect on site.



(3) Field Work/Sampling

During this stage of the field work the inspectors are:

- collecting samples
- making visual observations
- maintaining a field logbook
- taking photographs, and
- monitoring for vapor emissions

During the field activities, continuous monitoring for vapor emissions is necessary to detect air release from sampling activities.

(4) Decontamination/Demobilization

At this stage all persons and equipment exiting the site are decontaminated. This occurs not only at the completion of all field work but each time persons exit the site, including rest breaks. In addition, all sample containers are decontaminated. All sample identification forms, tags, sample shipping forms, chain-of-custody forms, sample receipt forms and sample traffic forms are completed. All samples are packaged for safe transport. If samples are to be shipped by express carriers to the laboratory, then the samples are packaged in accordance with Department of Transportation regulations for shipping of hazardous materials. All clothing and support materials that will not be reused must be containerized either for transport and eventual disposal or to leave on the site.

(5) Site Exit

When the time comes to leave the site, the team leader should check out with the owner/operator. If requested, the team leader should provide the owner/operator with a receipt describing the photographs taken. In addition, the team leader must deliver a receipt describing the samples collected as required in Section 104(e)(1) of CERCLA. The inspector should obtain a written acknowledgement of the receipt of the samples. If the owner/operator requested split of samples, then the samples would be left with the owner/operator at this time.

• Photography

Photographs should be taken to document the conditions of the facility and procedures used in inspection activities. Two sets of photographs are recommended in the event of camera or processing failure.

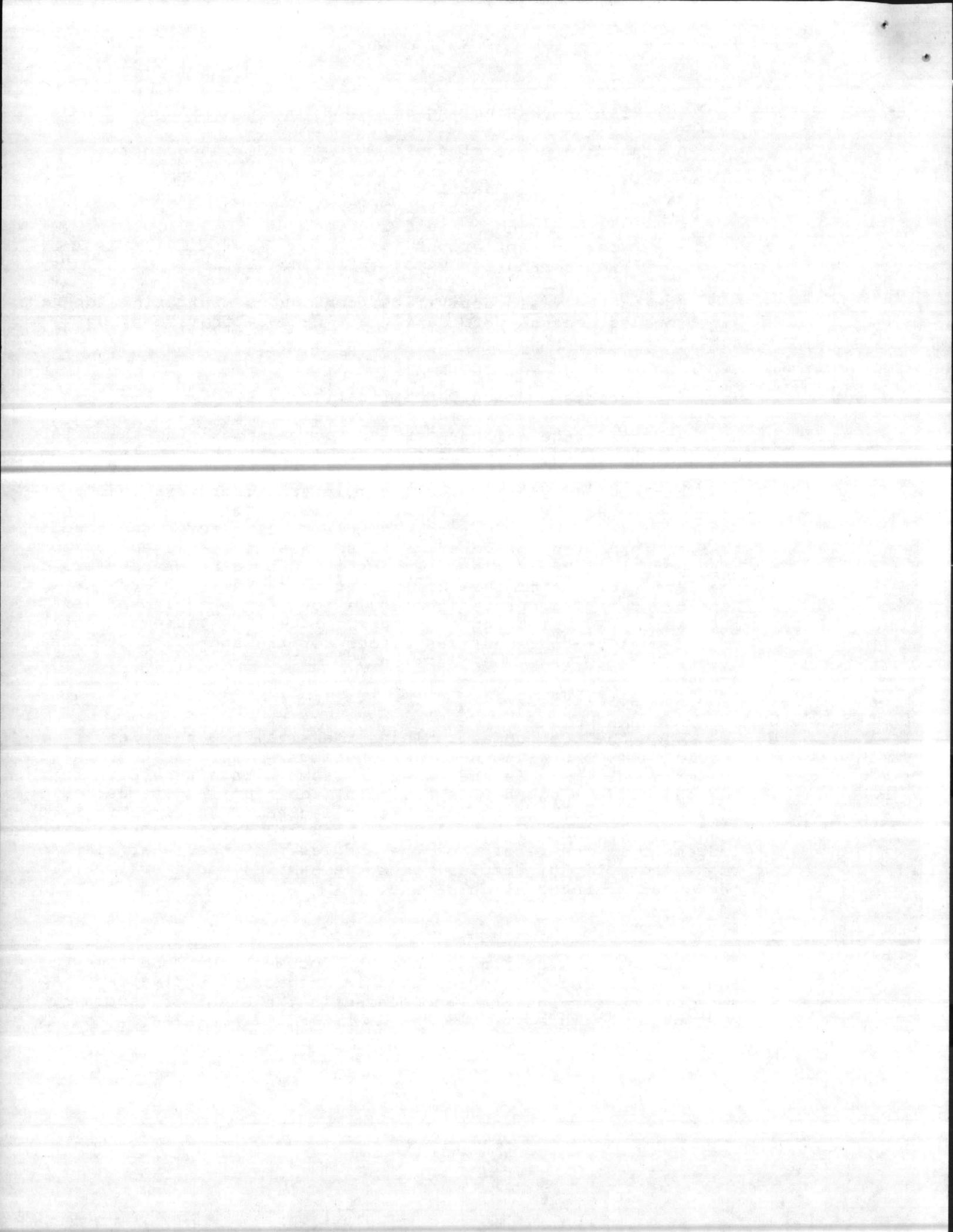


Exhibit 2 identifies the routine types of pictures that should be taken during an SI.

- **Logbook Maintenance**

A logbook must be maintained for all site inspections and site reconnaissance. The logbook will serve as the basis for preparing the final SI report, interpreting data, describing the site and, most importantly, defending the work done and results obtained in any future legal proceeding under RCRA or CERCLA. Accordingly, logbook maintenance should be consistent with these goals.

Exhibit 3 identifies the type of entries that should be made in the logbook.

C. FINAL REPORT/FILES

After evaluating all the data generated from the PA and SI, the investigator must prepare a report describing the findings, results, conclusions and recommendations.

The report should describe the site, the relevant physical features/characteristics that affect the potential for contaminant to migrate, the potentially affected populations and conclusions and recommendations. Integrated into the report are the response to HRS data needs with the appropriate references. The basis for any conclusion and recommendation in the report should be clearly substantiated in the report. If follow up investigation is required the relative priority of the action should be explained. In addition, where further action is recommended, the report should also describe the scope of further action especially for sites that pose some threat but which do not qualify for CERCLA remedial or removal funding. In the majority of these cases, the sites will be referred to the State for follow up action.

The following is a recommended outline for an SI report. It may not be necessary to discuss all the items identified in the outline if the item is clearly irrelevant to the particular site. For example, it may not be necessary to elaborate on the surface water run off features if the site is directly discharging into the ground water and not onto the surface.

- **Executive Summary**

This section should summarize on no more than two pages, the broad findings and recommendations.

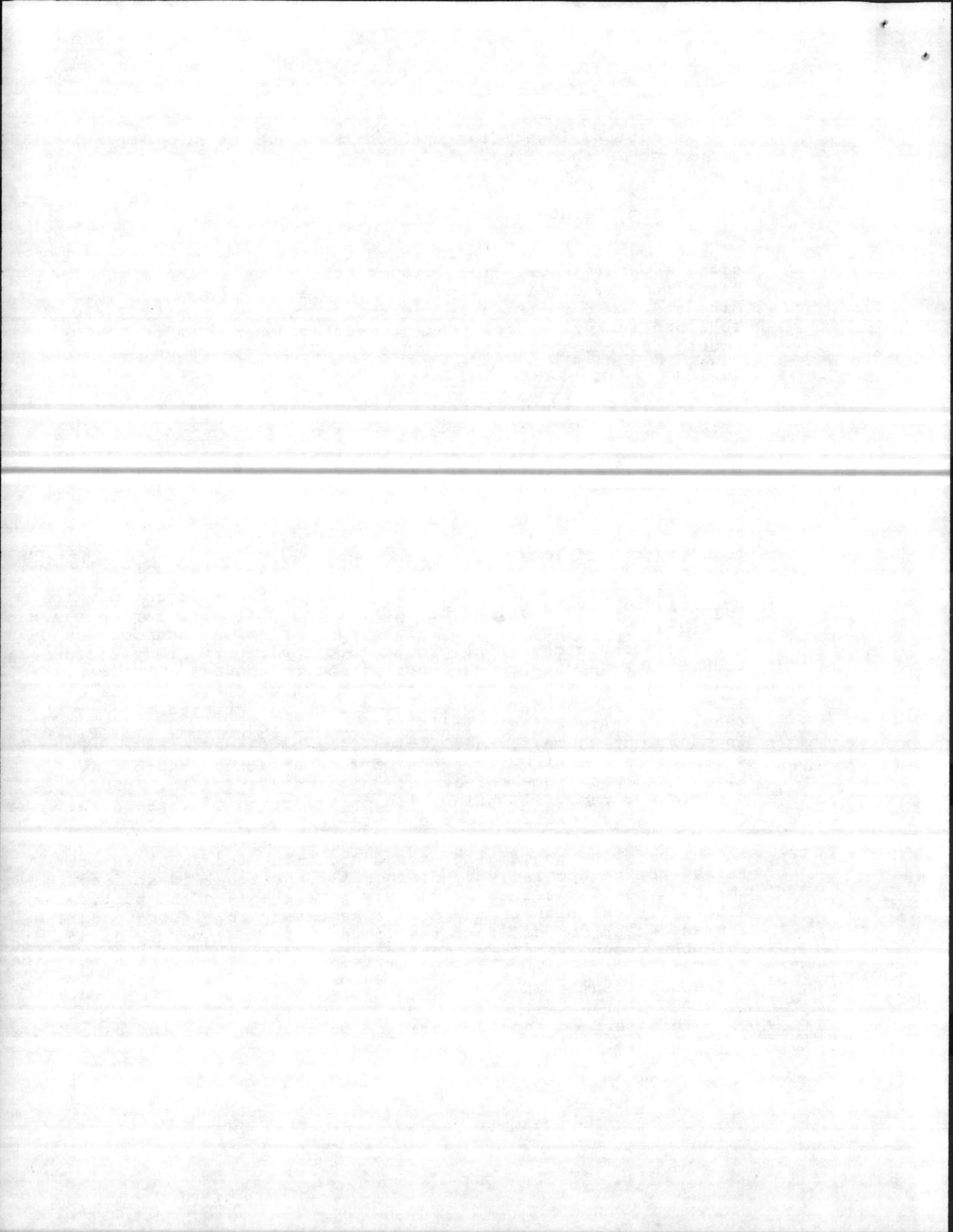


EXHIBIT 2 - Types of Photographic Documentation

Pictures representative of overall facility

Sampling locations and sampling activities

Posted signs identifying ownership of facility

Evidence of releases--leachate seeps, pools,
discolored water, or stressed vegetation

Individual units--lagoons, drums, landfills, etc.

Visual evidence of poor facility management or unit
design

Adjacent land use

Area of easy access by unauthorized persons

Other relevant features

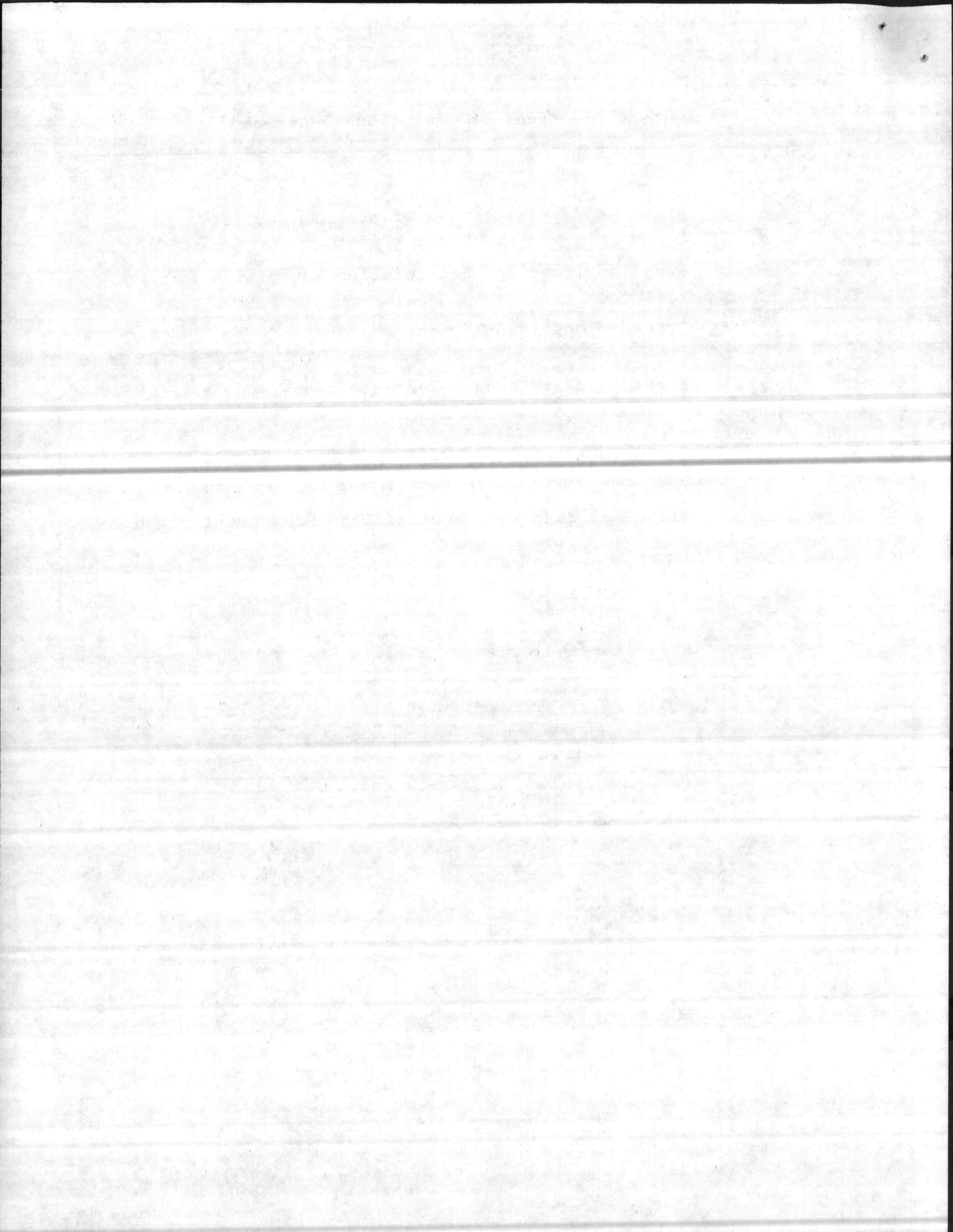


EXHIBIT 3 - Type of Logbook Entries

All personnel on site during each stage of the site work

All instruments used during the field work with unique identification numbers

Description of film, camera, special features used

Description of weather and changes in weather

Description of sample (appearance)

Description of location of sample (including depth)

Drawing of map(s) identifying site layout and sampling points

Result of field measurements--distances, instrument readings, well measurements, wind direction and velocity

Field calculations

Decontamination procedures used between collection of each sample

Any deviations from SOPs

Factual description of structures and features--wells and well construction, units, containment structures, buildings, roads, topographic and geomorphic features

Signs of contamination--oily discharges, discolored surfaces, dead or stressed vegetation

Map of facility showing point and direction of photographs

Any other relevant items

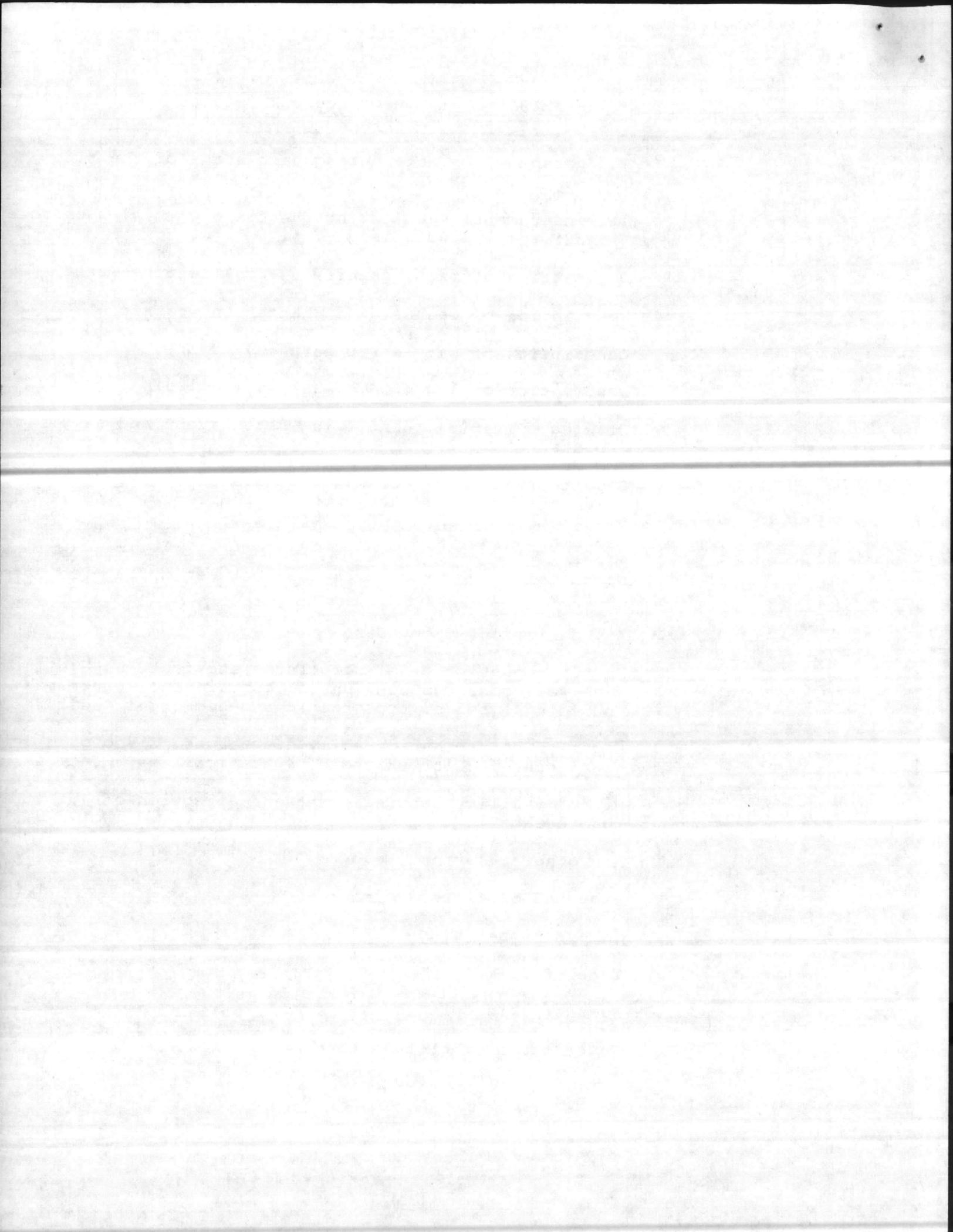
Sequence of picture number

Camera number(s)

Type of film

Person taking picture

Description of picture taken



° Site Background

This section should summarize, among other things, the location of the facility, the types of hazardous substance handling practices (by individual unit to the extent known), the layout of the facility (including a map), the history of the facility, and the site owner/operator history. Each of the units (including spills or other ill-defined areas where hazardous substances were contained or disposed or released) should be identified. In addition the characteristics of the unit where waste was located should be described (i.e., presence of liners, drums or tanks, etc.)

° Environmental Setting

This section should describe the media surrounding the facility--the relevant climactic, geological, hydrogeological, and topographical features. Maps, sketches and selected photographs should be included or attached. Also included in this section is a discussion of the target populations and environments--including public and private water supply ground and surface water intakes, protected areas, parks, wetlands, and affected irrigated areas.

° Waste Description

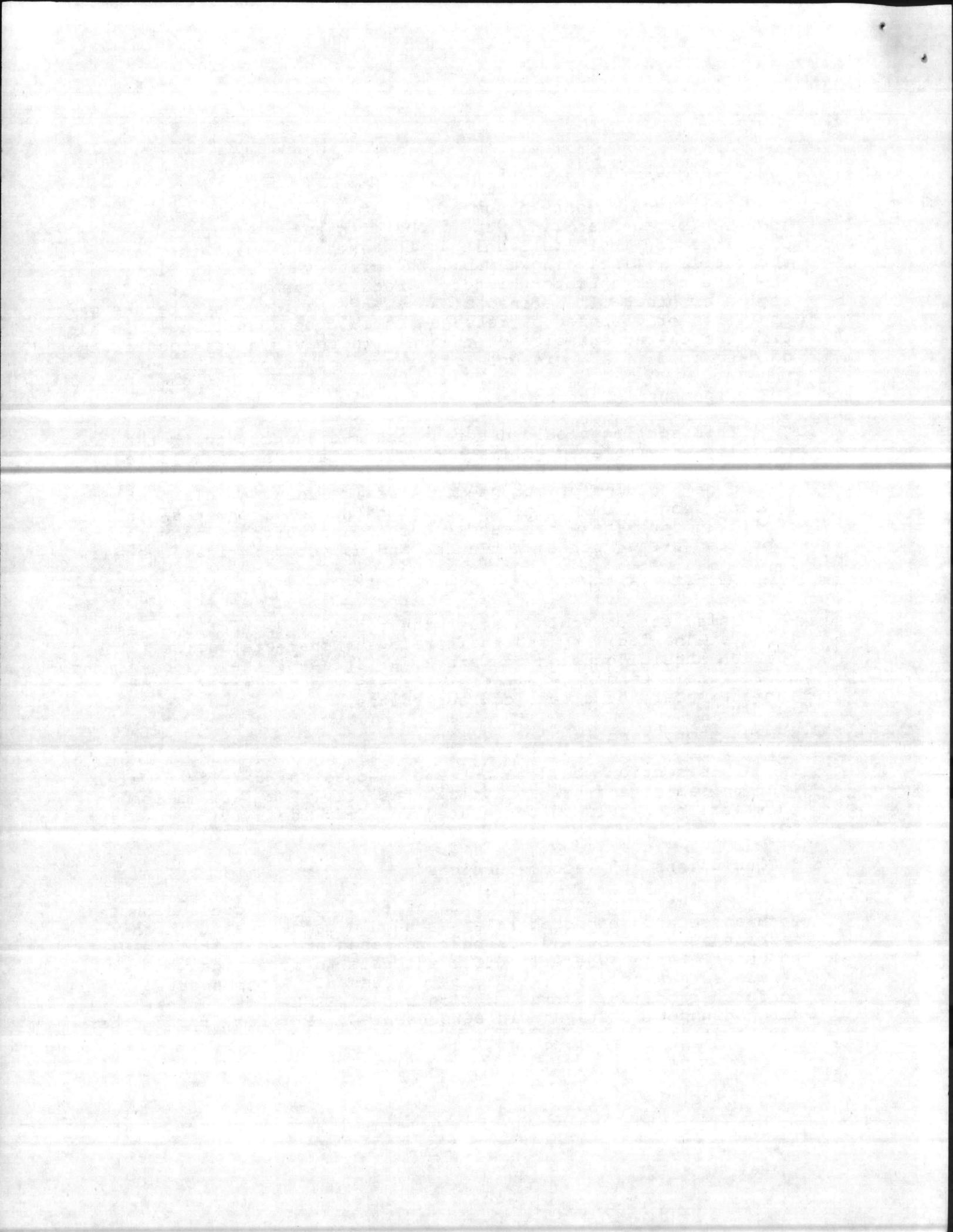
This section would discuss the types of each of the waste units found at the facility and their relevant characteristics. The discussion should focus on the characteristics of the wastes as they affect their tendency to cause releases via the air, ground water, surface water, or direct contact routes.

° Laboratory Results

This section would report and discuss the results of old (but reliable) and new analytical results. The information in this section should be correlated to a map identifying the sampling points.

° Conclusions and Recommendations

This section would present the findings and conclusions. Documented and suspected releases should be discussed in this section as well as findings that releases are soon or likely to occur. Areas where insufficient data to determine whether a release has occurred should be discussed. Recommendations for no further action, further action under CERCLA, or further action but not under CERCLA should be presented. Priority for further CERCLA action should be discussed.



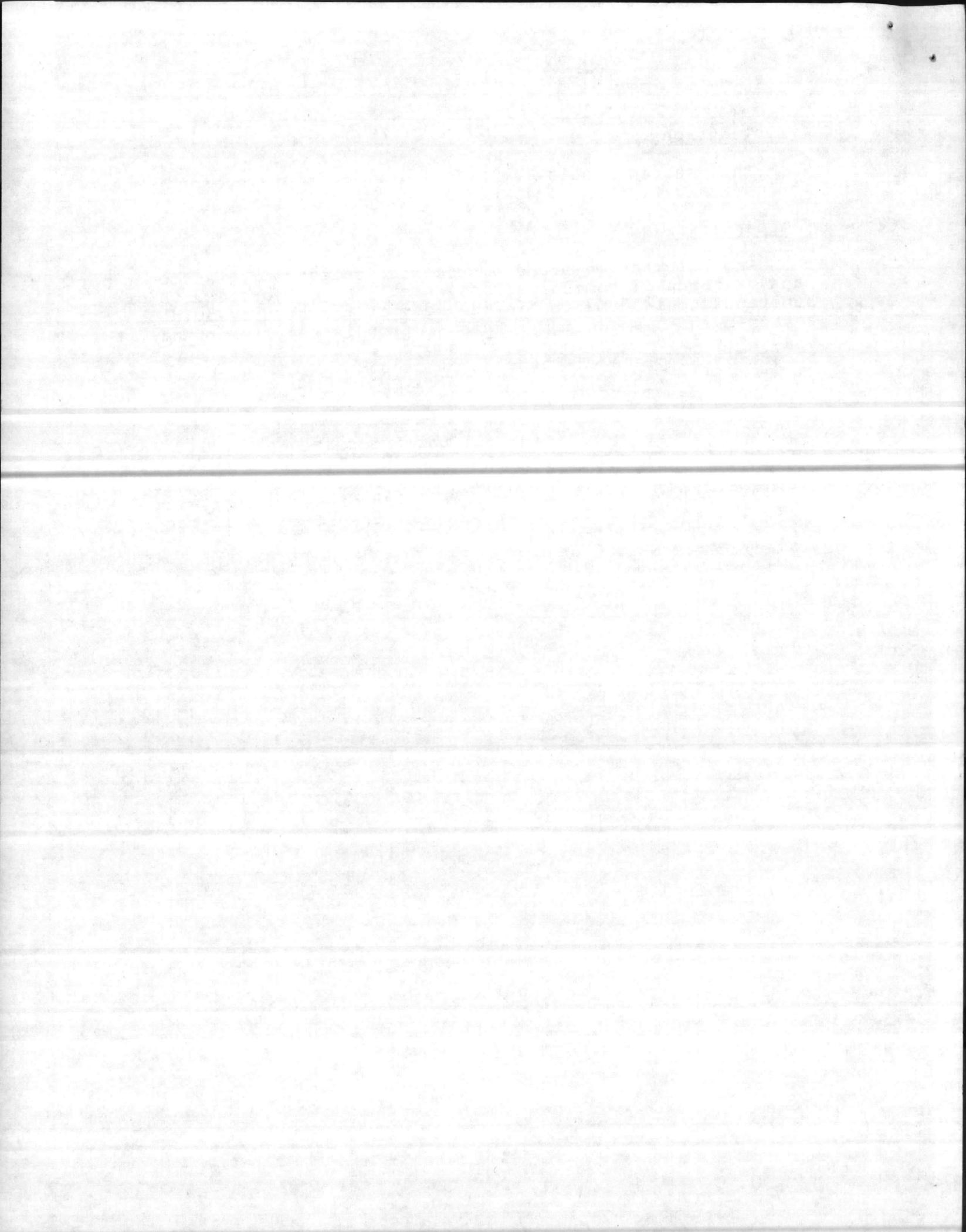
° Bibliography

This section would identify all sources of information used in the evaluation and preparation of the SI report.

° Appendices

Any relevant memorandum, reports, selected pages from reports, maps, records of communications, etc. that elaborate upon or substantiate information in the body of the report would be attached in this section. This section is very important. This section should contain all the source documents that substantiate a particular piece of information needed in scoring the site.

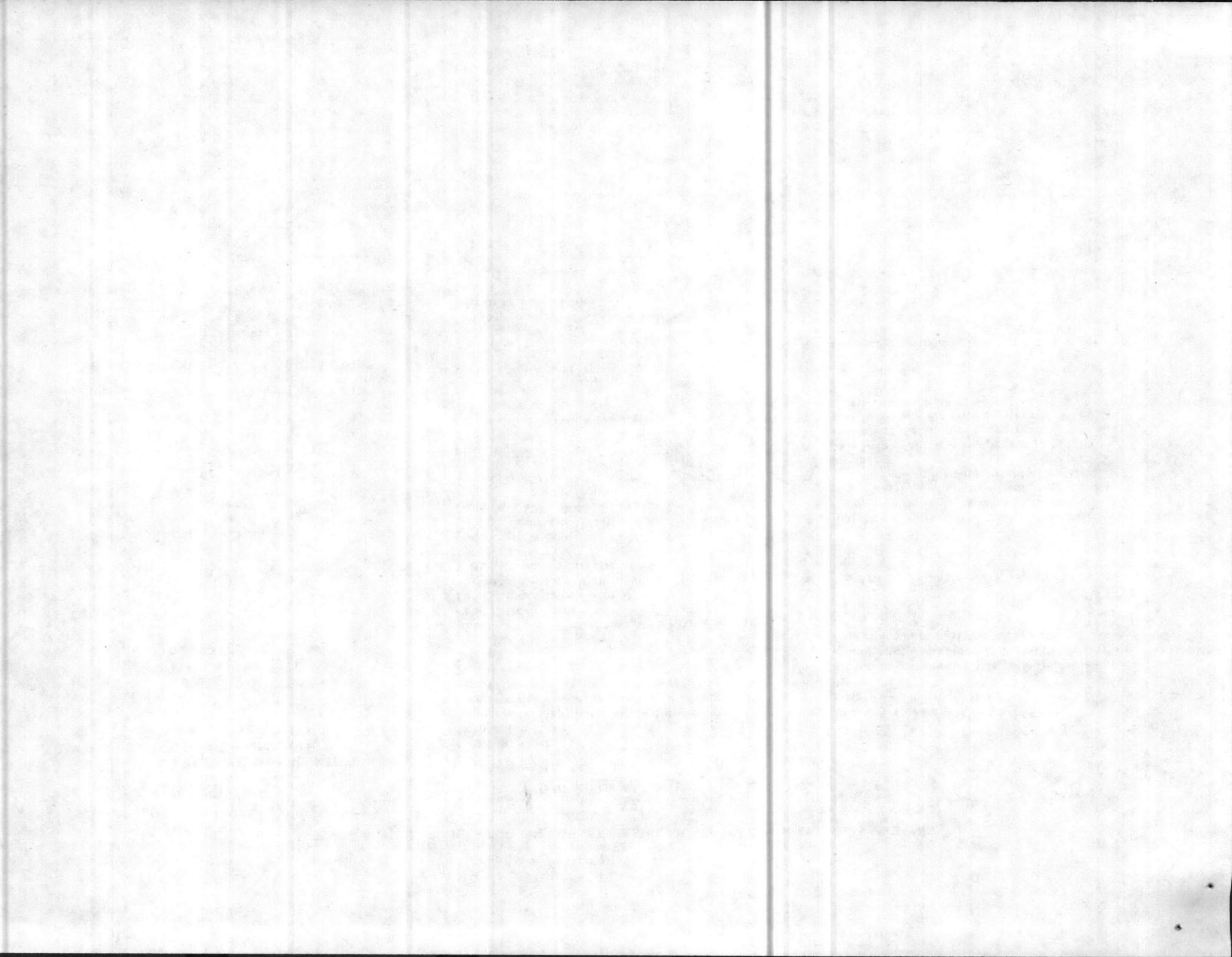
A site file containing all the information compiled and/or developed during the SI; plus the work, sampling and safety plans; and the final report and SI/HRS documentation forms must be consolidated and organized into a file unique to that site. This file will serve as the background for the SI and will become part of the documentation record for the site should it be eventually listed on the NPL.



APPENDIX I

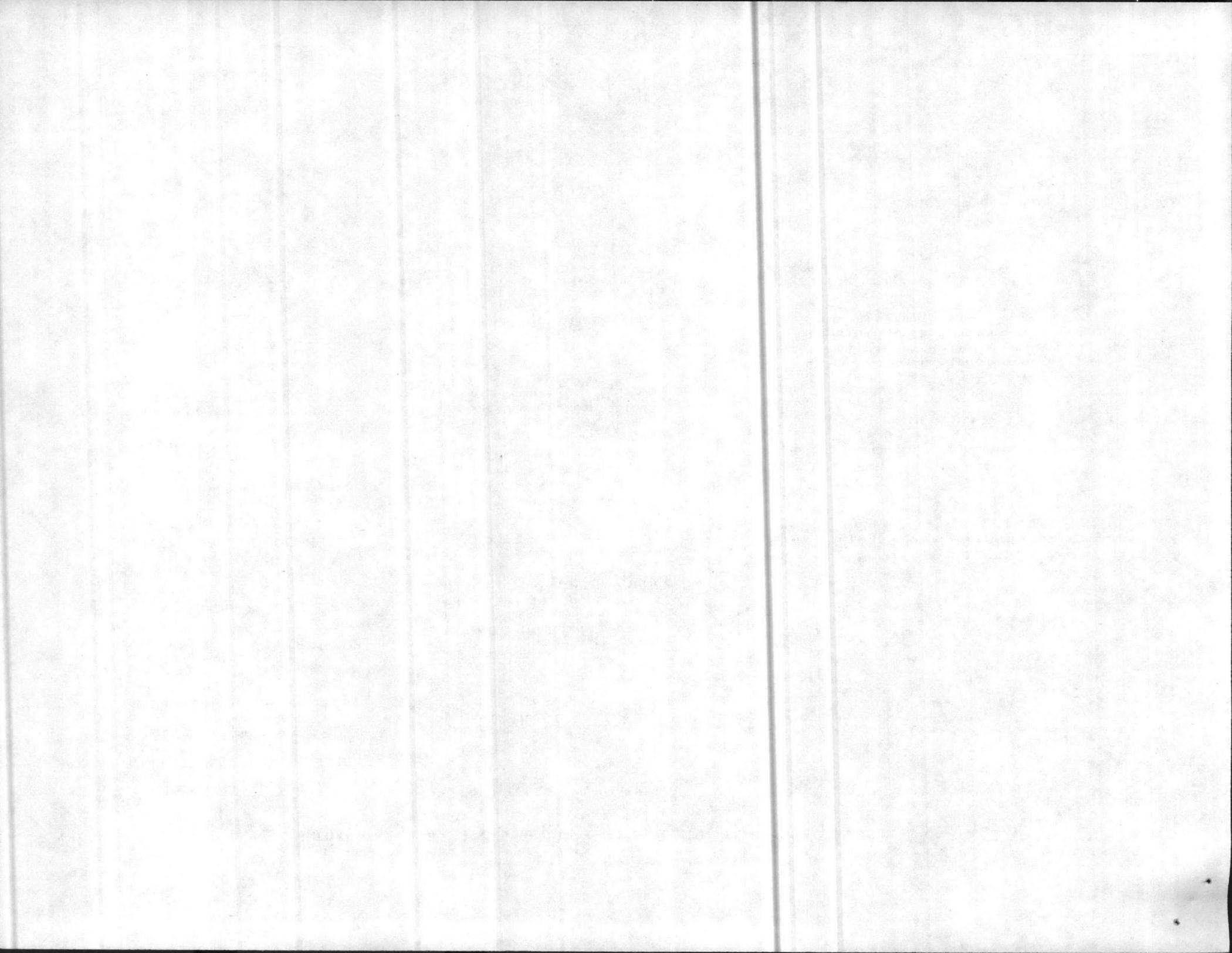
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/IRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
A. U.S. DEPARTMENT OF THE INTERIOR 1. U.S. Geologic Survey (USGS) Central and Regional Offices	Geologic Maps Orthophoto Maps Topographic Maps (latitude, longitude, slope, wetland determination, surface drainage, migration pathway identification) Aerial Photos National Parks, Monuments, Recreation Areas and Historic Sites Map Land Use and Land Cover Data Technical Geologic/Hydrogeologic Reports Water-Resources Investigations and Water- Supply Data Hydrologic Mapping Generic Geophysical Data Gauging Station Data Steam Gage Discharge Records Flood Prone Area Maps Historical and Out-of-Print Maps	<ul style="list-style-type: none"> ● Full U.S. Coverage Offers 7-1/2' and 15' Maps; 7-1/2' Most Valuable. ● Useful in determining site boundaries, land use calculating waste quantities and evaluating site operations both past and present. ● Tend to be regionalized. ● May be useful in determining site boundaries. ● May be useful in determining stream depths and evaluating discontinuities. ● May be used to identify potential wetland areas. ● May help evaluate site operations as they existed at the time of operation. ● May help evaluate site operations as they existed at the time of operation.
B. U.S. DEPARTMENT OF AGRICULTURE 1. Soil Conservation Service (SCS) Offices located in every county	Soil Surveys Soil Maps and Atlases (permeability, soil pH, depth to water table)	<ul style="list-style-type: none"> ● Generally describe only upper 5 to 6 ft. of soil.



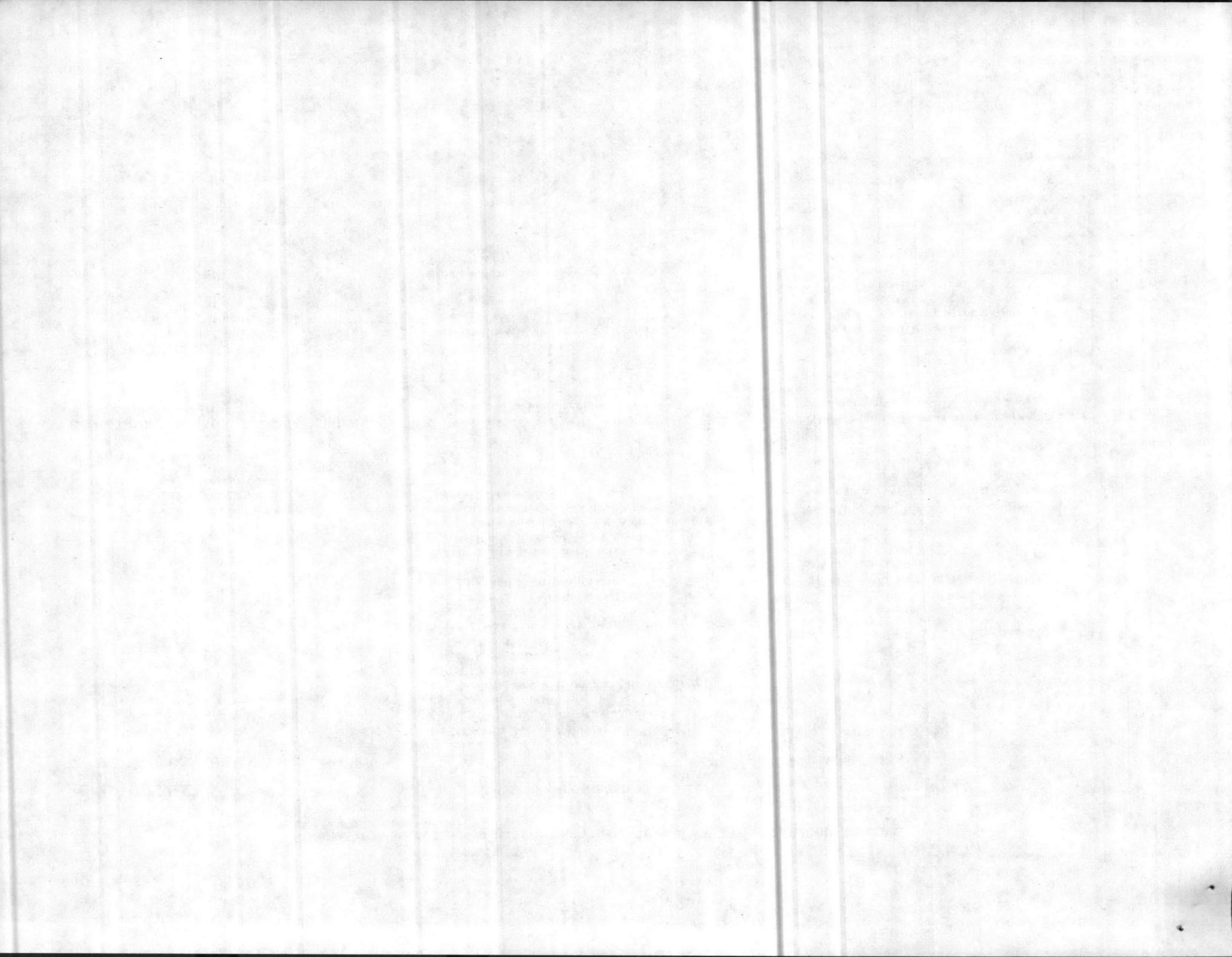
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/HRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
B. U.S. DEPARTMENT OF AGRICULTURE (Continued) 2. Agricultural Stabilization and Conservation Service (ASCS) Office co-located with the SCS offices	Crop Records Irrigated Acreage	<ul style="list-style-type: none"> ● Distinguish between food/forage crop irrigation and watering of turf.
C. U.S. DEPARTMENT OF THE INTERIOR 1. Fish and Wildlife Service	National Wetlands Inventory Maps Federally Endangered Species Data Records and Fish Kills Habitat and Resource Information	
D. U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	Flood Insurance rate maps	<ul style="list-style-type: none"> ● May identify potential wetland areas.
E. U.S. DEPARTMENT OF COMMERCE 1. Bureau of the Census	Current Figures and Demographics Congressional District Atlas	<ul style="list-style-type: none"> ● Use 1980 census data. ● Useful in determining population centers.
F. U.S. ARMY CORPS OF ENGINEERS	Wetland Determinations Dumping Records Discharge Records Aerial Photos	<ul style="list-style-type: none"> ● Useful in determining site boundaries land use calculating waste quantities and evaluating site operations both past and present. ● May identify potential wetland areas.
	Flood Prone Area Maps	



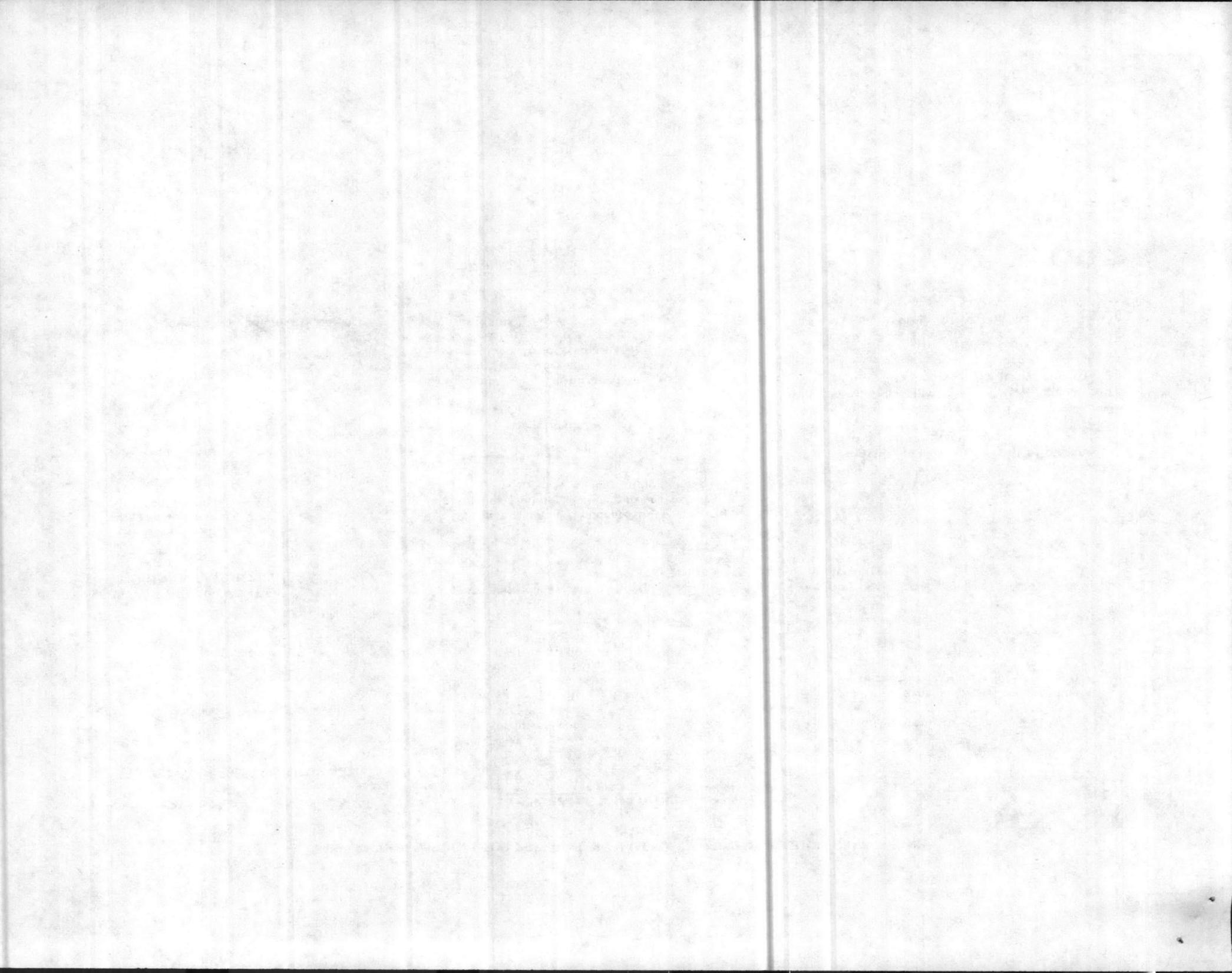
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/HRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
G. U.S. ENVIRONMENTAL PROTECTION AGENCY 1. Regional Offices	RCRA Permits and Applications NPDES Permits, Applications, Reports, and Notices of Violation Air Permits, Applications, and Reports CERCLA Actions TSCA Records Enforcement Actions Surface Water and Groundwater Reports Site History Site Owner/Operator Information Sampling and Monitoring Data	<ul style="list-style-type: none"> ● Be sure data meets regional QA/QC requirements.
2. Environmental Photographic Interpretation Center (EPIC)	Previous Site Inspection Information Waste Generators and Transporters Waste Containment/Extent of Contamination Aerial Photography and Interpretation Special Mapping	<ul style="list-style-type: none"> ● Useful in determining site boundaries, land use, calculating waste quantities and evaluating site operations both past and present.
H. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	Climatic data (1 yr., 24-hour rainfall, seasonal and annual precipitation and evaluation figures)	<ul style="list-style-type: none"> ● A minimum of 10-year averages required for seasonal figures.
I. STATE EPA OFFICES OR EQUIVALENTS (Water Resources, Solid Waste and Geology Departments)	Permits Files	<ul style="list-style-type: none"> ● Federally permitted releases (i.e., NPDES) not eligible for HRS consideration. ● Wastes granted state permits may still be eligible for consideration.
	Previous Site Inspection Information Waste Quantity Estimates	<ul style="list-style-type: none"> ● Containment of waste.



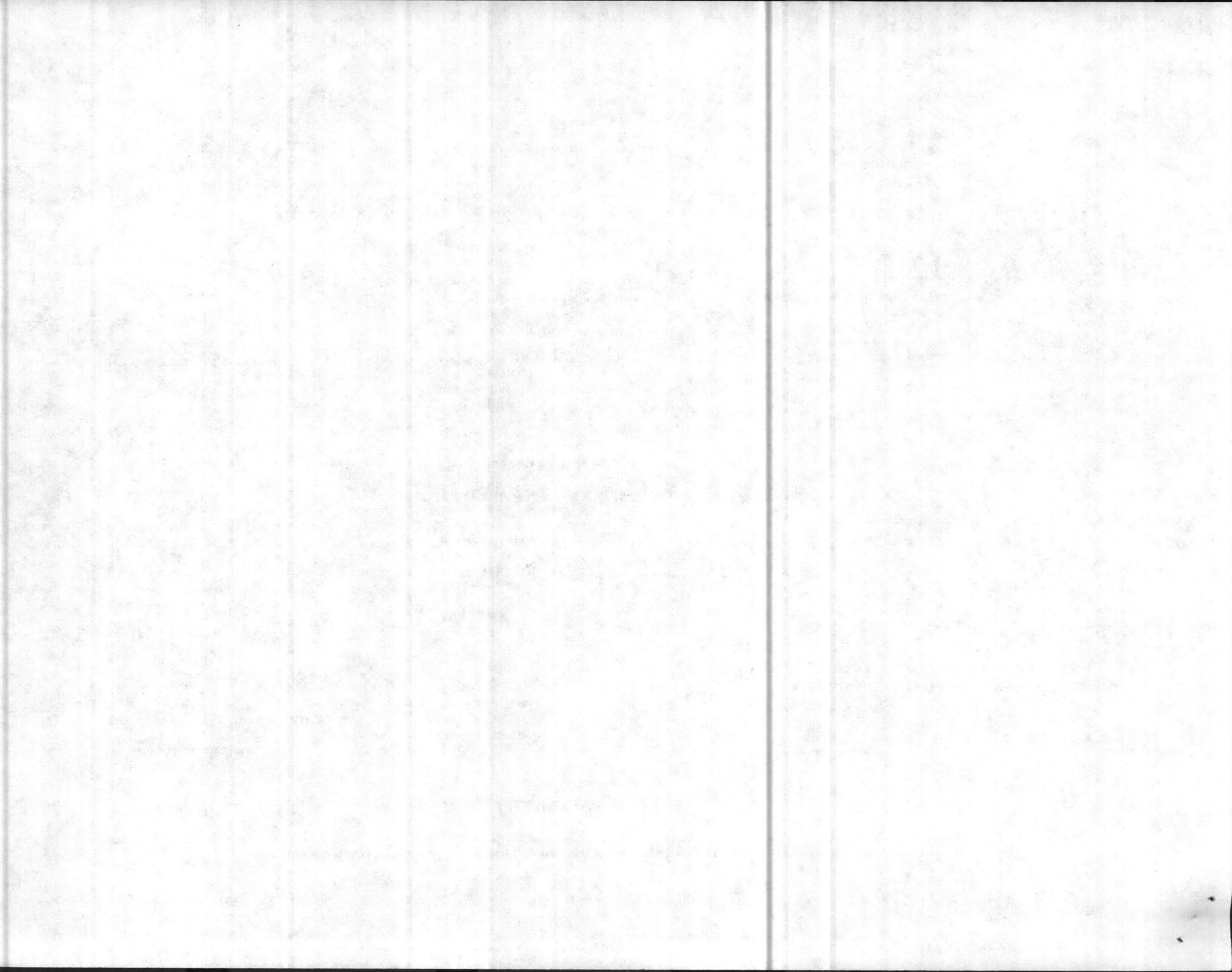
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/HRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
I. STATE EPA OFFICES OR EQUIVALENTS (Continued)	Site Owner Operator Information Water Supply Data Sampling and Monitoring Data Surface Water and Groundwater Reports Well Logs and Soil Boring Data Aquifer Information Air and Solid Waste Files	<ul style="list-style-type: none"> ● May differ from site owner. ● Be sure data meets QA/QC requirements. ● Use to determine aquifer interconnection.
J. STATE DEPARTMENT OF TRANSPORTATION	State and County Map	<ul style="list-style-type: none"> ● May be necessary in cases where USGS maps are outdated.
K. COUNTY OFFICES		
1. Assessor	Plat maps (distance to nearest off-site building, land use, distance to nearest population figures, number of buildings in a 2-mile radius) Land Ownership	<ul style="list-style-type: none"> ● Permission to access site must be obtained from the current land owner.
2. Health Department	Facility Inspection Information Water Supply Data Sampling and Monitoring Data Waste Generators and Transporters Complaints/Prior Releases Permits Site Plans	<ul style="list-style-type: none"> ● Also check if bottled water is being used due to contamination ● Be sure data meets QA/QC requirements.
3. Planning Commission/City Engineer	Liquid Waste Discharge Data Land Use Aerial Photos Land Use	<ul style="list-style-type: none"> ● May be useful in calculating the once-filled capacity of lagoons/surface, impoundments.
4. Zoning Department		



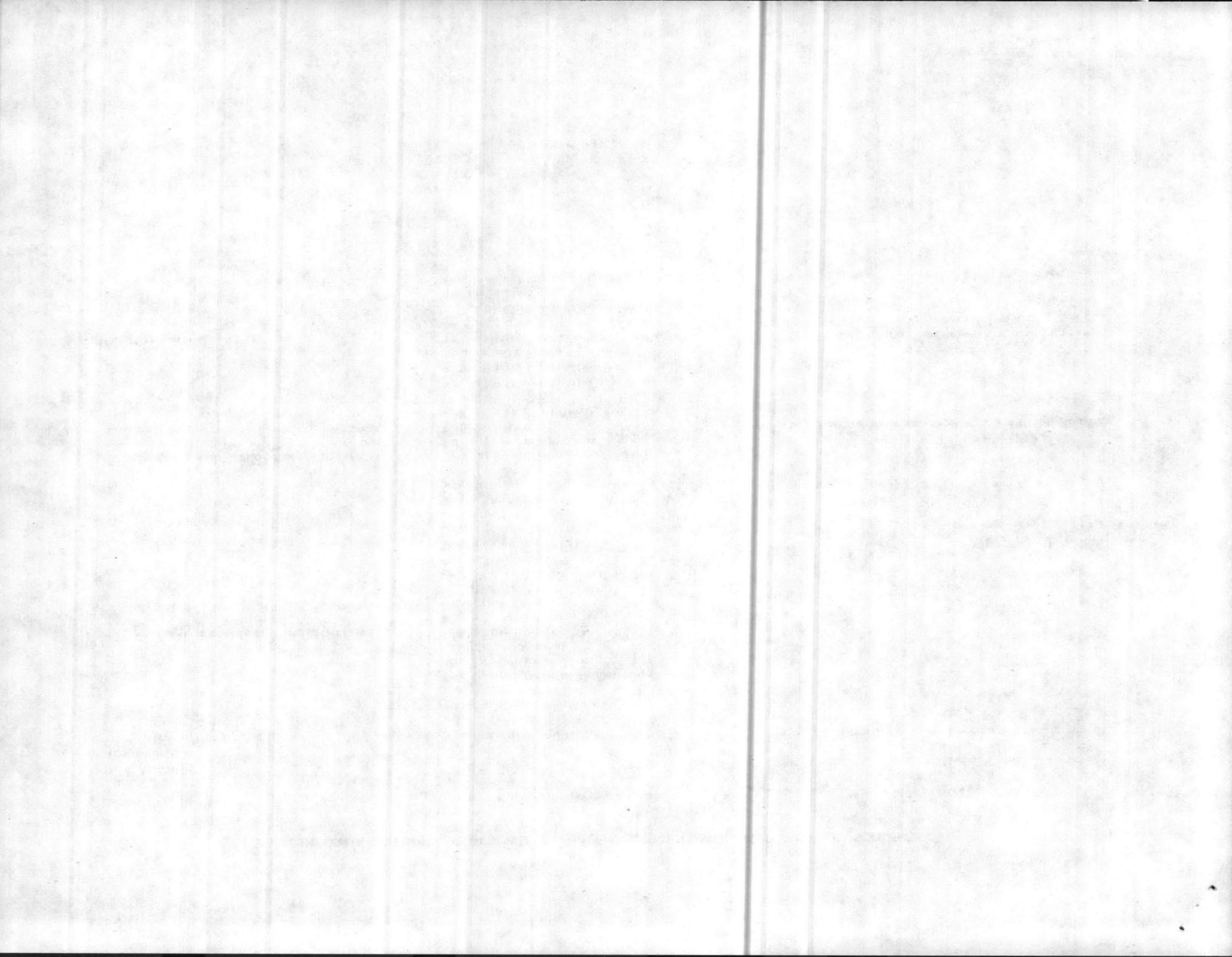
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/HRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
K. COUNTY OFFICES (Continued)		
5. Road Commission	Local Maps	
	Aerial Photos	
	Aerial Photos	
	Land Use Data	
	Irrigated Acreage	<ul style="list-style-type: none"> ● Distinguish between food/forage crop irrigation watering of turf.
6. Agricultural Extension Office		
L. LOCAL OFFICES		
1. Fire Department	Fire History	<ul style="list-style-type: none"> ● May use to determine if site is a certified fire and explosion threat.
	Explosion	
	Contingency Plans	
	Complaints	
	Inspection Data	
	Location of Sewers and Buried Mains	<ul style="list-style-type: none"> ● Check before drilling.
2. Water and Sewer Departments	Water Intake and Well Location Data	
	Population Served Figures	
	Aquifer Data	
	Well Depths	
	Location of Buried Lines	<ul style="list-style-type: none"> ● Check before drilling.
	Site Ownership	
	Local Industry Information	<ul style="list-style-type: none"> ● Identify other potential sources of contamination.
3. Electrical Utility Companies	Site Ownership History	
	Site Activities	
4. Chamber of Commerce	Census Figures and Demographics	<ul style="list-style-type: none"> ● Use 1980 census data.



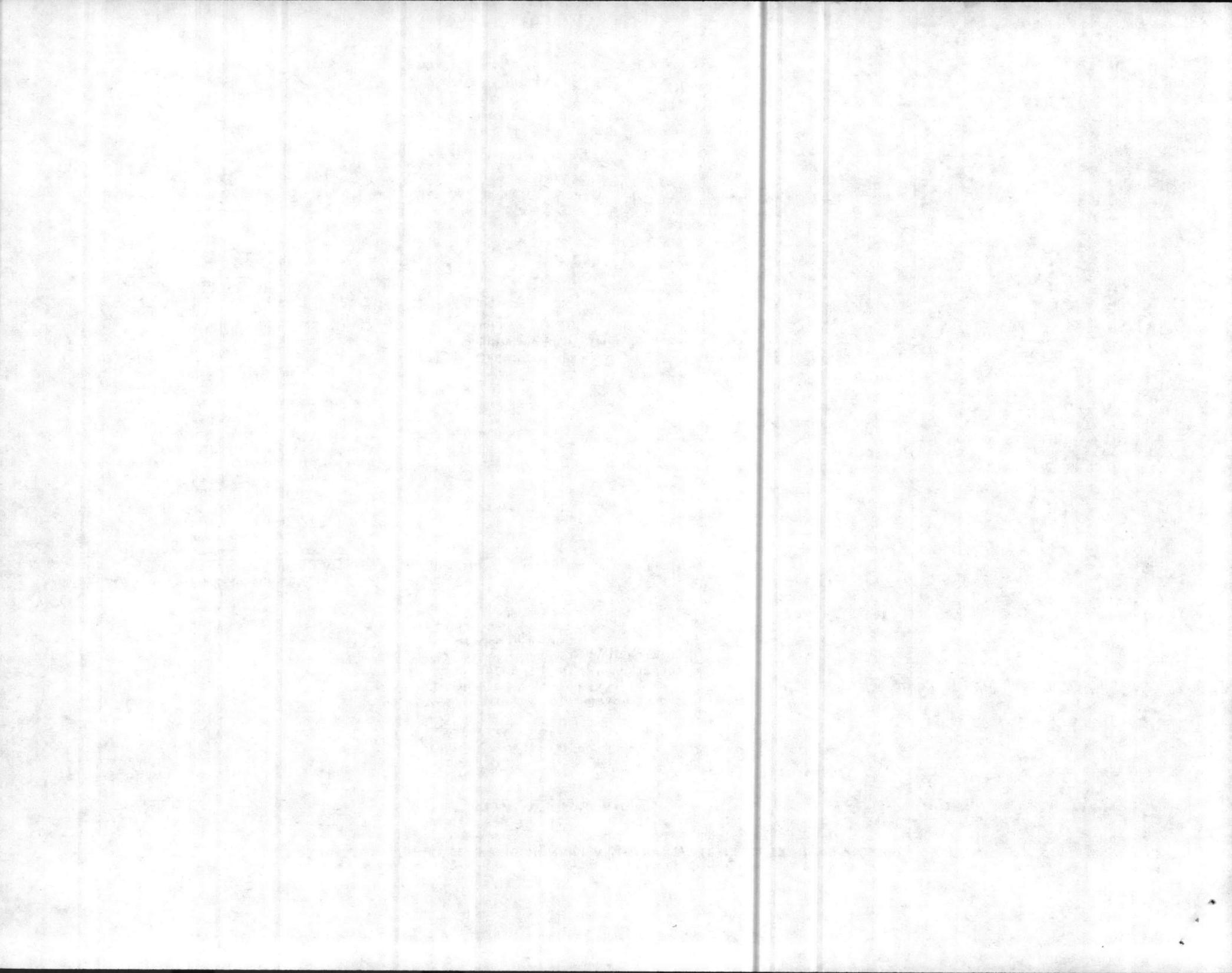
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/HRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
L. LOCAL OFFICES (continued)		
5. Citizens/Neighbors/ Former Company Employee	Site Activities and History	● Be sure those interviewed are reliable sources.
	Waste Quantity Estimates Site Accessibility Site Owner/Operator Information Site Fires or Explosions Complaints or Incidents Production Records Waste Type and Quantity Generator Records Site History Owner/Operator Information Site Accessibility Waste Containment Data Spill Records Permits Waste Storage and Disposal Methods	
6. Company Records and Site Officials		
	Site History Complaints	● Check sources
8. Trucking and Hauling Companies	Generator and Transporter Data Waste Type and Quantity	
9. Well Drillers	Well Locations Well Logs and Soil Boring Data Local Soil Geology Water Table and Aquifer Data Water Supply Information	● Be sure those interviewed are reliable sources.
10. Consultants	Permeability Figures - Soil Surface Water and Groundwater Reports Extent of Contamination Special Studies Sampling and Monitoring Data	● Be sure conclusions drawn are based on sound professional judgements before using. ● Be sure data meets QA/QC requirements.



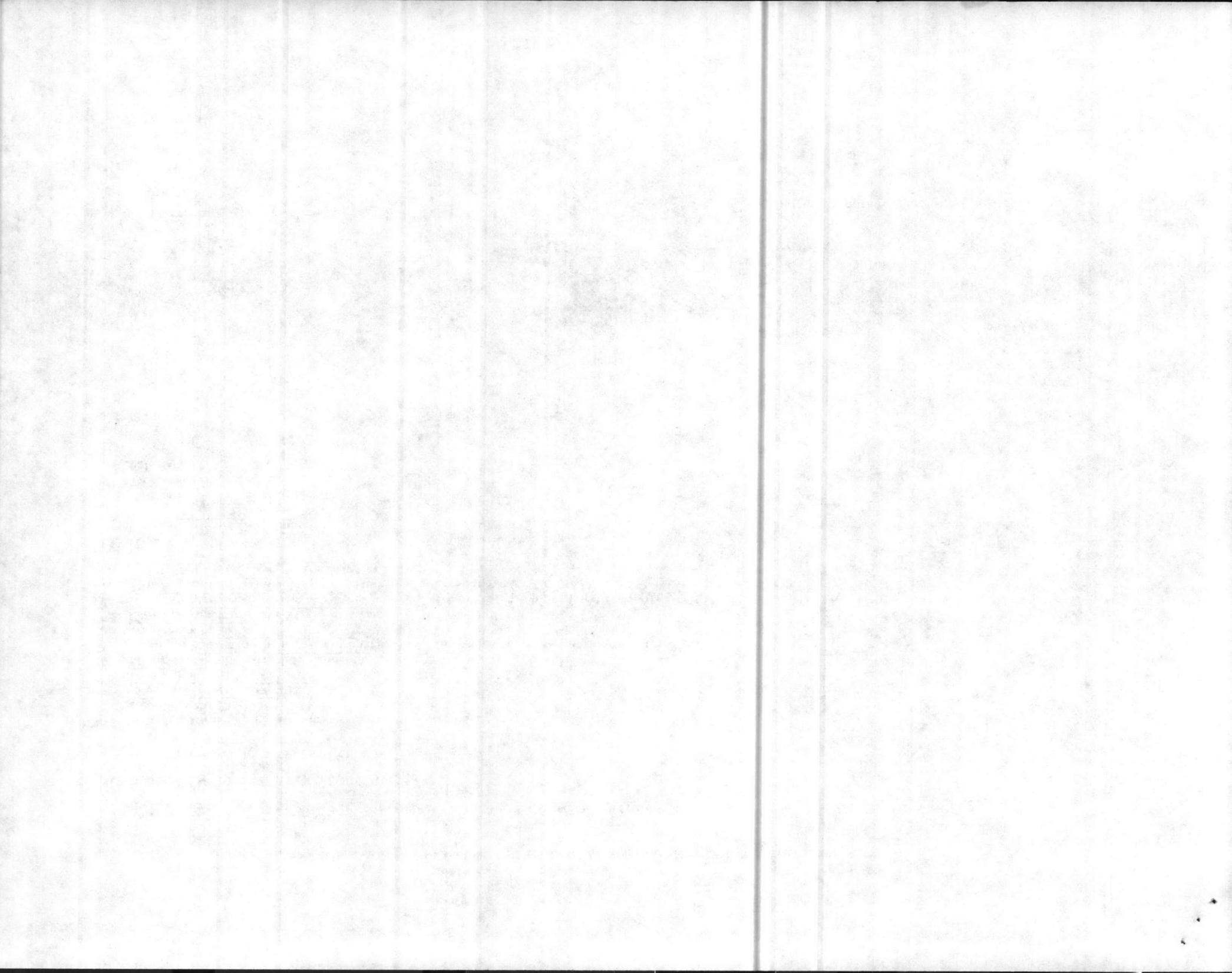
I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/IIRS SCORING

<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
L. LOCAL OFFICES (continued)		
11. Airports	Climatic Data (1-year, 24-hour rainfall, seasonal and annual precipitation and evaporation figures)	
12. Universities	Surface Water and Groundwater Studies Sampling and Monitoring Data Climatic Data (1-year, 24-hour rainfall, seasonal and annual precipitation and evaporation figures) Special Studies	• Be sure data meets QA/QC requirements.
M. CLIMATIC DATA REFERENCES		
1. <u>Climatic Atlas of the United States</u> , U.S. Department of Commerce, National Climatic Center, Asheville, North Carolina, 1979	Annual Precipitation and Evaporation Maps	
2. <u>Rainfall Frequency Atlas of the United States</u> , Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C. 1963	1-year, 24-hour Rainfall Map.	
N. TOXICOLOGY AND HAZARDOUS SUBSTANCE REFERENCES		
1. <u>Chemical Hazard Response Information System</u>	Incompatibility, Physical State, Flammability and Health Hazards Toxicology	
2. <u>Hamilton and Hardy, Industrial Toxicology</u>	Toxicity	
3. <u>Sax, Dangerous Properties of Industrial Materials</u> , 4th, 5th or 6th Editions		



I. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION/IRS SCORING

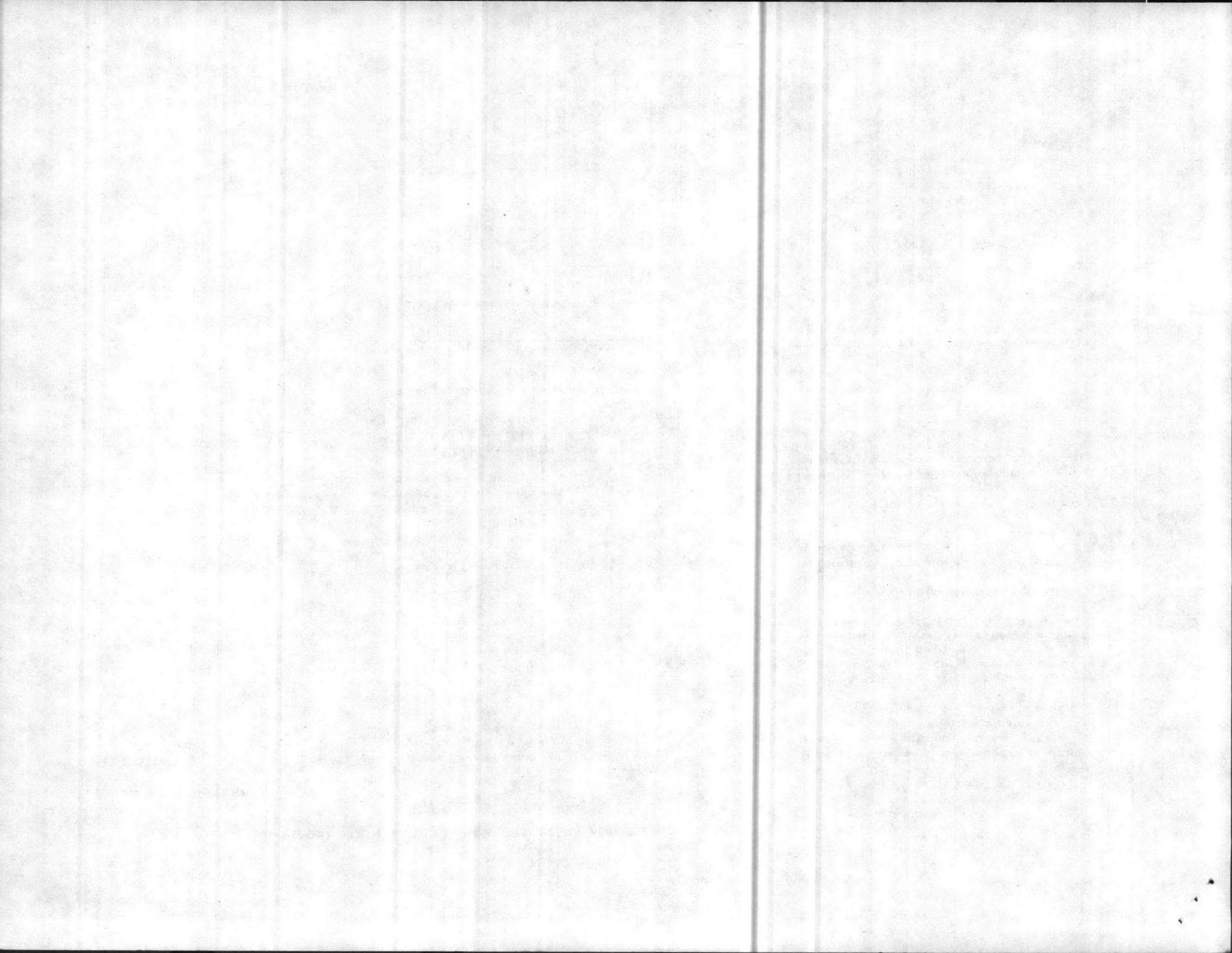
<u>SOURCE</u>	<u>TYPE OF INFORMATION</u>	<u>NOTES</u>
N. TOXICOLOGY AND HAZARDOUS SUBSTANCE REFERENCES (Continued)		
4. <u>Patty, Industrial Hygiene and Toxicology</u>	Toxicology	
5. <u>ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, 1985-86</u>	TLV's	
6. <u>Miedl, Hazardous Materials Handbook</u>		
7. <u>Hauley, Condensed Chemical Dictionary</u>	Describes Processes and Generic Names	
8. <u>The Merck Index</u>	Physical State, CAS numbers	
9. <u>CRC Handbook of Chemistry and Physics</u>	Physical State	
10. <u>NI:PA Hazardous Materials Manual</u>	Toxicity, Ignitability and Reactivity	
11. <u>JRB Associates, Methodology for Rating the Hazard Potential of Waste Disposal Sites</u>	Persistence	
12. <u>Hazardous Waste Management Law, Regulations, and Guidelines for the Handling of Hazardous Waste; California Department of Health, Sacramento, California, February 1975</u>	Incompatibility	



APPENDIX II

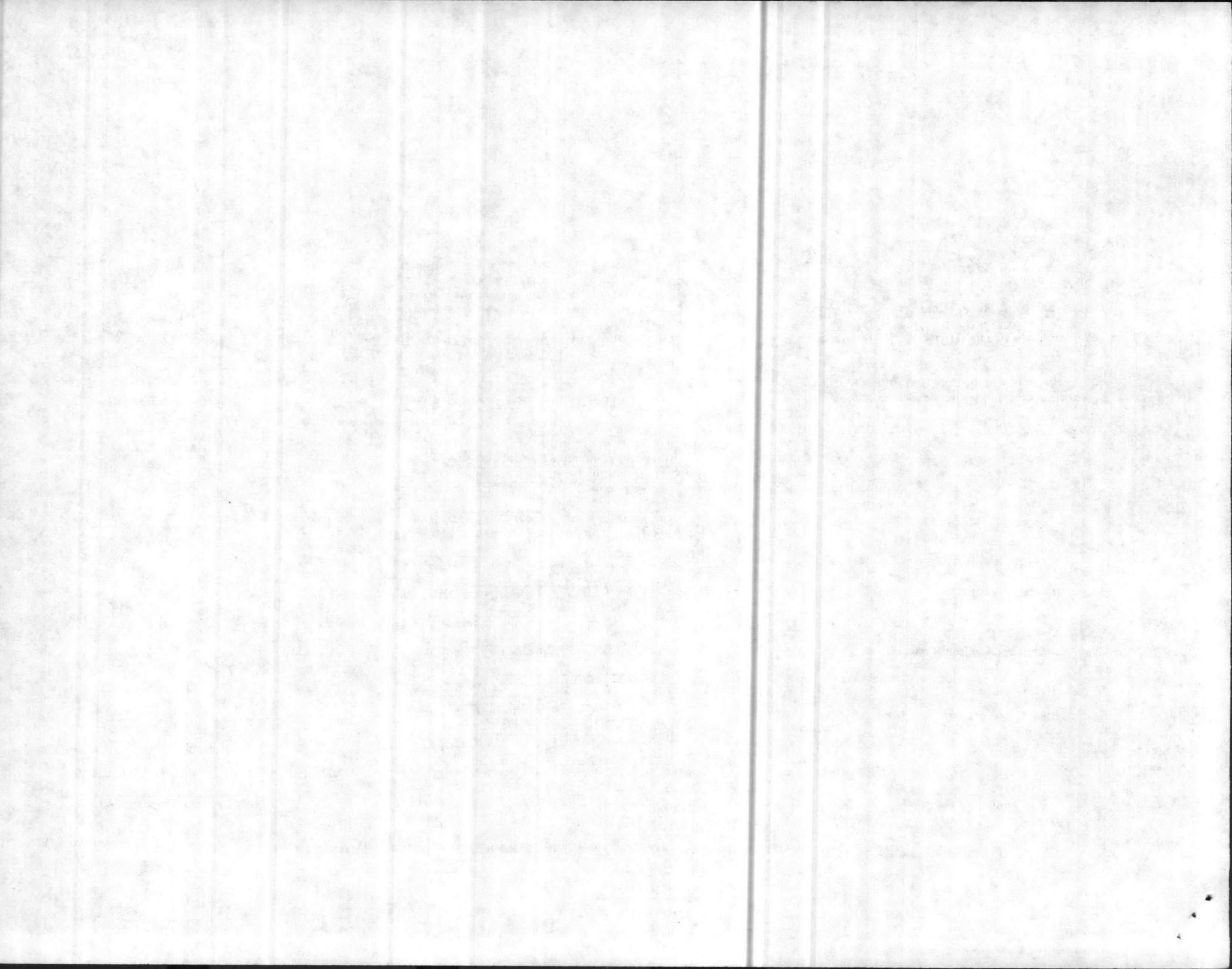
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IIRS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
A. SITE HISTORY	<p>Company Records and Site Officials Former Company Employees Citizens or Neighbors</p> <p>Newspapers USGS Topographic Maps State or County Road Commissions</p> <p>County Assessor Utility Companies USEPA State EPA Office or Equivalent</p> <p>Chamber of Commerce</p>	<ul style="list-style-type: none"> ● The type of information supplied by company records and site officials may vary greatly from that supplied by former employees, citizens or neighbors. Use facts, not hearsay. ● Supply latitude and longitude data. ● May supply more current area maps than the USGS topographic maps. ● May reveal the current site owner, if in question. ● May reveal the current site owner, if in question. ● Good source of information on current site status. ● Be careful to check into other possible contamination sources.
B. WASTE TYPES AND CHARACTERISTICS	<p>Company Records and Site Officials Former Company Employees Citizens or Neighbors</p> <p>Previous Site Inspection Data - USEPA, State EPA or equivalent, Consultants, or Health Department</p> <p>The following are Toxicology and Hazardous Substance References:</p> <ol style="list-style-type: none"> 1. <u>Chemical Hazard Response Information System</u> 2. Hamilton and Hardy, <u>Industrial Toxicology</u> 3. Sax, <u>Dangerous Properties of Industrial Materials</u> 	<ul style="list-style-type: none"> ● The type of information supplied by company records and site officials may vary greatly from that supplied by former employees, citizens, or neighbors. Use facts, not hearsay. ● Incompatibility, physical state, flammability, and health hazards. ● Toxicology ● Toxicity



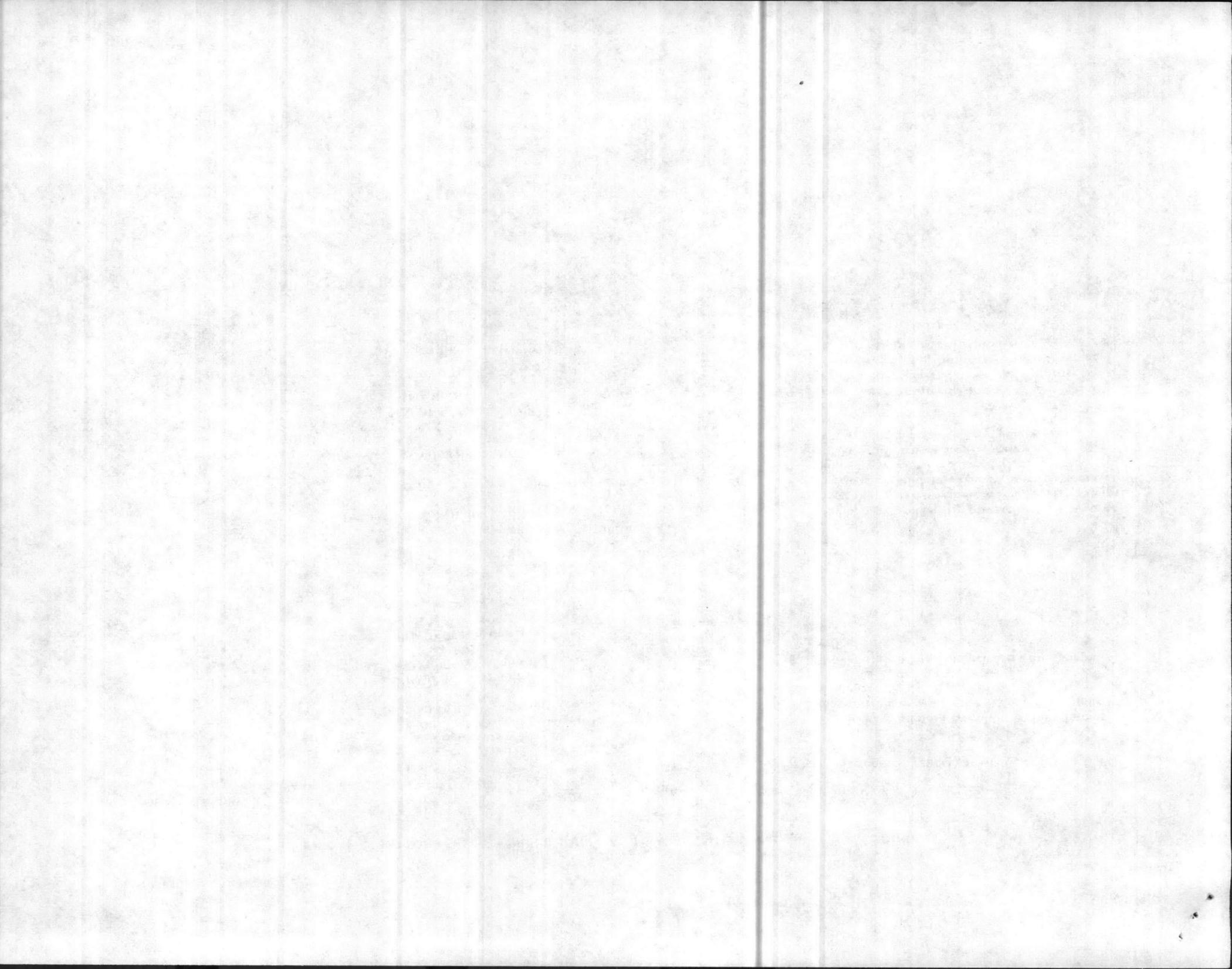
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IIRS SCORING

TYPE OF INFORMATION	SOURCE	NOTES	
B. WASTE TYPES AND CHARACTERISTICS (Continued)	4. <u>Patty, Industrial Hygiene and Toxicology</u>	● Toxicology	
	5. <u>ACGTH, Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, 1985-86</u>	● TLV's	
	6. <u>Miedl, Hazardous Materials Handbook</u>		
	7. <u>Hauley, Condensed Chemical Dictionary</u>	● Describes processes and generic names.	
	8. <u>The Merck Index</u>		
	9. <u>CRC Handbook of Chemistry and Physics</u>	● Physical State.	
	10. <u>NFPA Hazardous Materials Manual</u>	● Toxicity, ignitability, and reactivity.	
	11. <u>JRB Associates, Methodology for Rating the Hazard Potential of Waste Disposal Sites</u>	● Persistence	
	12. <u>Hazardous Waste Management Law, Regulations, and Guidelines for the Handling of Hazardous Waste; California Department of Health, Sacramento, California, February 1975.</u>	● Incompatibility	
	C. WASTE QUANTITY	Company Records and Site Officials	● Be sure that waste quantity estimates are based upon facts from reliable sources.
		Former Company Employees Citizens and Neighbors 103(C) CERCLA Notification Forms	● Be careful of reliability; Forms are completed by PRP's.
		Previous Site Inspection Data - USEPA, State EPA or Equivalent, Consultants, or Health Department Generators and Transporters	● Look for actual counts or measurements made on-site.



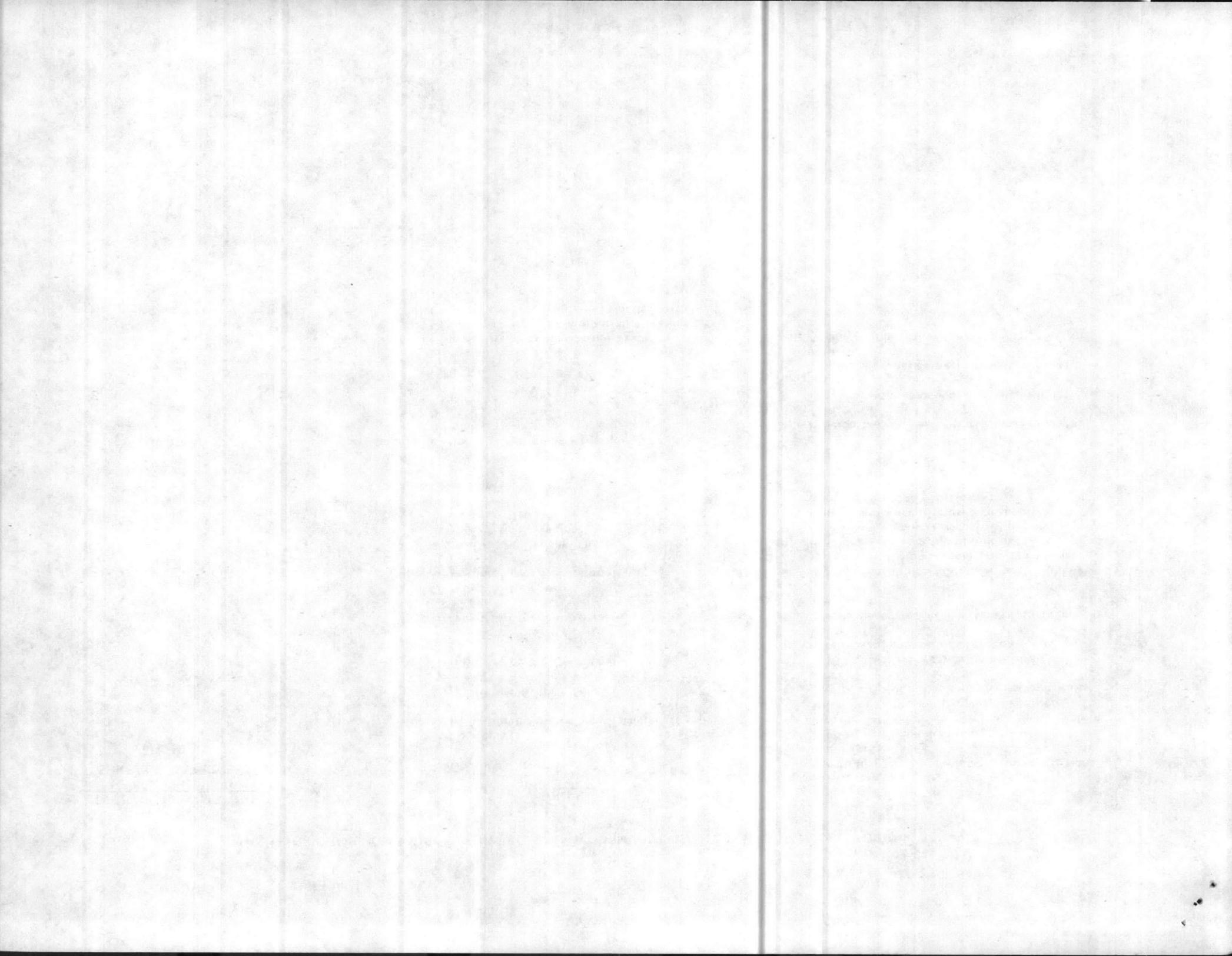
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IHS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
D. AQUIFER INFORMATION	USGS	<ul style="list-style-type: none"> ● Hydrogeologic reports available but tend to be regionalized.
	Soil Conservation Service Water and Sewer Departments Well Drillers/Well Logs	<ul style="list-style-type: none"> ● Provides useful data on public supply systems. ● May provide a useful guide in determining depth to aquifers.
	USEPA State EPA or Equivalents	<ul style="list-style-type: none"> ● Provides useful data on private water supply wells.
	Health Department Consultants	
E. GROUNDWATER SUPPLY DATA	USGS	<ul style="list-style-type: none"> ● May be used to identify private wells in an area generally served by public water supply systems. ● Provides useful data on public supply systems, including service area boundaries. ● 1980 census figures may be useful in determining population served by water supply wells. ● Good source of information on private water supply wells. Generally aware of current ground-water usage in the site vicinity. ● Provide data on irrigation wells.
	USEPA - Public Water Supply Division Well Drillers/Well Logs	
	Water and Sewer Departments	
	U.S. Bureau of the Census	
	State EPA or Equivalent Health Department	
	Agricultural Extension Office Consultants	



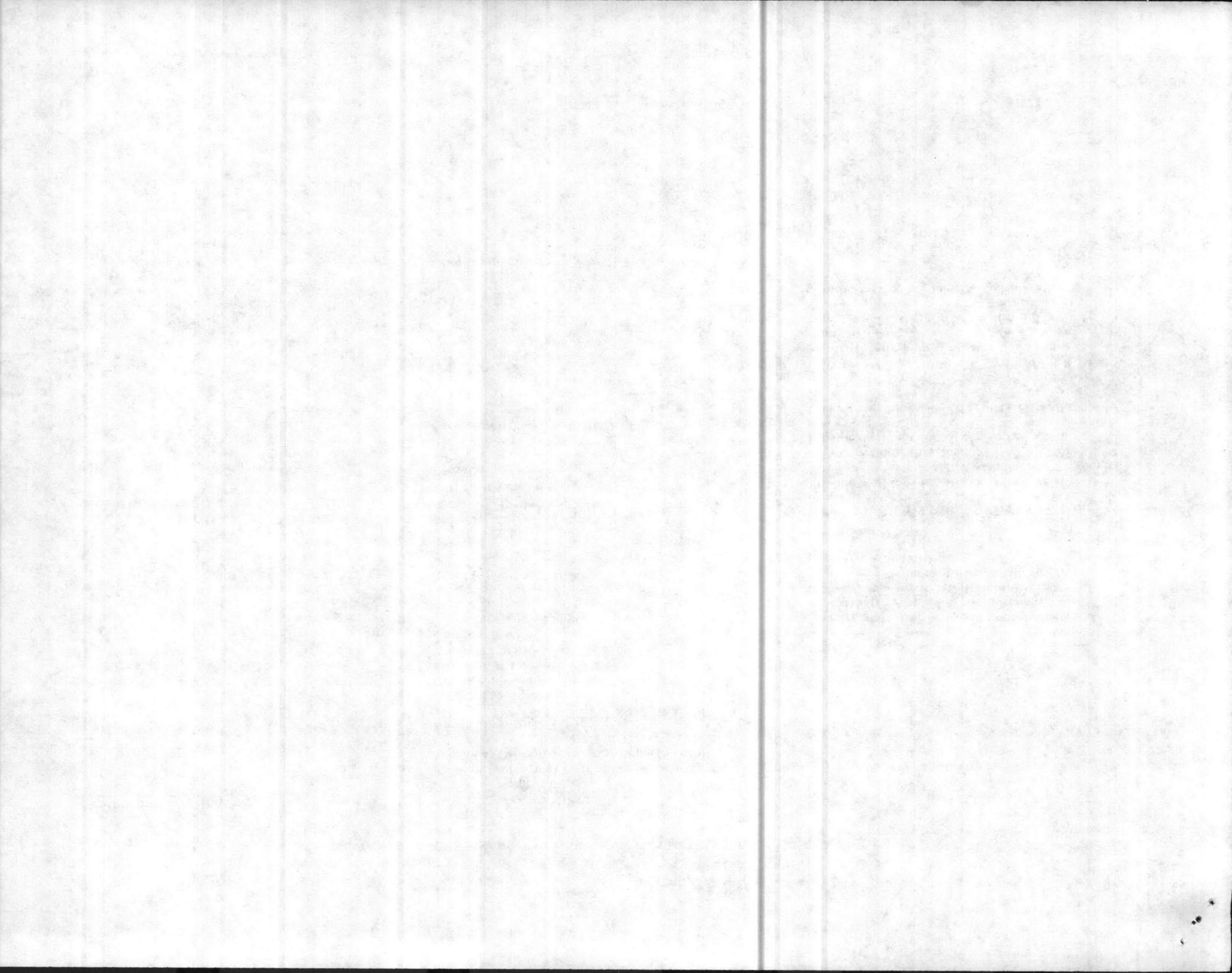
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IIRS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
F. SURFACE WATER DATA	USGS Topographic Maps USGS Reports USEPA - Public Water Supply Division U.S. Fish and Wildlife Service U.S. Bureau of the Census Nearby Residents and Citizens Chamber of Commerce Water and Sewer Departments Agricultural Extension Office State EPA or Equivalent Company Officials Consultants	<ul style="list-style-type: none"> ● Use to identify the surface water migration pathway. ● Tend to be regionalized. ● Provide data on public drinking supply system intake locations and populations served. ● May be helpful in determining surface water use. ● 1980 Census figures may be useful in determining populations served by surface water intakes. ● Useful sources of information on surface water use. ● Provide useful information on public supply systems, including service area boundaries. ● Provides data on irrigation intakes. ● May identify private industrial use wells. Note if wells are also used to supply drinking water to plant workers.
G. CLIMATIC DATA	National Oceanic and Atmospheric Administration Airports Universities Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Asheville, North Carolina, 1979	<ul style="list-style-type: none"> ● Provide seasonal as well as annual climatic data. ● Provide seasonal as well as annual climatic data. ● Provide seasonal as well as annual climatic data. ● Annual precipitation and evaporation maps.



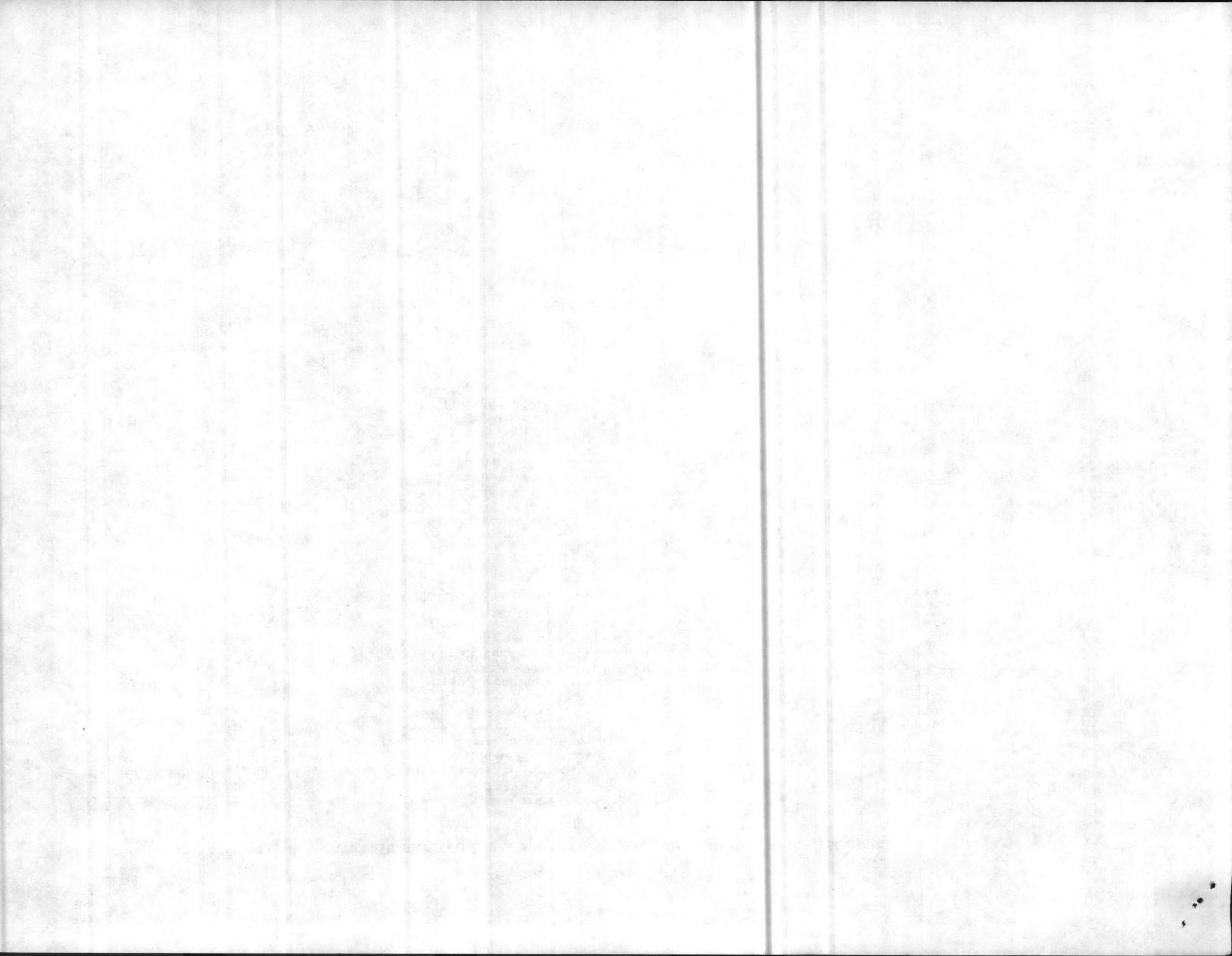
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IHS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
G. CLIMATIC DATA (Continued)	Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C. 1961	<ul style="list-style-type: none"> ● 1-Year, 24-hour rainfall map.
H. DEMOGRAPHICS	U.S. Bureau of the Census Chamber of Commerce Planning Commission/City Engineer Zoning Department USGS Topographic Maps County Assessor's Office	<ul style="list-style-type: none"> ● Census data and demographics provided. ● Provide land use data. ● House counts may be used to determine total populations. Also allow measurements for distance to nearest off-site building. ● Plat maps may be useful in calculating populations and distances.
I. PERMEABILITY OF THE UNSATURATED ZONE	Soil Conservation Service/Soil Surveys Well Drillers/Well Logs Consultants USGS Agricultural Extension Office State EPA or Equivalent	<ul style="list-style-type: none"> ● Generally describe only the upper 5 to 6 ft. of soil. ● Provide well logs for all registered wells. ● May provide site-specific data obtained through on-site permeability testing. ● Provide well logs for all registered wells. ● Provides well logs for all registered wells.
J. PERMITS	USEPA Offices Company Records and Site Officials Local Air Agencies	<ul style="list-style-type: none"> ● Look for RCRA, NPDES, TSCA, and FIFRA permits. Note permit numbers, issue and expiration dates. ● Look for special state waste disposal permits. What may be considered non-hazardous on state permits may be eligible for consideration under CERCLA.



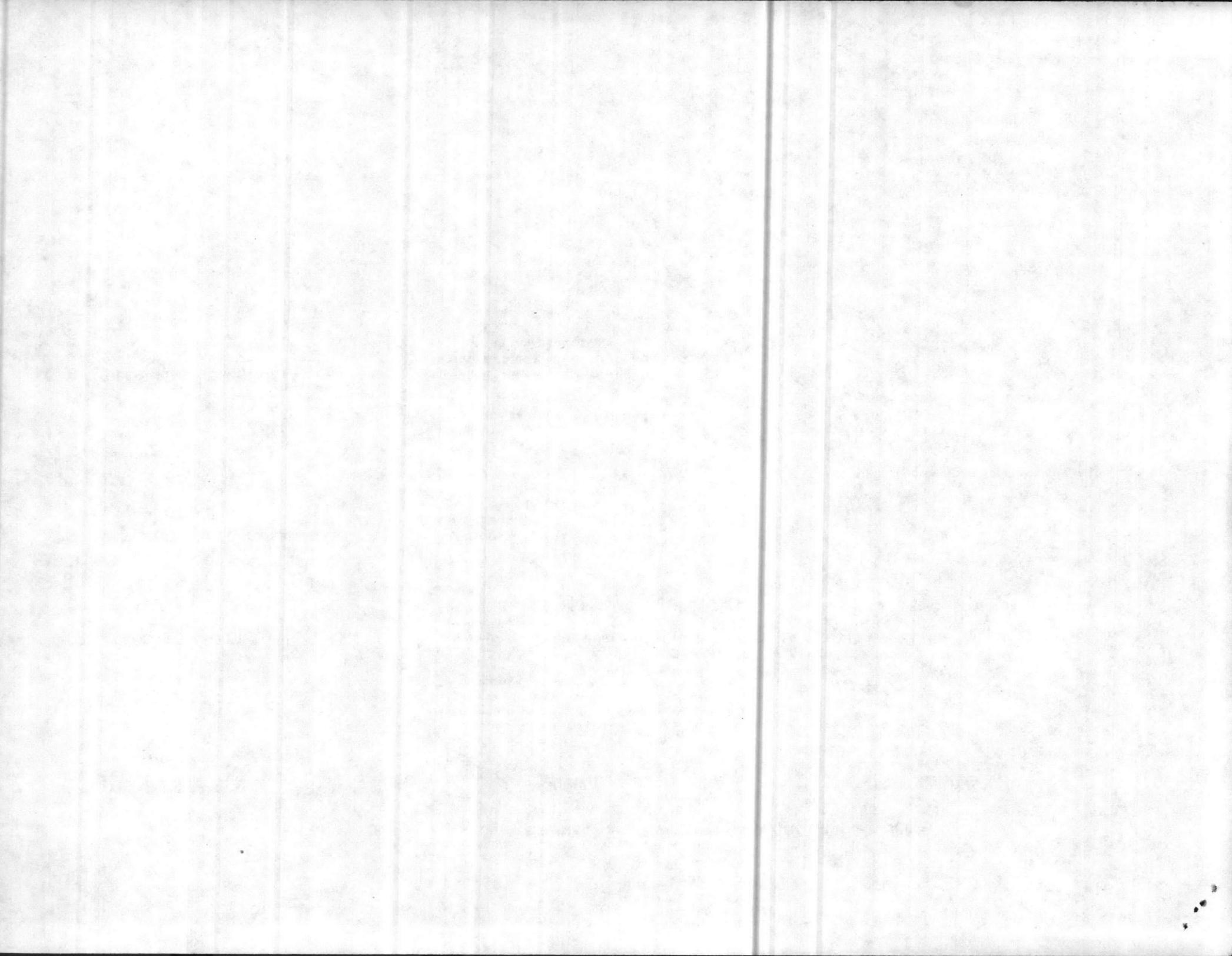
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION IHS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
K. SITE ACCESSIBILITY	Previous Site Inspection Data - USEPA Offices, State EPA or Equivalent Consultants, or Health Department. Site Officials Citizens or Neighbors	
L. WASTE CONTAINMENT	Company Records and Site Officials Previous Site Inspections - USEPA Offices, State EPA or Equivalent, Consultants, or Health Department Citizens or Neighbors Planning Commission/City Engineer	<ul style="list-style-type: none"> ● Look for site plans on file with city engineer.
M. SITE AND INTERVENING TERRAIN SLOPES	USGS Topographic Maps Company Record Previous Site Inspection Data - USEPA Offices, State EPA or Equivalent, Consultants, or Health Department.	<ul style="list-style-type: none"> ● Calculation possible from contour lines. ● Look for facility plan sheets.
N. WETLANDS	USGS Topographic Maps U.S. Fish and Wildlife Service Army Corps of Engineers	
O. FEDERAL SPECIES DATA (Critical habitats)	U.S. Fish and Wildlife Service	



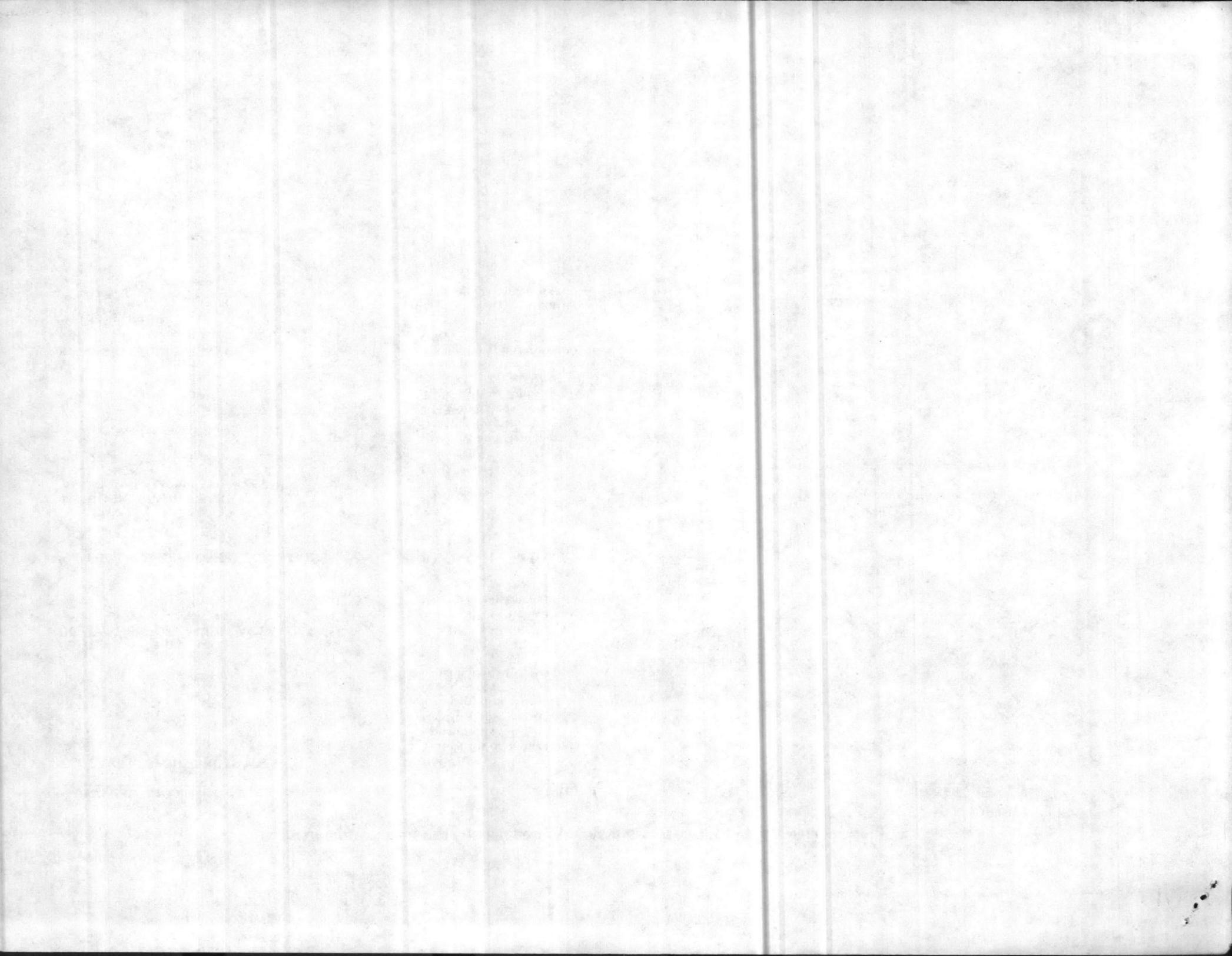
II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION HRS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
P. LAND USE DATA	USGS County Assessor Agricultural Extension Office Planning Commissions/City Engineer Zoning Department Chamber of Commerce	<ul style="list-style-type: none"> ● Provide irrigation data.
Q. FLOOD PLAIN DATA	U.S. Department of Housing and Urban Development Local Insurance Companies USGS Army Corps of Engineers	<ul style="list-style-type: none"> ● Flood insurance rate maps indicate 100 and 200-year flood plains. ● Have flood insurance rate maps on-hand.
R. SAMPLING AND MONITORING DATA	USEPA Offices Consultants State EPA or Equivalents USGS Health Department Local Air Agencies Universities Company Records and Site Officials	<ul style="list-style-type: none"> ● Generally only provides data on drinking water wells.
S. FIELD MEASUREMENT DATA	Previous Site Inspections - USEPA, State EPA or Equivalents, Consultants, or Health Department	



II. INFORMATION SOURCES FOR PRELIMINARY ASSESSMENT/SITE INSPECTION HRS SCORING

<u>TYPE OF INFORMATION</u>	<u>SOURCE</u>	<u>NOTES</u>
T. PAST RESPONSE ACTIVITIES	USEPA State EPA or Equivalents Consultants Health Department Company Records and Site Officials Newspapers Neighbors and Citizens	
U. PAST ENFORCEMENT ACTIVITIES	USEPA Regional Office State EPA or Equivalents Health Department	
V. FIRE AND EXPLOSION CONDITIONS	Fire Department (State and Local Fire Marshall) Citizens and Neighbors	
W. WORKER AND NEARBY POPULATION ESTIMATES	Hospitals Union Halls Citizens and Neighbors Health Department USEPA Offices State EPA or Equivalents	<ul style="list-style-type: none"> ● Provides direct contact/incident data. ● Records of complaints on facility practices available.
X. IRRIGATION DATA	Agricultural Extension Offices USGS State Agencies Agricultural Stabilization and Conservation Service	





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D. C. 20460

JUL 24 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Additional Interim Guidance for FY'87 Records of Decision

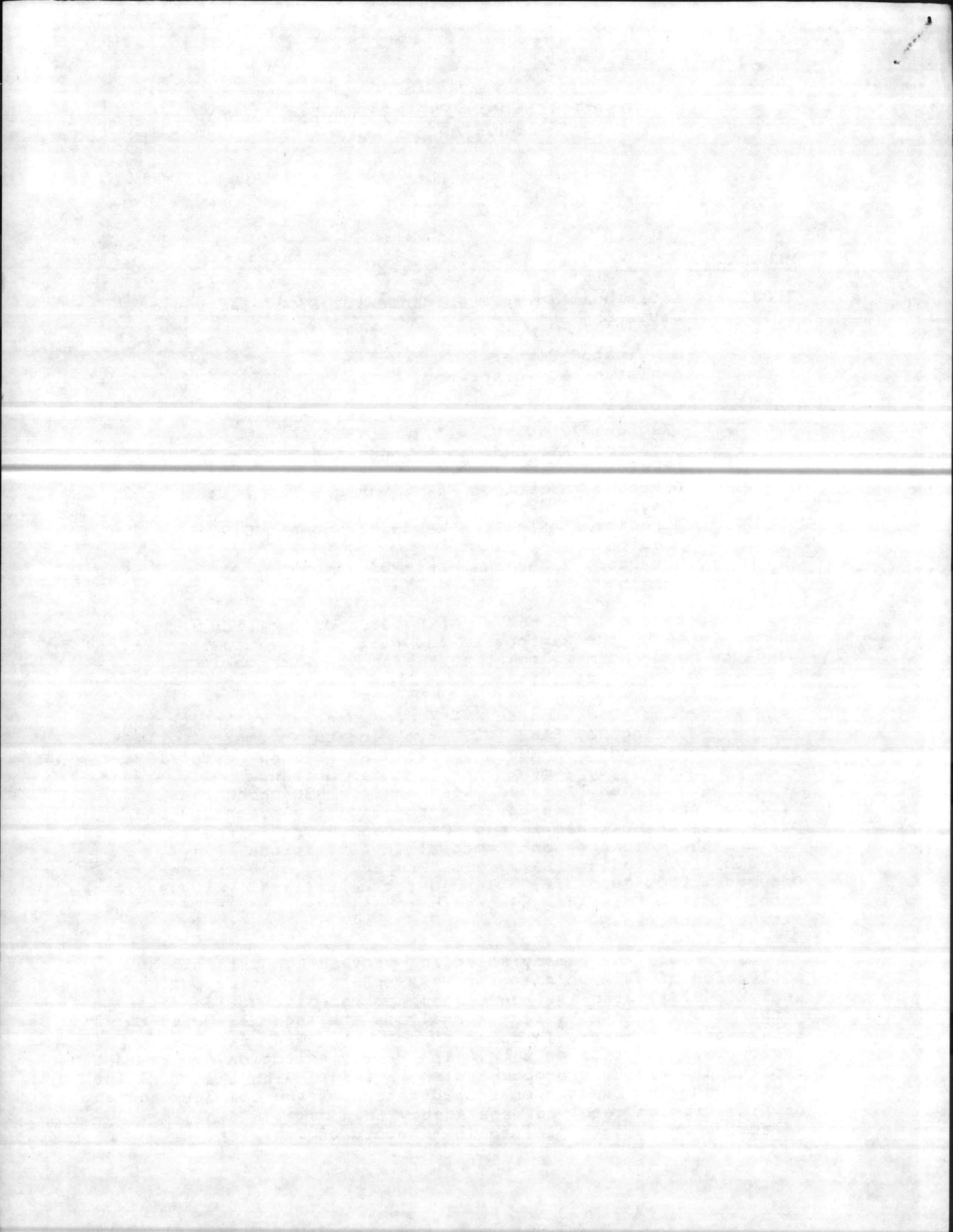
FROM: J. Winston Porter
Assistant Administrator

TO: Director, Waste Management Division
Regions I, IV, V, VII, and VIII
Director, Air and Waste Management Division
Region II
Director, Hazardous Waste Management Division
Regions III and VI
Director, Toxics and Waste Management Division
Region IX
Director, Hazardous Waste Division
Region X

There are a large number of Records of Decision (RODs) to be signed by the Regions in the near term. This interim guidance memorandum is meant to assist you with making and documenting these decisions.

Records of Decision in FY'87 are governed by the current National Contingency Plan (NCP) promulgated November 20, 1985 and the Superfund Amendments and Reauthorization Act of 1986 (SARA). This memorandum supplements the "Interim Guidance on Superfund Selection of Remedy" issued December 24, 1986 which was an early effort to explain how SARA modifies the processes and procedures established in the NCP. Pending revisions to the NCP and the guidances on "Remedial Investigations (RI)," "Feasibility Studies (FS)," and "Preparation of Decision Documents (ROD Guidance)" planned for next fiscal year, Regions should follow this and the previous guidance memorandum to the extent practicable.

In brief, the remedy selection process consists of the collection of data on site and waste characteristics and the analysis of alternative approaches for remediating identified problems. The results of the analysis are then assembled to assist decisionmakers in determining what remedy is most appropriate for a given site. The remedy selection occurs in two steps: first, a proposed plan is issued with the RI/FS for public comment; based upon consideration of the comments and any new information received, the Agency then makes a final remedy selection which is explained in a Record of Decision.



In both the Proposed Plan and Record of Decision it is important to discuss and compare the alternatives in terms of specific evaluation criteria. Attachment #1 lists some of the most important criteria that should be considered in this analysis. As indicated, many of the criteria are specifically mandated by SARA; others derive from the current NCP and existing RI/FS and ROD guidances. Suggested component measures of each criteria are listed, although different measures may be more or less appropriate for an individual site.

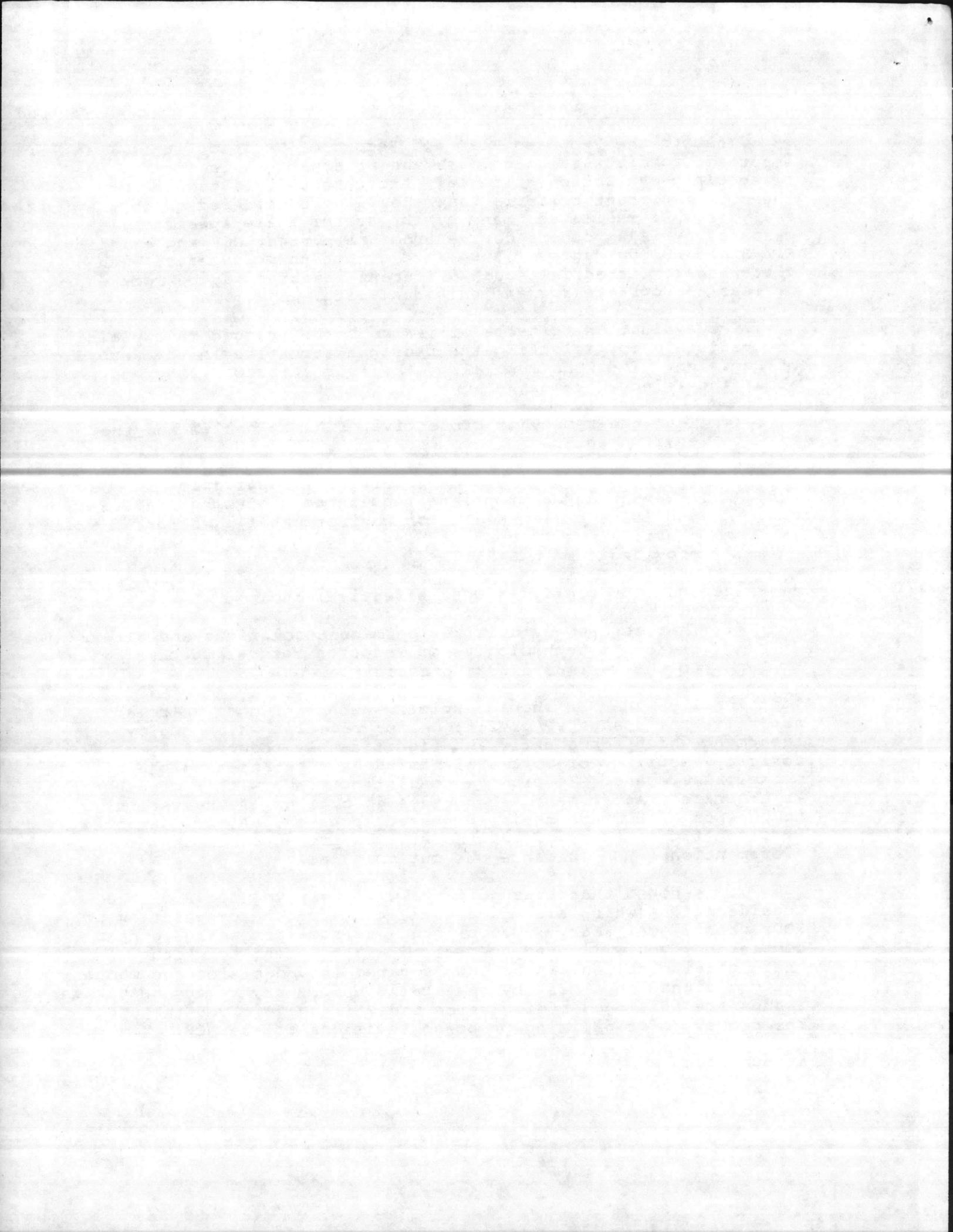
The evaluation criteria will also be referenced in explaining the rationale for selecting the chosen alternative in the Record of Decision. The RODs must also make four statutory findings about the selected remedy:

1. That the remedy is protective of human health and the environment;
2. That the remedy attains the legally applicable or relevant and appropriate requirements of other Federal and State public health or environmental laws, or provides the grounds for invoking one of the six waivers provided for in SARA;
3. That the remedy is cost-effective; and
4. That the remedy utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

Additionally, the ROD should explain whether or not the remedy satisfies the statutory preference for remedies which employ treatment which permanently and significantly reduces the toxicity, mobility or volume of hazardous substances as their principal element. To promote consistency in how this documentation is organized, Attachment #2 provides an outline of the various components of ROD and their suggested sequence. A more detailed version of this proposed outline will be presented in the aforementioned ROD Guidance due out this fall.

It is hoped that this guidance will help you focus on the considerations which are most significant for the preparation of RODs this fiscal year. Recognizing that some projects are near completion, you will need to determine the extent to which these considerations can be incorporated into decision documents not yet signed on a case by case basis. Some key remedy selection issues are still under discussion and will be resolved through the process of finalizing proposed revisions to the NCP.

Attachments



CRITERIA FOR EVALUATING ALTERNATIVES

Listed below are the key criteria which should be considered in evaluating and comparing alternatives. Those criteria which relate directly to the factors SARA §121(b)(1)(A - G) mandates the Agency to assess are marked. A key listing the associated statutory factors is provided. Records of Decision must address these statutory factors; this can be accomplished by referencing or footnoting the factors in summarizing the analysis of alternatives against the nine criteria below.

1. Compliance with ARARs

Alternatives should be assessed as to whether they attain legally applicable or relevant and appropriate requirements of other Federal and State environmental and public health laws, including, as appropriate:

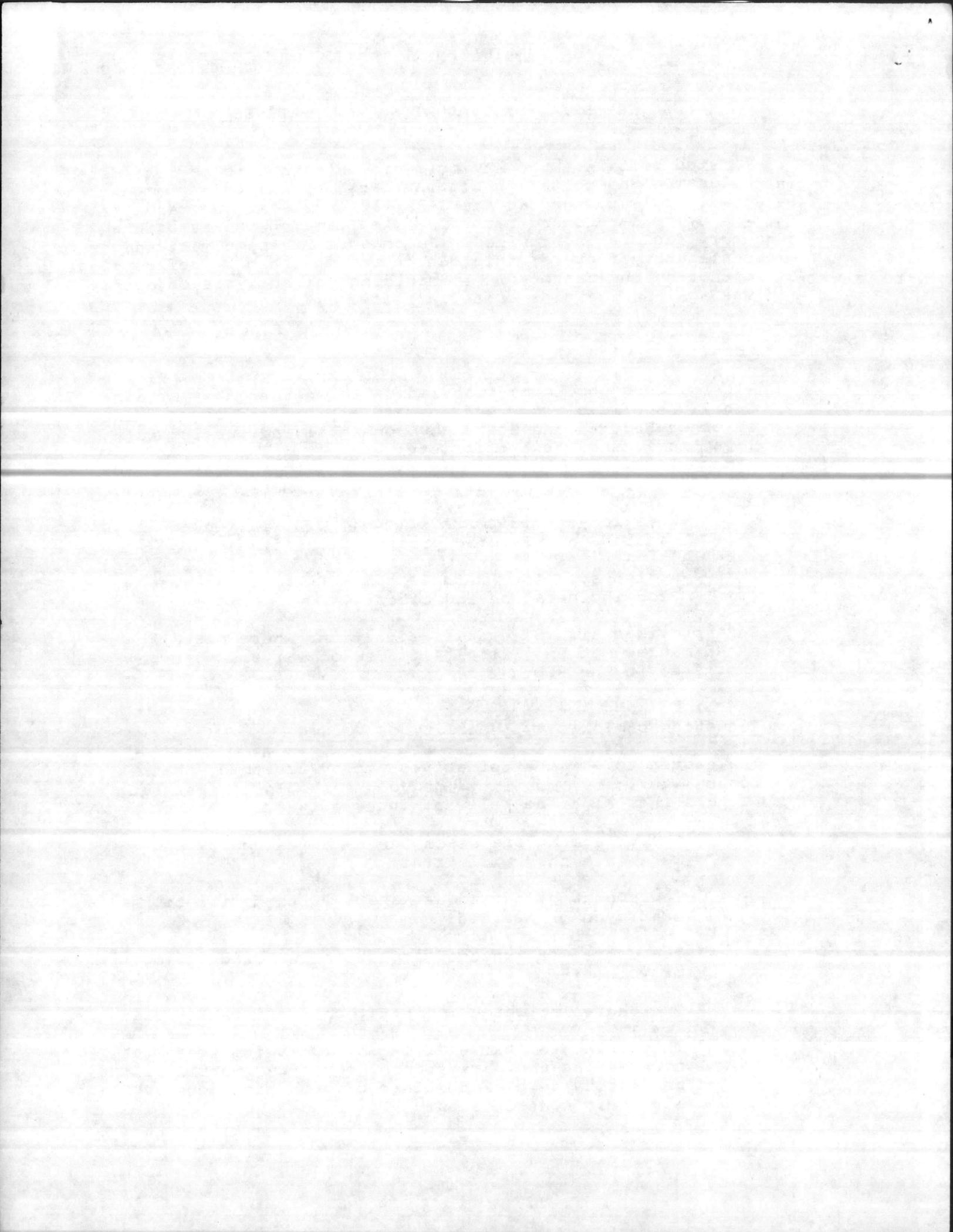
- Contaminant-specific ARARs (e.g., MCLs, NAAQs)^B
- Location-specific ARARs (e.g., restrictions on actions at historic preservation sites)^B
- Action-specific ARARs (e.g., RCRA requirements for incineration and closure)^B

SARA provides six waivers for situations where not all ARARs can be met in §121(d)(4). Use of waivers must be justified in the ROD.

2. Reduction of Toxicity, Mobility or Volume

The degree to which alternatives employ treatment that reduces toxicity, mobility, or volume should be assessed. Factors that might be relevant include:

- The treatment processes the remedies employ and materials they will treat;
- The amount of hazardous materials that will be destroyed or treated;
- The degree of expected reduction in toxicity, mobility or volume;^B
- The degree to which the treatment is irreversible;
- The residuals that will remain following treatment, considering the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous substances and their constituents.^C



3. Short-Term Effectiveness

The short-term effectiveness of alternatives should be assessed considering appropriate factors among the following:

- Magnitude of reduction of existing risks;
- Short-term risks that might be posed to the community, workers, or the environment during implementation of an alternative including potential threats to human health and the environment associated with excavation, transportation, and redispisal or containment;D,G
- Time until full protection is achieved.

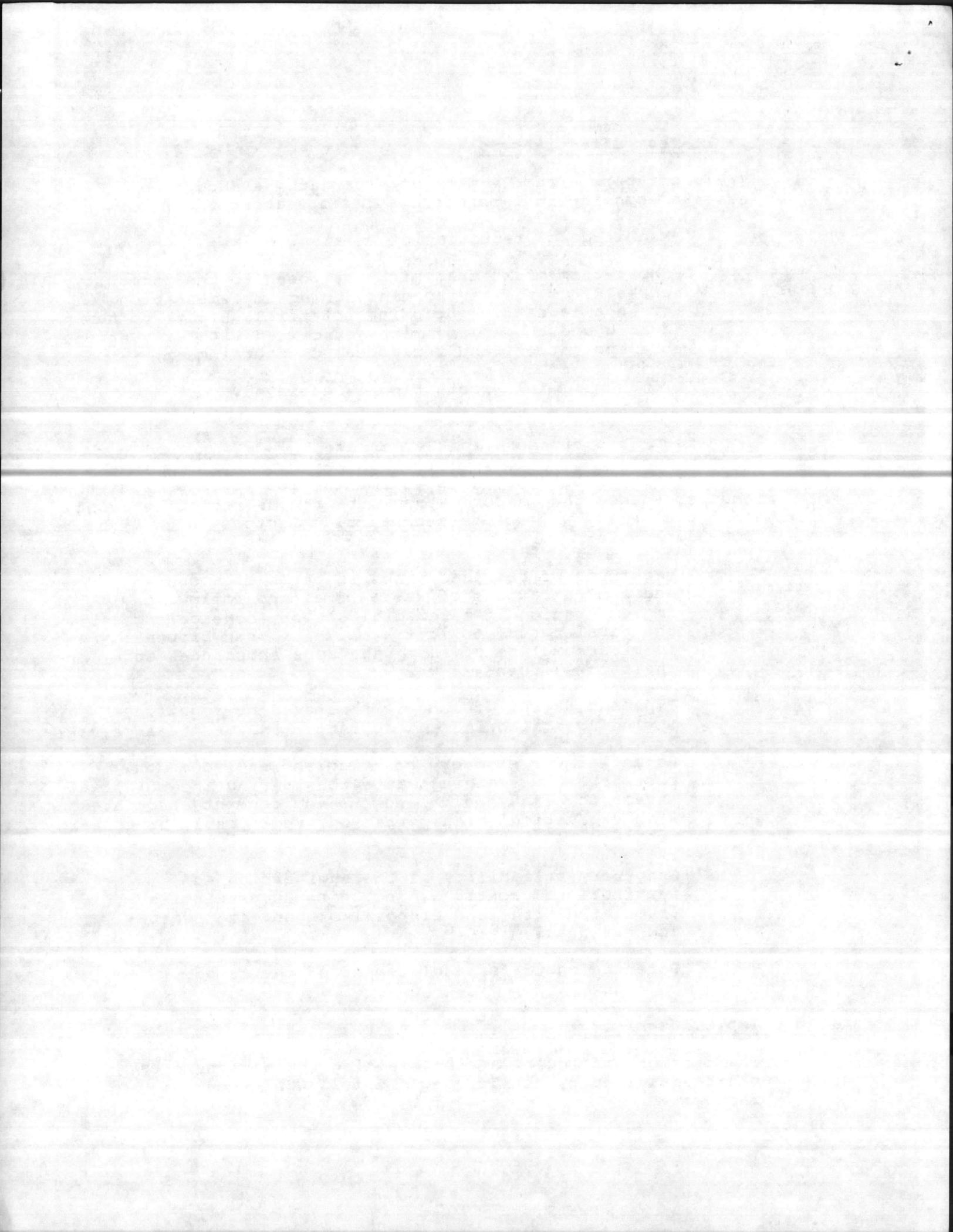
4. Long-term Effectiveness and Permanence

Alternatives should be assessed for the long-term effectiveness and permanence they afford along with the degree of certainty that the remedy will prove successful. Factors which might be considered are:

- Magnitude of residual risks in terms of amounts and concentrations of waste remaining following implementation of a remedial action, considering the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous substances and their constituents;A,B,C,G
- Type and degree of long-term management required, including monitoring and operation and maintenance;A,B,G
- Potential for exposure of human and environmental receptors to remaining waste considering the potential threat to human health and the environment associated with excavation, transportation, redispisal, or containment;D,G
- Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated wastes and residuals;A,B,F,G
- Potential need for replacement of the remedy.F

5. Implementability

The ease or difficulty of implementing the alternatives can be assessed by considering the following types of factors:



- Degree of difficulty associated with constructing the technology;
- Expected operational reliability of the technologies;
- Need to coordinate with and obtain necessary approvals and permits (e.g., NPDES, Dredge and Fill Permits for off-site actions) from other offices and agencies;
- Availability of necessary equipment and specialists;
- Available capacity and location of needed treatment, storage, and disposal services.
- Need to respond to other sites (\$104 actions only).

6. Cost

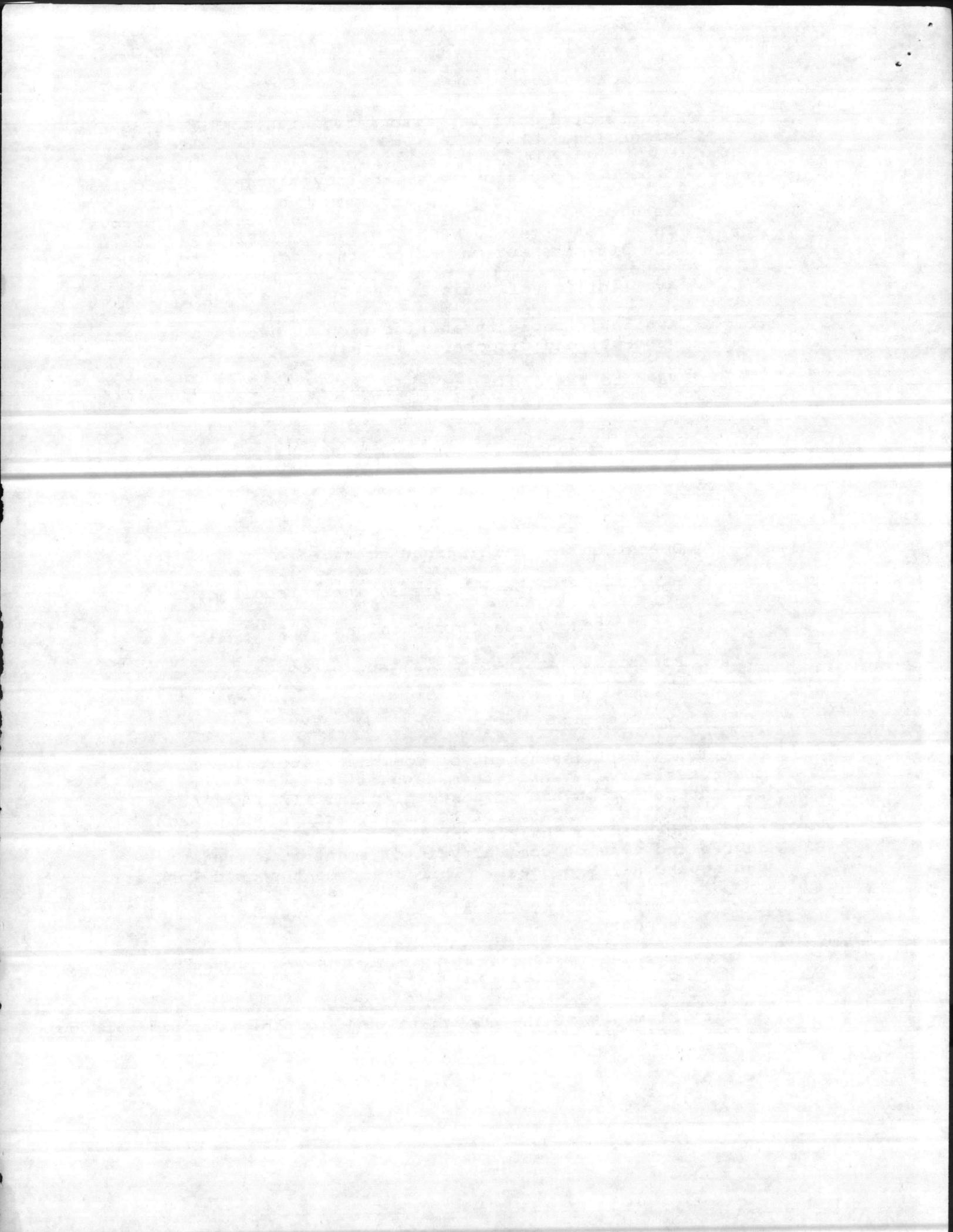
The types of costs that should be assessed include the following:

- Capital costs;
- Operation and maintenance costs;E
- Costs of five year reviews, where required;
- Net present value of capital and O & M costs;E
- Potential future remedial action costs.F

7. Community Acceptance

Clearly, a full assessment of community attitudes toward the alternatives cannot be made until the formal public comment period on the proposed plan and RI/FS has been held. Earlier readings of community acceptance of and preferences among the alternatives will depend on the degree and type of community involvement in a project during the RI/FS process. This assessment should look at:

- Components of the alternatives that the community supports;
- Features of the alternatives about which the community has reservations;
- Elements of the alternatives which the community strongly opposes.



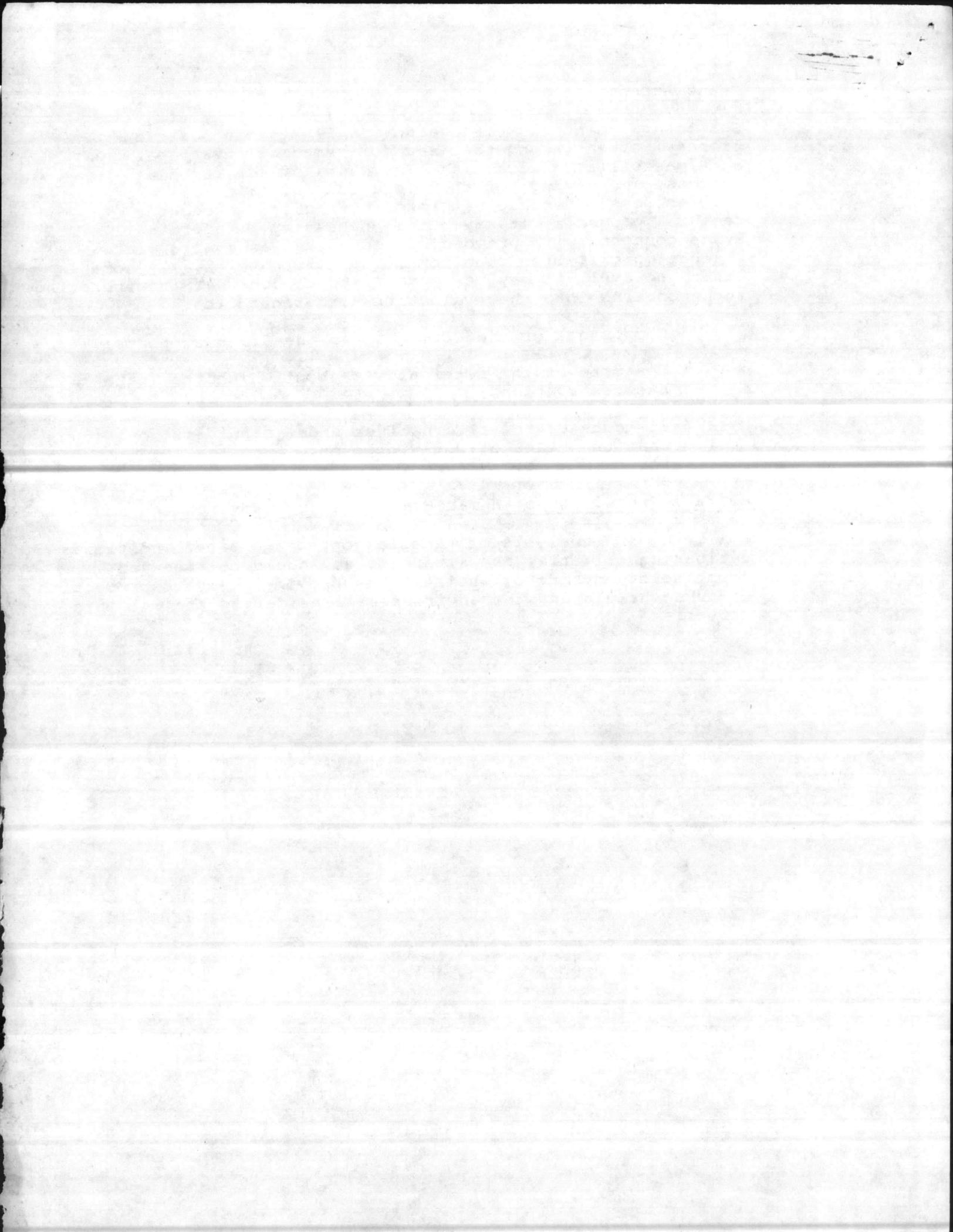
8. State Acceptance

States are joint risk managers with EPA in the Superfund process, often taking the lead for remedial investigations and feasibility studies, sharing costs of the remedial actions, and paying for the operation and maintenance of the remedies. Because of close interaction throughout remedial projects, it may not be necessary to address State concerns with proposed alternatives as a specific evaluation criterion when comparing alternatives. In some cases, however, it may be appropriate to consider incorporating such concerns into the evaluation with regard to:

- Components of the alternatives the State supports;
- Features of the alternatives about which the State has reservations;
- Elements of the alternatives under consideration that the State strongly opposes.

9. Overall Protection of Human Health and the Environment

Following the analysis of remedial options against individual evaluation criteria, the alternatives should be assessed from the standpoint of whether they provide adequate protection of human health and the environment considering the multiple criteria.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 24 1986

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE
9355.0-19

MEMORANDUM

SUBJECT: Interim Guidance on Superfund Selection of Remedy

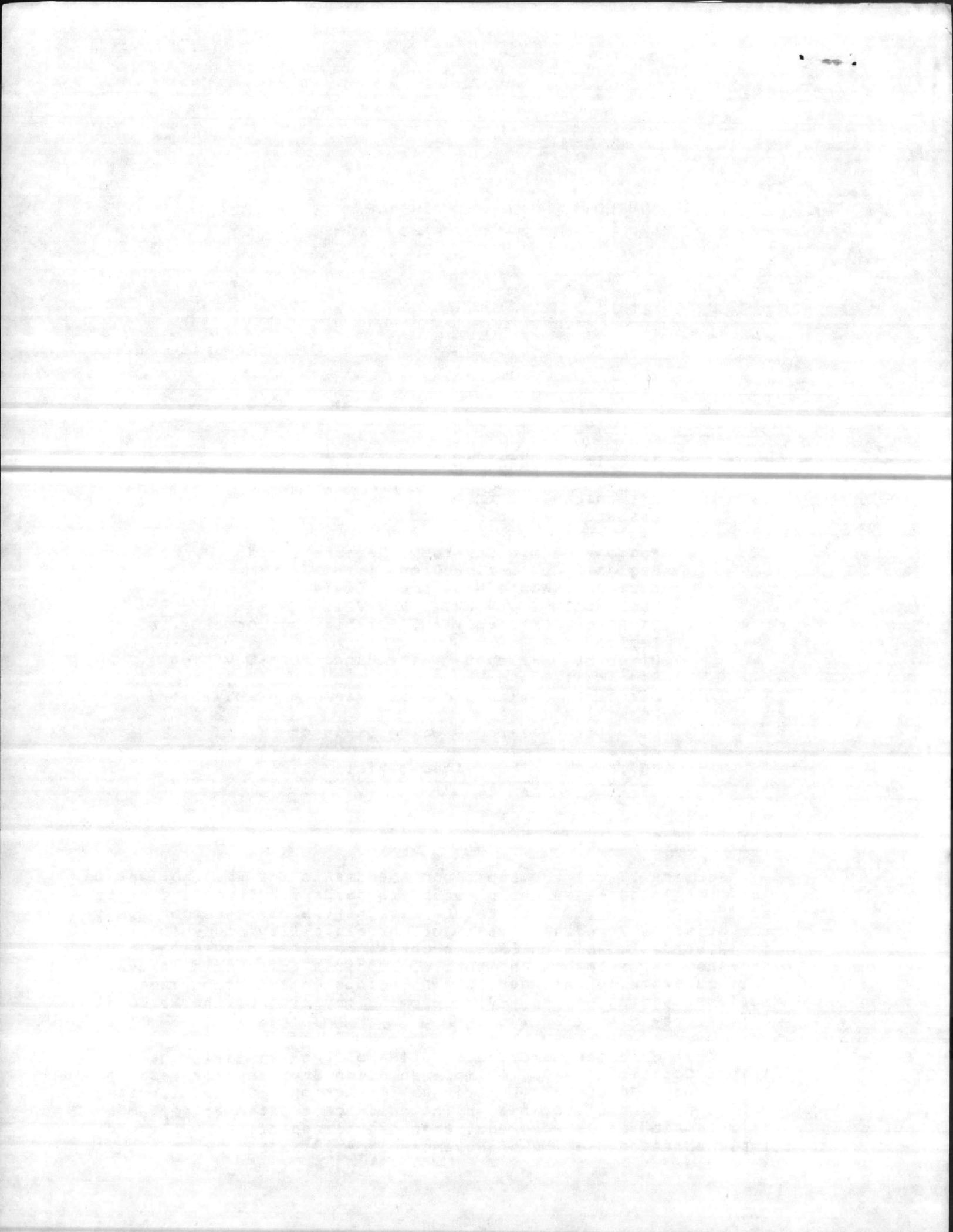
FROM: J. Winston Porter
Assistant Administrator

TO: Regional Administrators, Regions I - X
Regional Counsel, Regions I - X
Director, Waste Management Division
Regions I, IV, V, VII, and VIII
Director, Emergency and Remedial Response Division
Region II
Director, Hazardous Waste Management Division
Regions III and VI
Director, Toxics and Waste Management Division
Region IX
Director, Hazardous Waste Division
Region X
Environmental Services Division Directors
Regions I, VI, and VII

Introduction

Section 121 of the Superfund Amendments and Reauthorization Act (SARA) addresses the cleanup standards for Superfund remedial actions. While the new statute retains the basic components of the existing Remedial Investigation/Feasibility Study (RI/FS) and Record of Decision (ROD) process, the §121 provisions add some new requirements and special emphasis to certain issues. This guidance is intended to aid Regions in selecting remedial actions pending the Agency's upcoming revision of the National Contingency Plan (NCP).

This guidance memorandum builds on the transition guidance issued October 24, 1986 ("Implementation Strategy for Reauthorized Superfund: Short Term Priorities for Action," OSWER Directive 9200.3-02) and elaborates on the guidance related to implementation of selection of remedy requirements outlined at the Superfund Implementation Meeting of November 19 - 20, 1986.



This is one of several interim guidances we plan to issue on some of the more difficult cleanup standards issues. The Selection of Remedy Workgroup, which has been meeting since July and includes representatives from Regions and States in addition to a wide variety of Headquarters offices, is currently engaged in drafting language for the NCP regulation and preamble. A number of issues related to applicable or relevant and appropriate Federal and State requirements, cost-effectiveness, and challenges associated with an increased use of treatment will be addressed.

In addition to this and subsequent interim guidances, we will attempt to meet short-term Regional implementation needs by making Headquarters staff available, upon your request, to assist your staffs as they modify their RI/FS workplans for ongoing projects in January and February, 1987. In preparation for these project review sessions, Regions in conjunction with State-lead Agencies should begin to examine ongoing projects and draft a list of potential changes that will be required to satisfy §121 of SARA. Regional staff should use this guidance and the transition guidance as the basis for proposed workplan revisions.

As soon as possible, Regions should notify potentially responsible parties (PRPs) conducting RI/FSs of the new SARA provisions and discuss with them any necessary modifications of their workplans.

We will continue to delegate remedy selection authority to Regions. In support of this effort over the longer term we will be revising the RI/FS Guidance and ROD Guidance and holding related workshops in the Spring of 1987. Also, Headquarters will be available to assist Regions with final FS revisions and ROD preparation throughout the fiscal year.

Overview of the Process

Under SARA, the remedial process retains its major analytical components: a remedial investigation (RI) in which data about site and waste characteristics, their hazards, and routes of exposure are collected and analyzed, and in which data about treatability of wastes and performance of treatment processes is assembled as necessary; and a feasibility study (FS) in which a number of potential remedial alternatives are developed and screened, and the most promising subset of alternatives is evaluated against a range of factors and compared against one another. This process culminates in the selection of a remedy.

Figure 1 suggests that the RI may need to be conducted in at least two phases, while the FS will retain the three phases described in the current NCP. The RI/FS has been evolving into a more interactive process: as the FS progresses, more sophisticated data are required to assess the feasibility of an alternative. In addition to a literature survey, more site

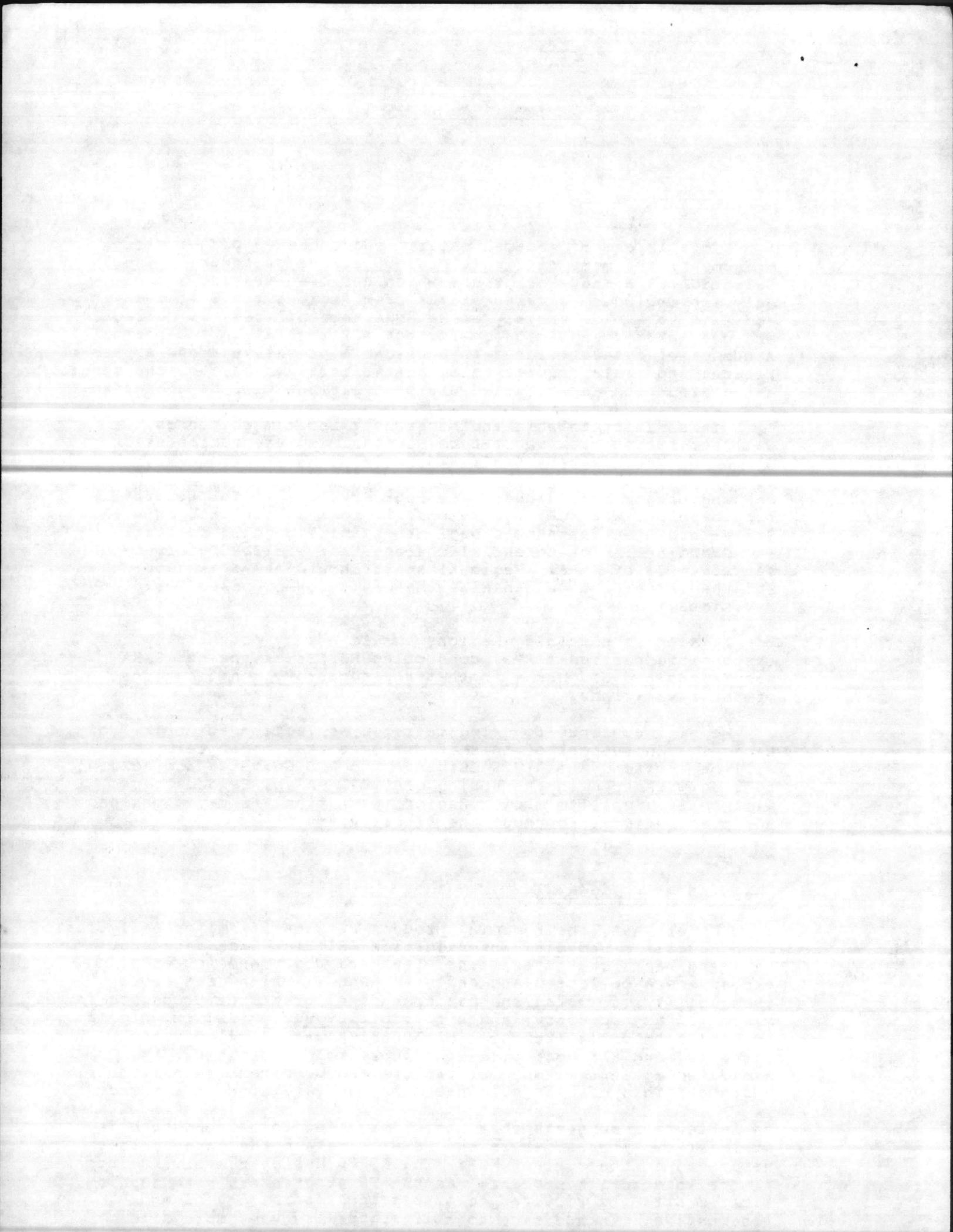
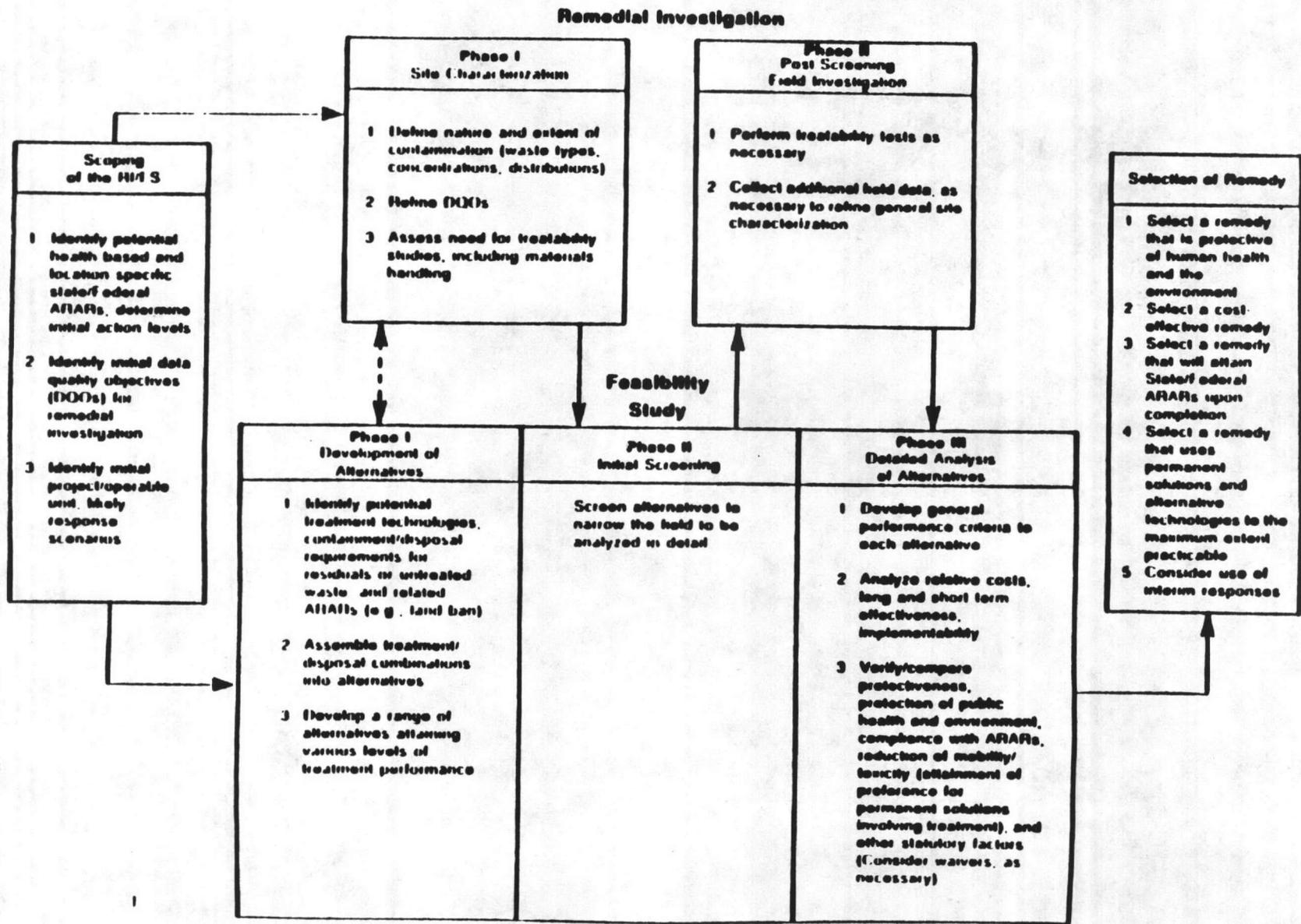
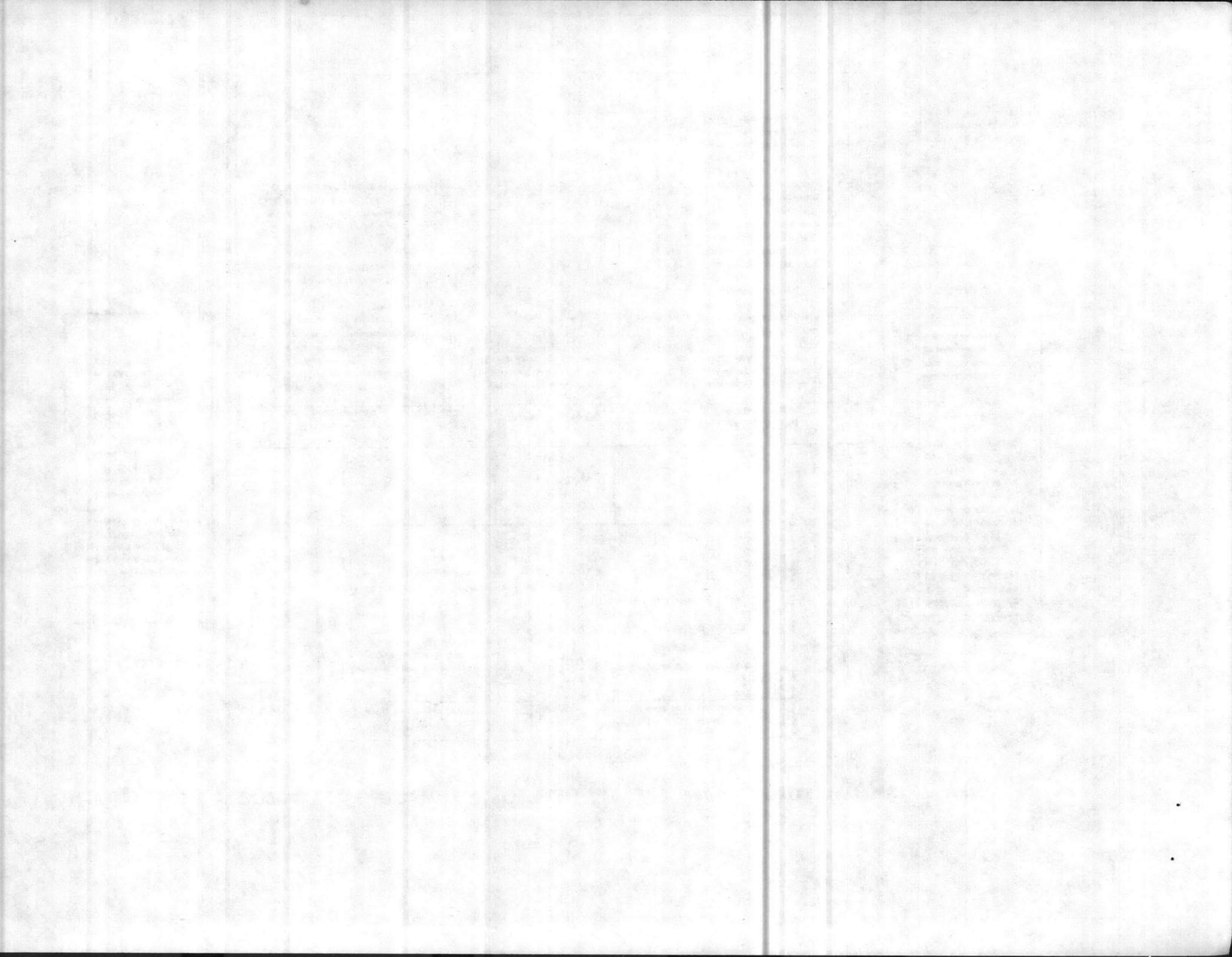


Figure 1

Proposed Remedy Selection Process Under Reauthorization





data and/or bench- or pilot-scale testing of a treatment technology may be needed. Likewise, the RI has become a phased process wherein the data quality objectives (DQOs) are tailored to the need for additional site, waste, and treatment performance information.

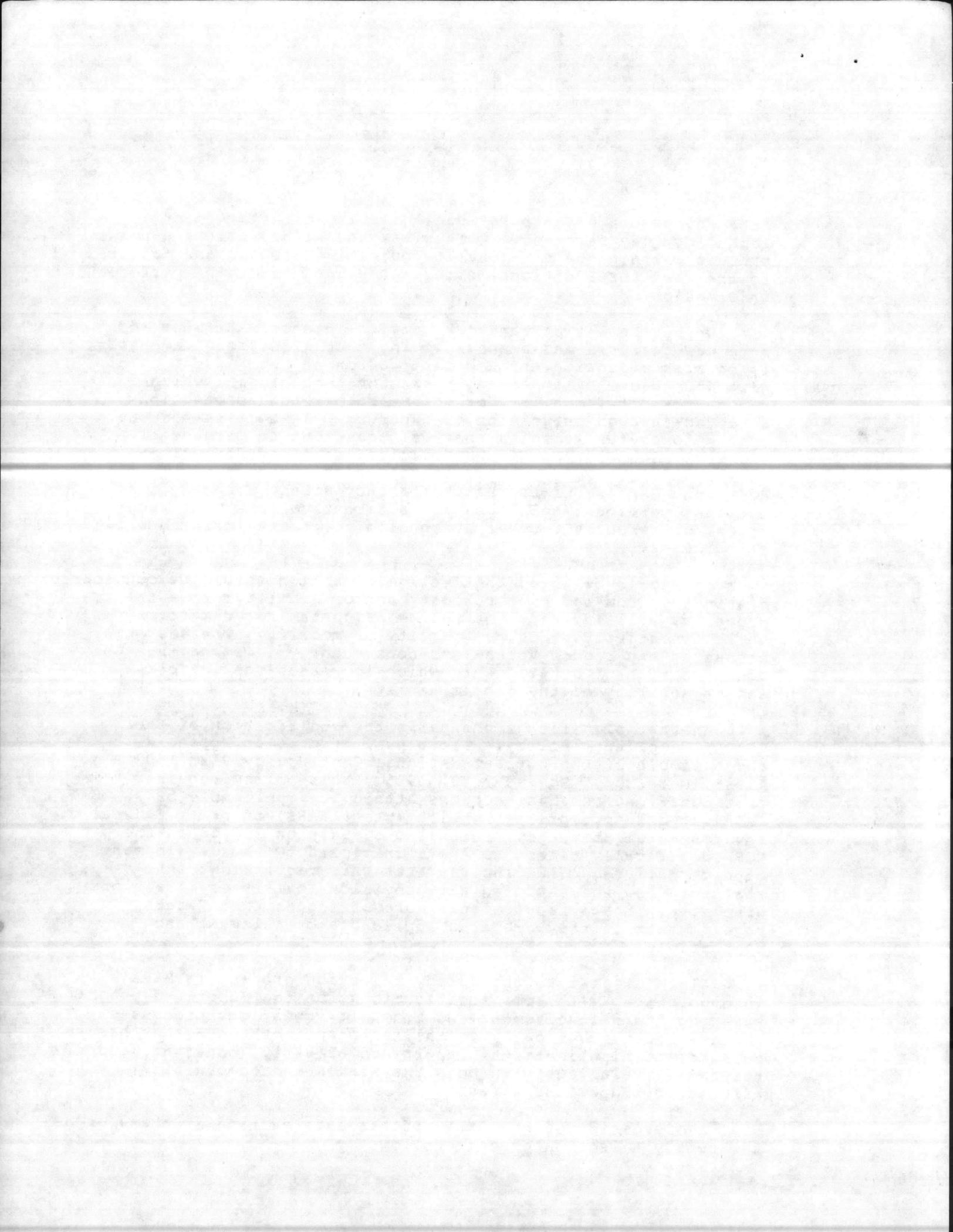
While the basic framework remains intact, SARA does add some new features and emphasis. The most significant emphasis is on risk reduction through destruction or detoxification of hazardous waste by employing treatment technologies which reduce toxicity, mobility or volume rather than protection achieved through prevention of exposure. SARA calls for the Agency to prefer remedies that use treatment to permanently and significantly reduce the toxicity, mobility, or volume of wastes over remedies that do not use such treatment. In addition, SARA requires that the Agency select a remedy that utilizes permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable.

It should be noted that volume reduction should be considered distinctly from reducing toxicity and/or mobility; some treatment processes will increase the volume of contaminated material while effectively reducing toxicity or mobility, whereas other processes may reduce volume and consequently increase the concentration of constituents which increases the toxicity and/or mobility of the contaminants.

Another significant change is the codification of the CERCLA Compliance Policy. First published as an appendix to the preamble of the current National Contingency Plan (50 FR 47946, Wednesday, November 20, 1985), this policy required that Superfund remedial actions attain the applicable or relevant and appropriate requirements (ARARs) of other Federal environmental statutes. Furthermore, Section 300.68 of the NCP specifically refers to ARARs in regard to the development of alternatives. SARA incorporates this requirement into statutory law while adding the provision that remedial actions also attain State requirements more stringent than Federal requirements if they are also applicable or relevant and appropriate.

Also integral to the remedy selection process is SARA's incorporation, with some modifications, of the Superfund program's existing State involvement and community relations processes. The new statute basically formalizes practices the Agency has pursued and highlights the importance of early, constant, and responsive relations with both the States and communities affected by Superfund sites.

A discussion of how SARA affects each particular phase of the remedy selection process follows.



Scoping of the RI/FS

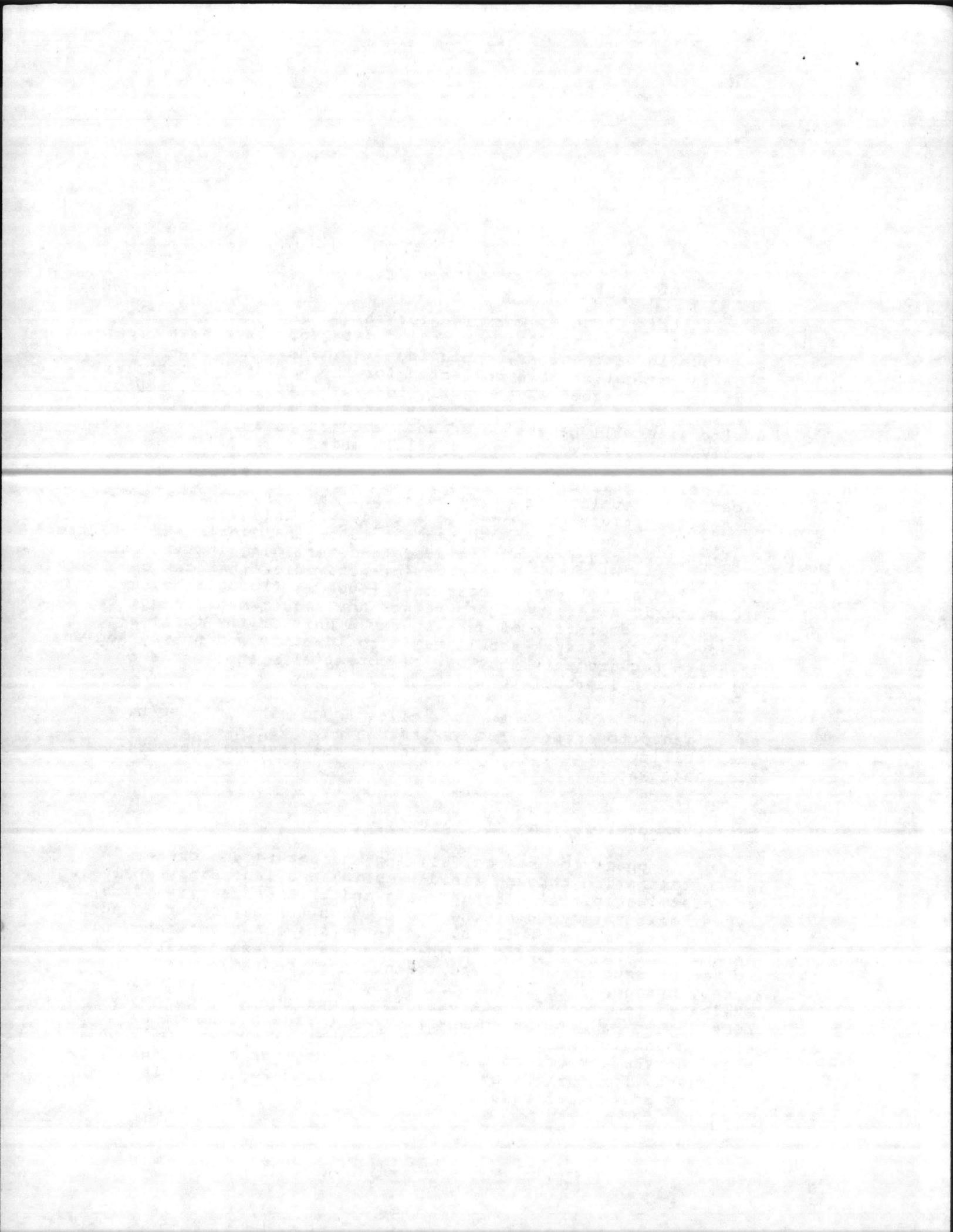
In this phase, a workplan for the RI and the FS is prepared to undertake the studies. Existing data about the site from previous investigations, including Preliminary Assessment and Site Investigation data collected for the National Priorities Listing, are assembled and evaluated. Initial project boundaries are identified, and a preliminary decision made on whether the entire site will be evaluated and remedied as a single unit or subdivided into two or more operable units.

Most significant in this phase is the preliminary identification of applicable or relevant and appropriate requirements that alternatives will need to attain. At this early stage in the process, Regions and States should begin identifying potential health-based requirements related to determining initial action levels, requirements which restrict activities that can be undertaken at different locations, (such as floodplains, wetlands, and historic sites), and on whether the requirements might be met at the completion of each operable unit or the total site remedy. Also, States should begin to identify and notify Regions of State requirements that may be potentially applicable or relevant and appropriate to the site.

Initial data quality objectives (DQOs) should also be established to ensure that environmental, health effects and treatability data will be of adequate quality and appropriate for their intended uses.

Site Characterization (RI Phase I)

This phase focuses on defining the nature and extent of contamination through field sampling and laboratory analysis to determine initial cleanup goals and to characterize waste types, mixtures, volume, the media in which they occur, concentration ranges and profiles, and interface zones between media. An analysis is conducted to characterize and assess risks, routes of exposure, fate and transport of contaminants, and likely human and environmental receptors. DQOs should be evaluated to identify data use, type, quality, and quantity. DQOs should be refined to ensure that foreseeable needs for environmental, health effects, and treatability data will be met. At the completion of this stage, Regions should supply the Agency for Toxic Substances and Disease Registry with the data and analytical results.



Development of Alternatives (FS Phase I)

This stage may begin concurrently with or slightly behind the RI and consists of three major steps: identifying potential treatment technologies and their associated containment or disposal requirements; prescreening of technologies for suitability as part of alternatives, and assembling technology and/or disposal combinations into alternatives.

Treatment alternatives should be developed ranging from an alternative that, to the degree possible, would eliminate the need for long-term management (including monitoring) at the site to alternatives involving treatment that would reduce toxicity, mobility, or volume as their principal element. Although alternatives may involve different technologies (which will most often address toxicity and mobility) for different types of waste, they will vary mainly in the degree to which they rely on long-term management of treatment residuals or low-concentrated wastes.

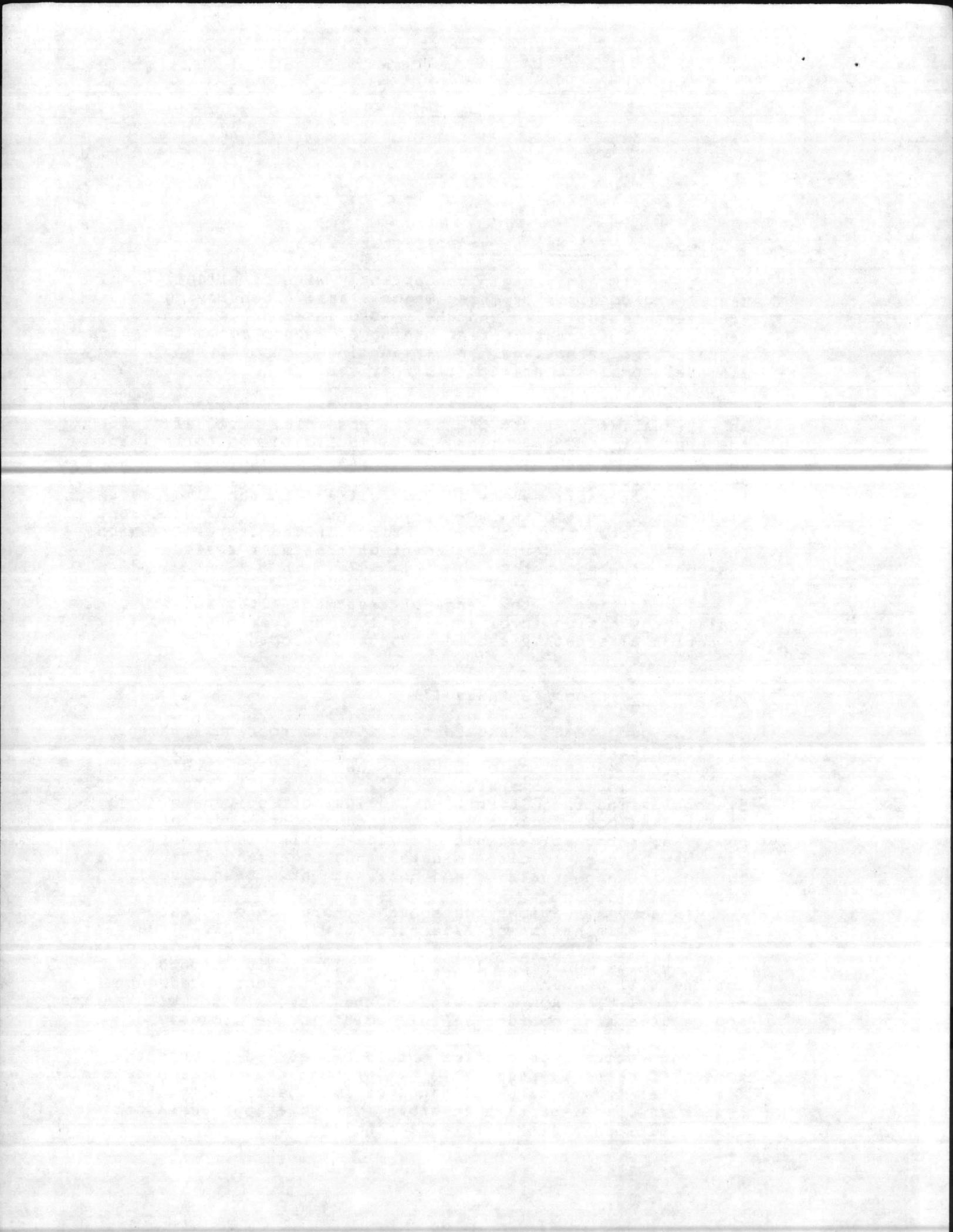
In addition to the range of treatment alternatives, a containment option involving little or no treatment and a no action alternative should also be developed.

Initial Screening (FS Phase II)

The purpose of the screening step is to reduce the number of alternatives for further analysis while preserving a range of options. Consultation between the Agency and the State is very important at this stage. This screening is accomplished by considering the alternatives against effectiveness, implementability and cost factors. Cost is an important factor when comparing alternatives which provide similar results (i.e., cost may be used to discriminate among treatment alternatives, but not between treatment and nontreatment alternatives).

In some situations the above factors could occasionally result in elimination of alternatives which involve treatment of the source as the principal element (e.g., large, complex sites such as municipal landfills). Typically, ground water actions will be necessary at such sites to achieve adequate protection. The ROD must explain the rationale for eliminating source treatment options at this point in the process.

Innovative technologies should be carried through the screen if there is reasonable belief that they offer potential for better treatment performance or implementability, few or lesser adverse impacts than other available approaches, or lower costs than demonstrated technologies.



Post Screening Field Investigation (RI Phase II)

This phase of the RI should focus on collecting data sufficient to make a well-substantiated remedy selection decision. After a literature survey is conducted to identify existing treatment data, treatability tests at the bench- and sometimes pilot-scale may be necessary to test a particular technology on actual site waste. Additional field data may be collected as needed to further assess alternatives.

Detailed Analysis (FS Phase III)

The alternatives passing through the initial screen should be analyzed in further detail against a range of factors and compared against one another.

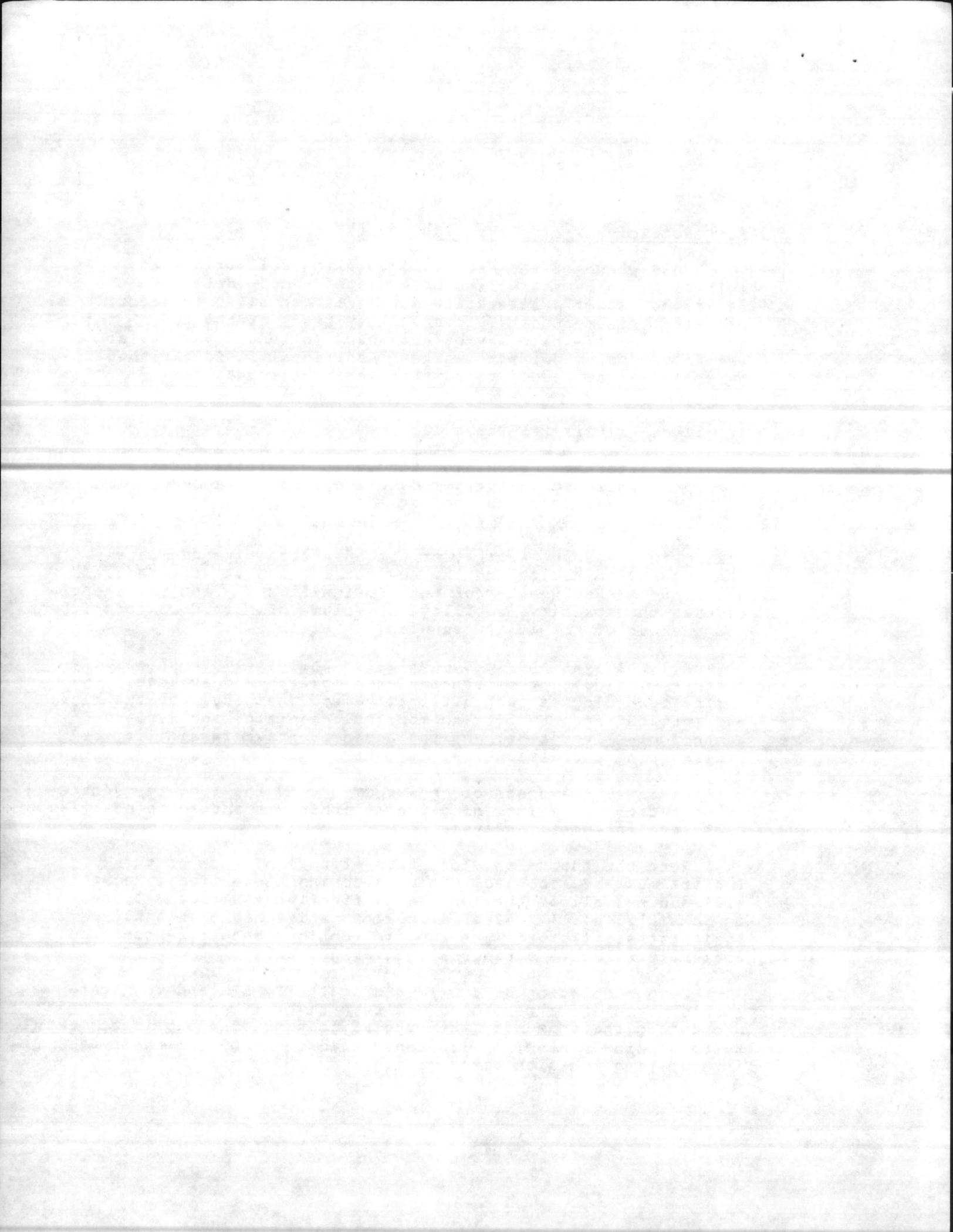
The effectiveness of the alternatives should be assessed, taking into account whether or not an alternative adequately protects human health and the environment and attains Federal and State ARARs, whether or not it significantly and permanently reduces the toxicity, mobility, or volume of hazardous constituents, and whether or not it is technically reliable.

Alternatives should be evaluated against implementability factors, including the technical feasibility and availability of the technologies each alternative would employ, the technical and institutional ability to monitor, maintain, and replace technologies over time; and the administrative feasibility of implementing the alternative.

Finally, the costs of construction and the long-term costs of operating and maintaining the alternatives should be analyzed using present-worth analysis.

Both the short- and long-term effects of each of these factors must be assessed. In considering these items, Regions will address all of the long-term effectiveness factors cited in SARA §121(b)(1). After each alternative has been analyzed against these factors, the remedial options should be compared for their relative strengths and weaknesses.

Upon completion of the RI and draft FS, EPA and the State should formulate a recommended alternative or approach to present to the community when the FS goes out for public comment. At this point, the RI/FS is transmitted to ATSDR for their use in preparing a health assessment.



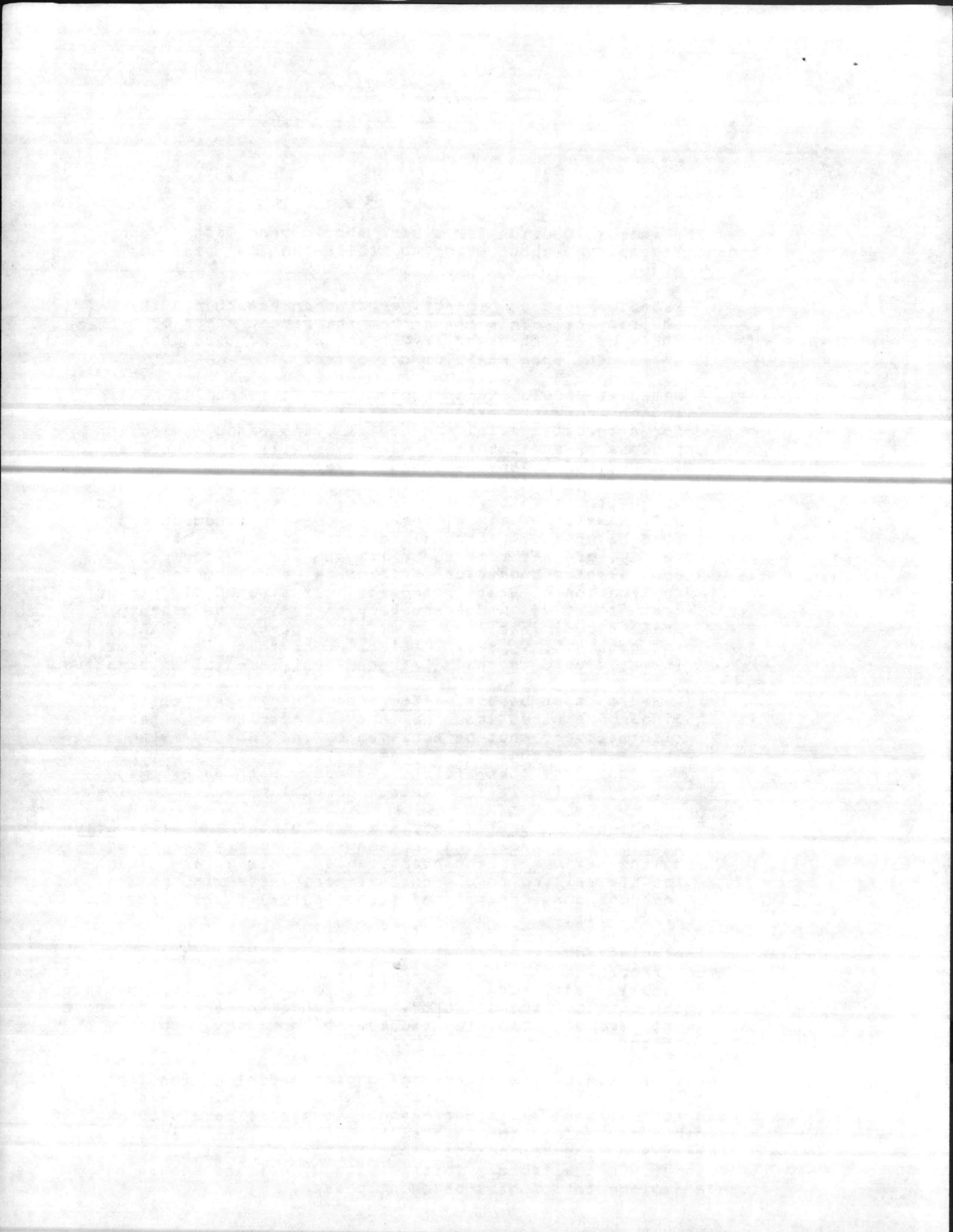
Selection of Remedy

The remedial action for a site should be selected among those alternatives about which the following four findings can be made:

- Remedies must be protective of human health and the environment. This means that the remedy meets or exceeds ARARs or health-based levels established through a risk assessment when ARARs do not exist.
- Remedies should attain Federal and State public health and environmental requirements that have been identified for a specific site. In general, the remedy selection process presumes that alternatives will be formulated and refined to ensure that they attain all of the appropriate ARARs. However, SARA does provide waivers which permit selection of remedies which do not attain all ARARs under six different types of circumstances: fund-balancing, technical impracticability, interim remedy, greater risk to health and the environment, equivalent standard of performance, and inconsistent application of State standards. If a remedy is protective, cost-effective, and adequately satisfies the statutory preferences, inability to attain a particular ARAR will not necessarily prevent selection of that alternative if it was viewed as the all around best remedial alternative.
- Remedies must be cost-effective. In general, this finding requires ensuring that the results of a particular alternative cannot be achieved by less costly methods. This implies that for any specific site there may be more than one cost-effective remedy, with each remedy varying in its environmental and public health results.
- Remedies must utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. This determination is interrelated to the cost-effectiveness finding and includes consideration of technological feasibility and availability.

The selected remedy should represent the best balance across all the effectiveness, implementability, and cost factors examined in the detailed analysis. In making this selection, the decision-maker must consider the statutory preference for treatment which permanently and significantly reduces the toxicity, mobility or volume of the waste.

The program permits the staging of remedial action implementation through multiple operable units. Decisionmakers may choose to implement a limited measure to stabilize a site when a suitable technology for that site is not currently available but clearly on the horizon or capacity for the desired technology is currently unavailable. Initial cleanup actions should not impede implementation of subsequent phases.



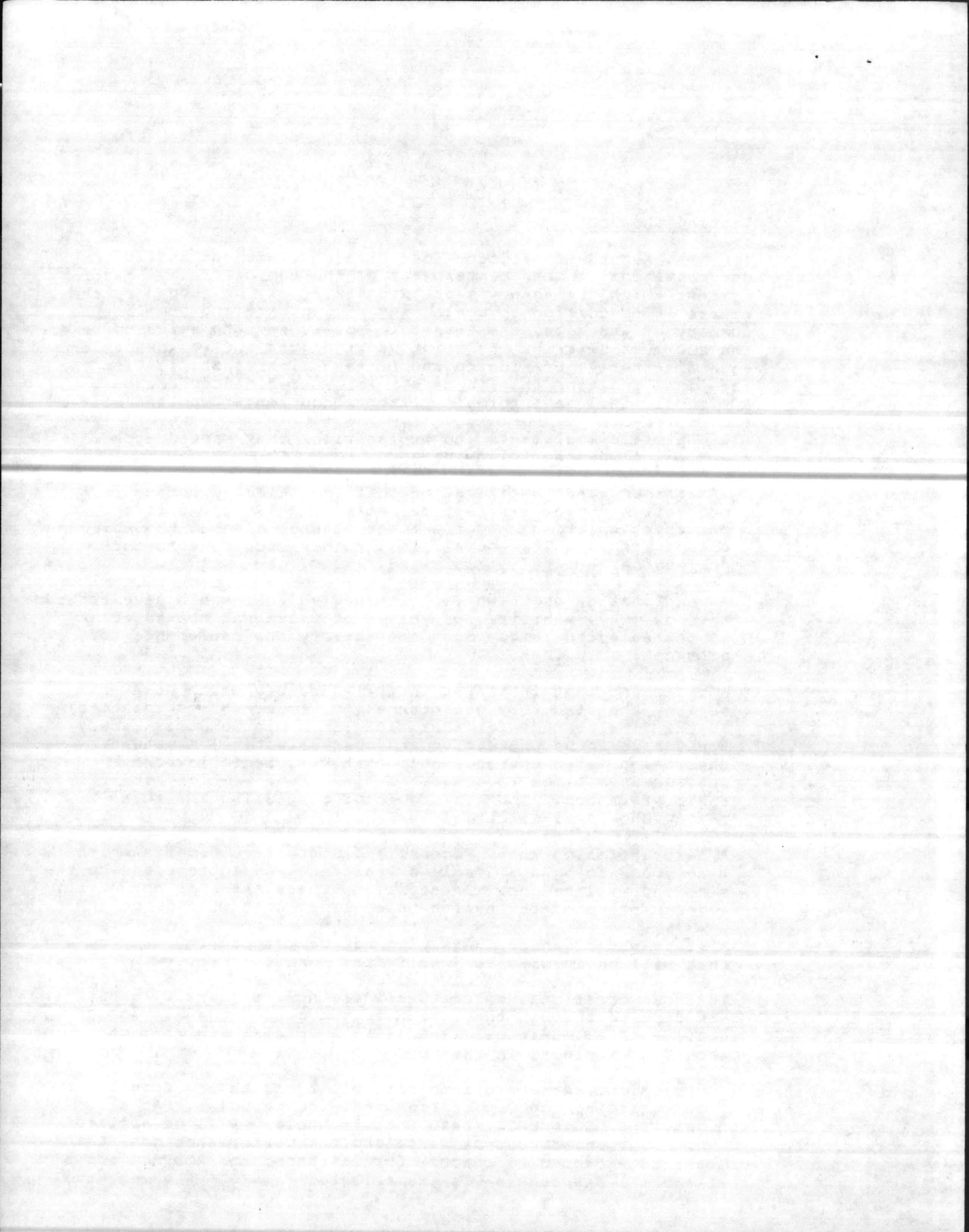
Writing the ROD

The Record of Decision (declaration statement and supporting documentation) is the centerpiece of the administrative record against which the Agency's decisionmaking may be judged by the courts. In addition to containing an accurate and complete summary of the site, the threat it poses, and the selected remedy, the ROD must describe the relative strengths and weaknesses of each alternative considered and offer a clear justification for the final decision that is made. For Fund-financed actions, the ROD should include a formal written concurrence from the State.

Specific statements and explanations that should appear in the ROD include the following:

- ° A statement and justification that the selected remedy is protective and cost-effective, attains ARARs and utilizes permanent solutions and treatment technologies to the maximum extent practicable, where all statutory requirements and preferences are fully satisfied.
- ° An explanation as to why an alternative that would have reduced the toxicity, mobility, or volume of waste was not selected if the selected remedy does not satisfy the preference for permanent solutions.
- ° A statement that indicates whether a remedy which does not satisfy the statutory preferences for treatment is intended as the final remedy for that site (at a minimum this remedy would have to be protective and cost-effective) or whether the action is an operable unit that will be followed by subsequent actions to achieve a final remedy which satisfies the preferences. The timeframe for completing the total remedy should be specified.
- ° A description of those Federal and State requirements which were found to be applicable or relevant and appropriate to the site and will be met. In addition, where ARARs do not exist, a description of the health-based level that will be met.
- ° A statement of which ARARs will not be met and the waiver that will be invoked to justify the nonattainment.
- ° In those occasional situations where no treatment alternative was carried through the screen to the detailed analysis (for sites such as municipal landfills) a special explanation should be included in the ROD.

Decisionmakers have some flexibility as to how specific the ROD is regarding the use of treatment technologies. At a minimum, the ROD should state what technology will be applied to what type and amount of waste and the performance goal that process is expected to reach. For instance, the ROD may state that thermal destruction is the selected remedy. However, the



effectiveness, implementability, and cost analyses must be based on a specific process within that technology category, such as rotary kiln, to ground the analysis in hard data. When the remedial action is bid, any process in that technology category stated in the ROD would be eligible provided they could match the performance goals of the process analyzed in detail.

Applicability to Ongoing Projects

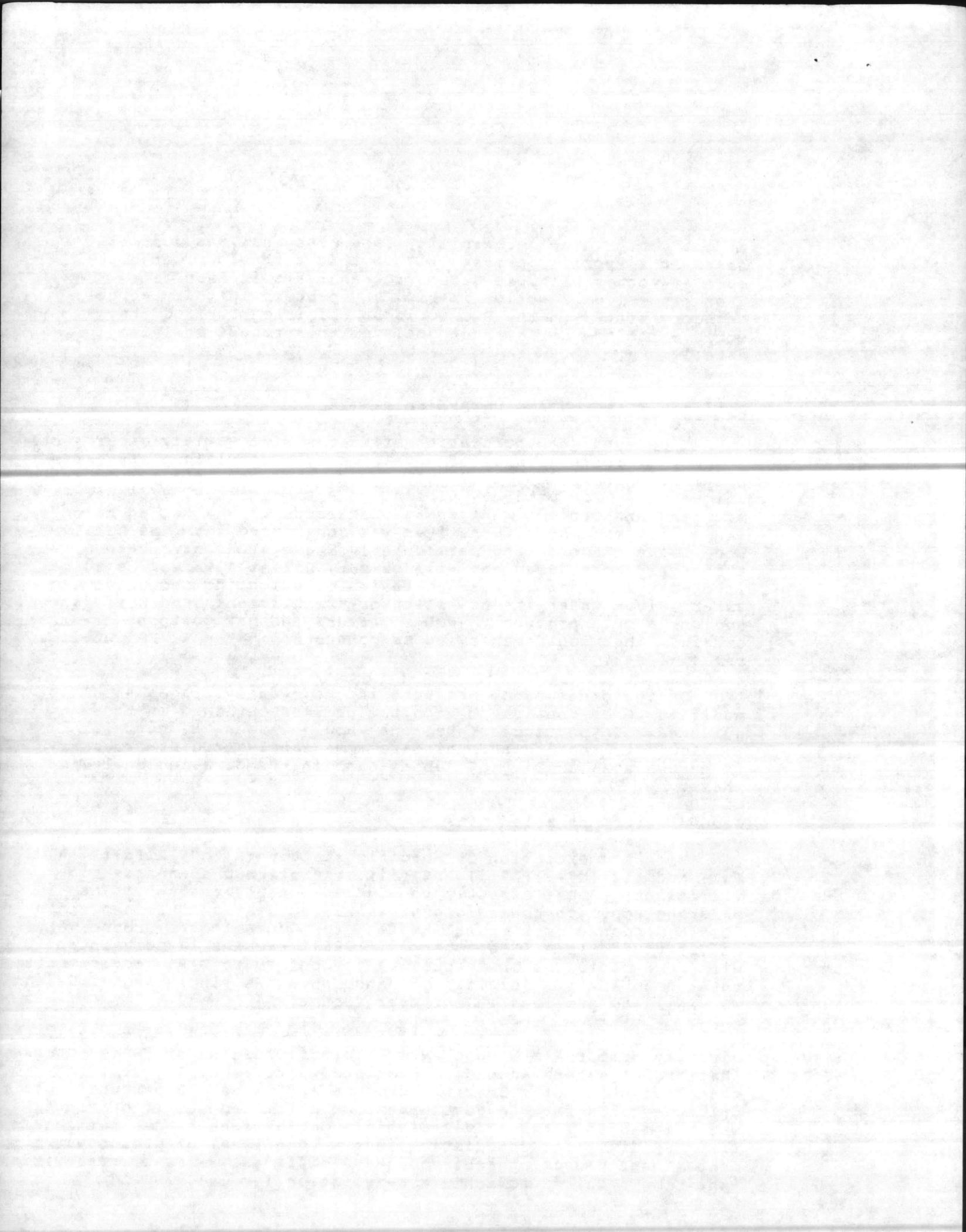
Superfund reauthorization affects a wide variety of projects in many different stages of development. The cleanup standards provisions in §121 will affect ongoing projects in a particularly unique way. For projects closest to ROD signature, Regional managers and project managers should focus on whether an adequate range of treatment alternatives was considered for feasibility, and whether Federal and particularly State ARARs have been thoroughly considered and will be met, unless a waiver is to be invoked. If there is a sound basis for selecting and rejecting alternatives under the new statutory requirements and preferences, Regions should proceed to ROD signature and may postpone treatability studies (that would otherwise be conducted in the RI/FS) until remedial design.

On the other hand, projects in their early stages should be modified to be consistent with the process outlined in this guidance. In particular, Regions should assess the need for treatability testing and initiate immediately studies necessary to ensure availability of needed data in the detailed analysis phase.

Ground Water Operable Units

With the exception of specific statements in §121(d)(2)(A)(ii) and §121(d)(2)(B)(i) and (ii), the cleanup standards provisions apply most directly to source control measures. The existing approach toward ground water remediation outlined in the "Draft Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites (September 29, 1986)" remains largely intact with some modifications necessary to conform to SARA requirements related to ARARs. Specific guidance on ARARs, including MCLGs and WQC, will be provided in the near future.

The remedial approach outlined in the Draft Guidance derives directly from EPA's Ground Water Protection Strategy, which states that ground waters should be protected differentially based on characteristics of vulnerability, use and value. Superfund's Draft Guidance calls for the development of a limited number of ground water remedial alternatives within a performance range, defined in terms of different remediation levels (the level of ground water contaminant reduction achieved), and different rates of restoration (the time required to achieve remediation levels).

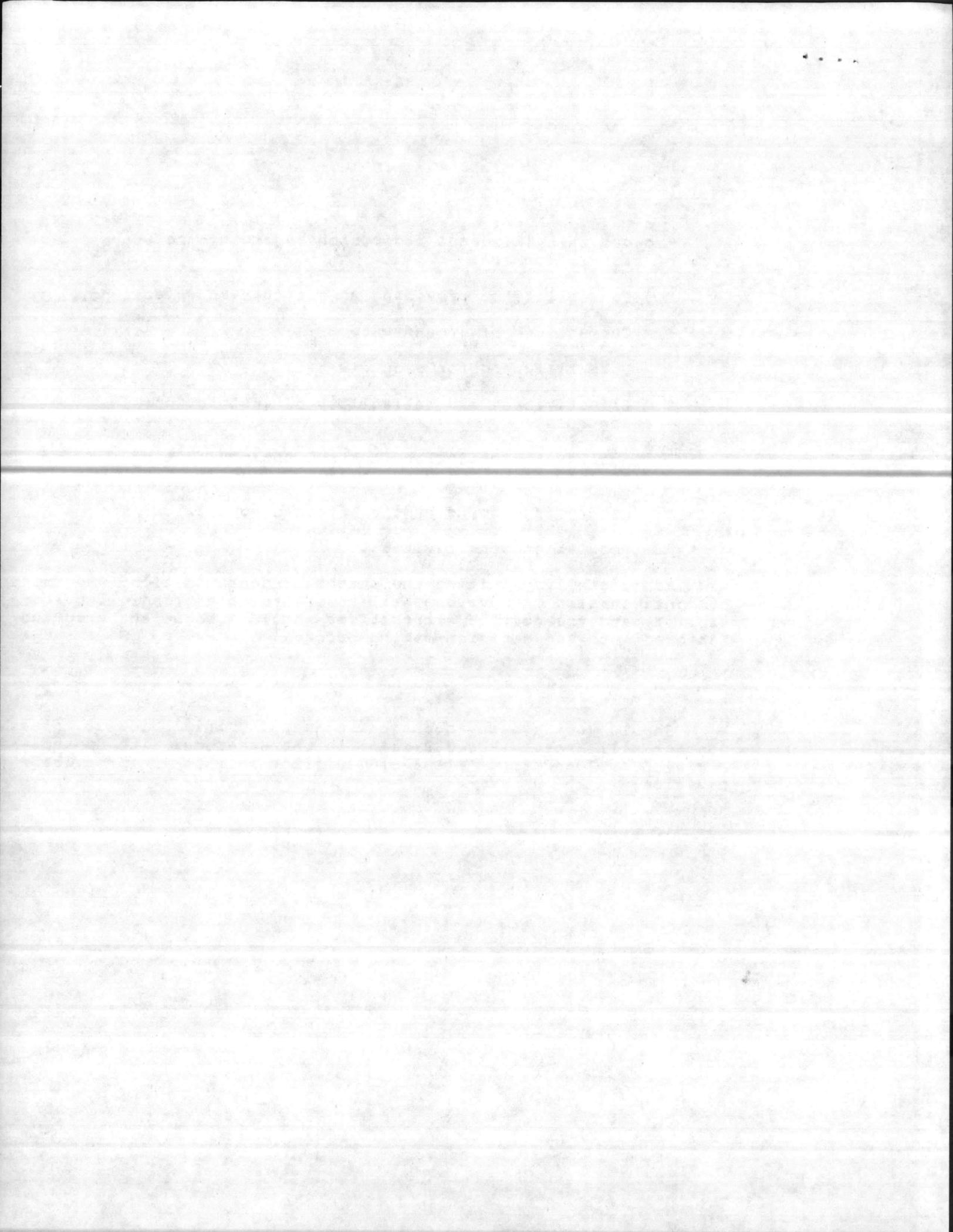


Factors that influence a decision regarding the appropriate rate of restoration are:

- Feasibility of providing an alternative water supply;
- Current use of ground water;
- Potential need for ground water;
- Effectiveness and reliability of institutional controls;
- Ability to monitor and control the movement of contaminants in ground water;
- Other risks borne by the affected population; and
- Population sensitivities.

Additionally, limiting the extent of contamination, the impact of contamination on environmental receptors, the technical practicability and the cost of alternatives should also be analyzed and factored into the decision-making process.

Should you have any questions concerning this guidance, please contact Bill Hanson (FTS 382-2345) in the Hazardous Site Control Division or John Cross (FTS 475-6770) in the CERCLA Enforcement Division.





DIRECTIVE NUMBER: 9355.0-21

TITLE: Additional Interim Guidance for FY'87
Records of Decision

APPROVAL DATE: July 24, 1987

EFFECTIVE DATE: July 24, 1987

ORIGINATING OFFICE: OERR/HSCD

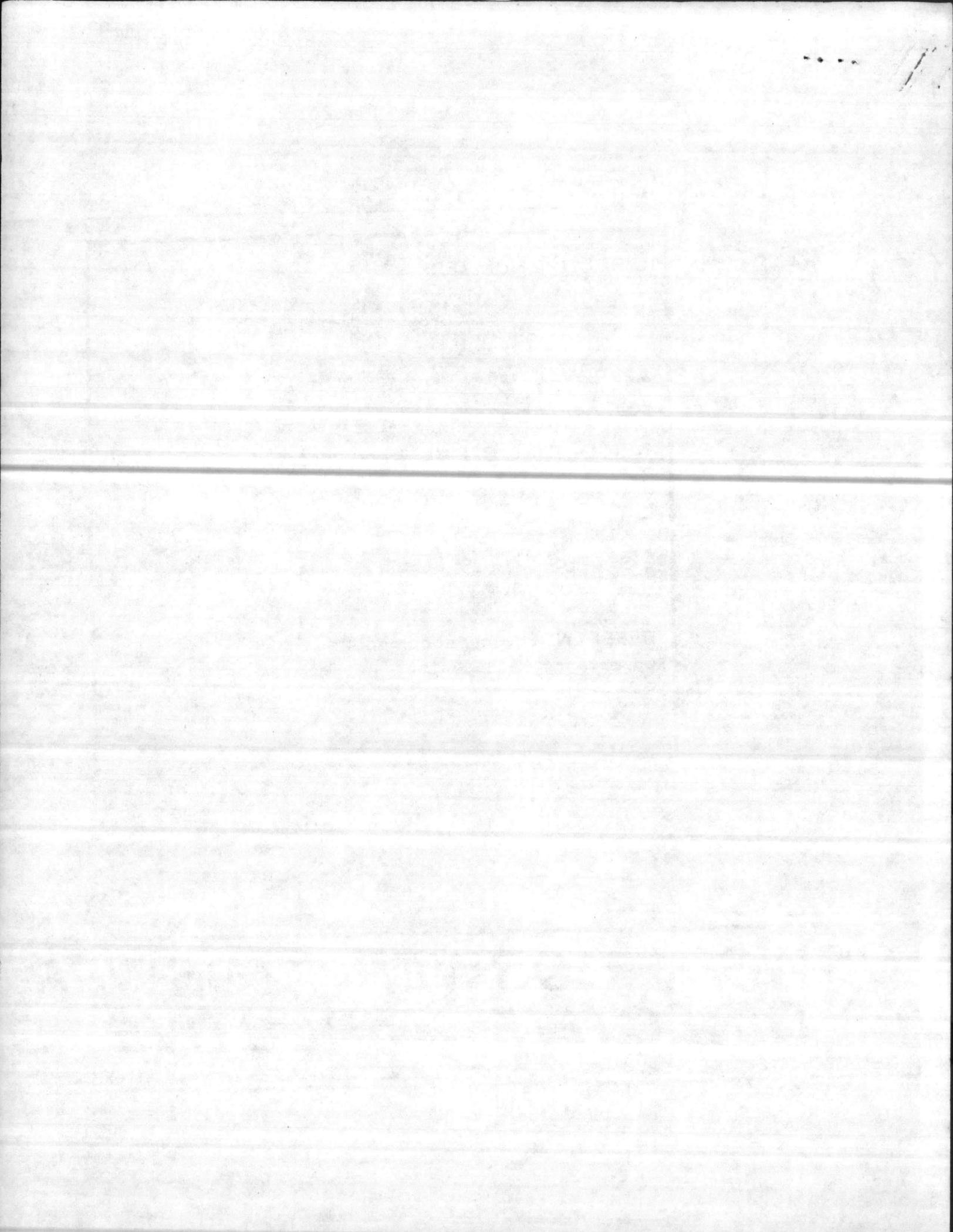
FINAL

DRAFT

STATUS:

REFERENCE (other documents):
Supplements 9355.0-19

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CORRECTIVE ACTION PROCESS

AGENCY

- §3008(h) order may be issued before, during, or after RFA
- Oversight

- Permit may be issued before, during, or after RFI (public participation)

- RFI Report approved
- Clean-up requirements established

- Oversight

- Corrective measures selected
- §3008(h) order issued/amended
- Permit issued/modified
- Public participation

- Oversight

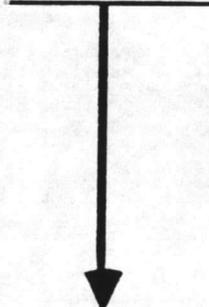
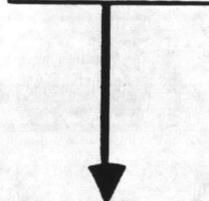
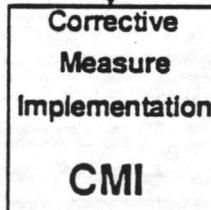
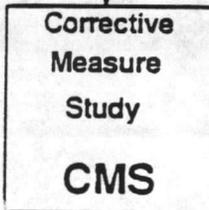
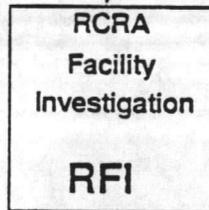
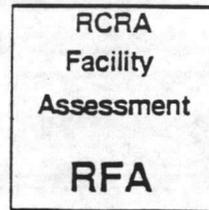
OWNER/OPERATOR

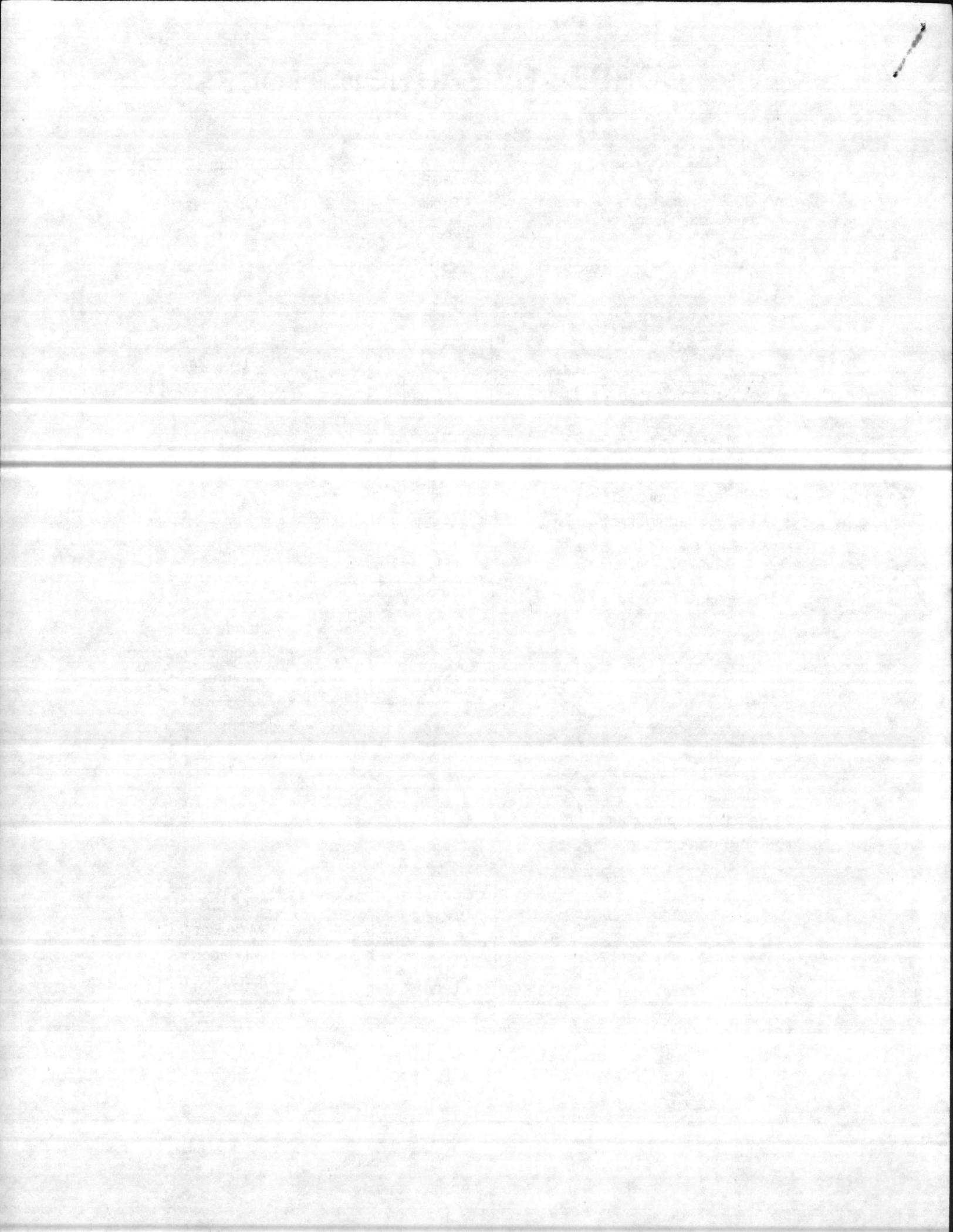
- Interim measures

- RFI Workplan
- Facility Investigation
- RFI Report
- Interim measures

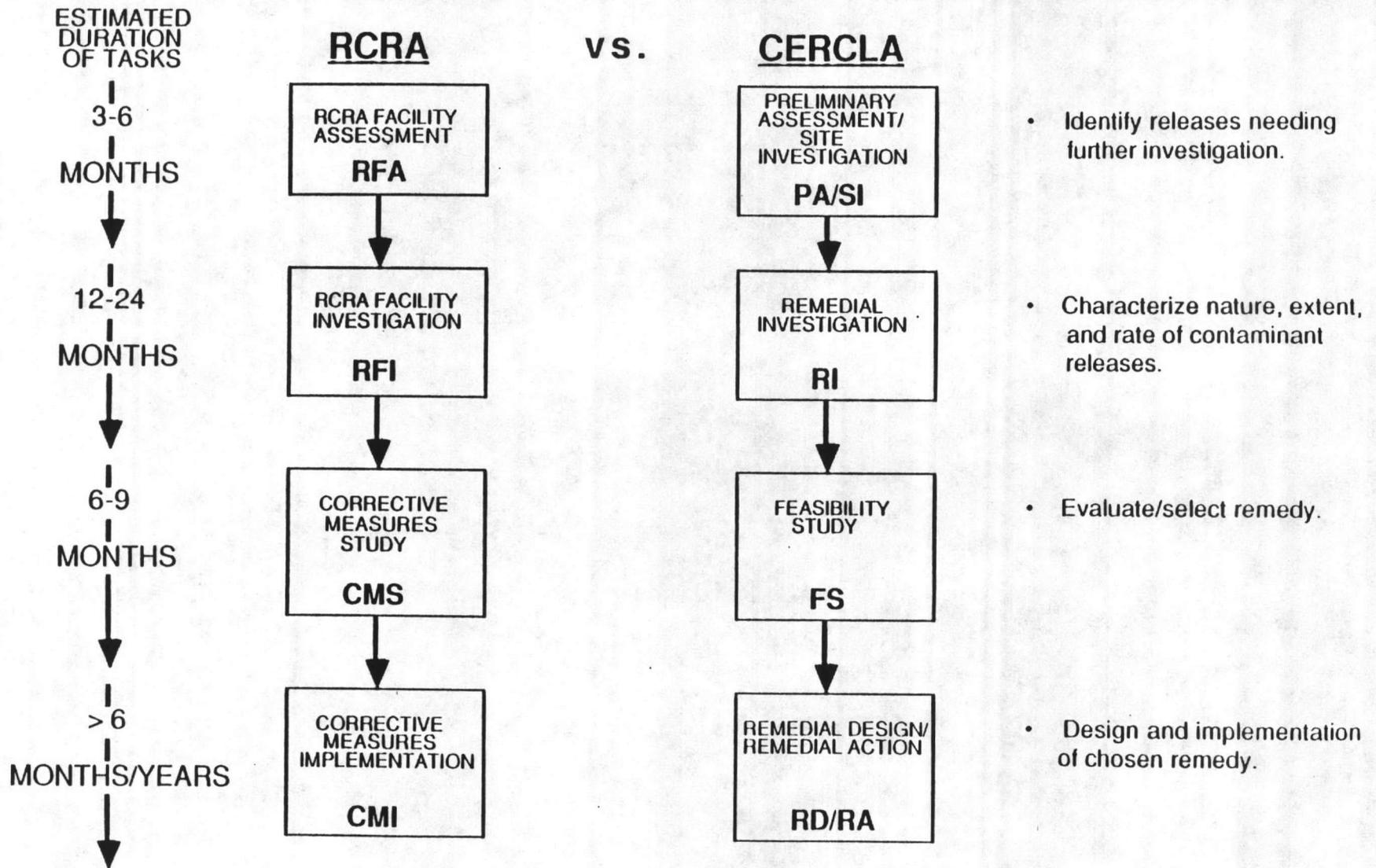
- Identify and evaluate Alternatives
- Recommend corrective measure(s)
- CMS Report
- Interim measures

- CMI Plans
- CM design & Construction
- CMI Report
- Operations/maintenance
- Monitoring

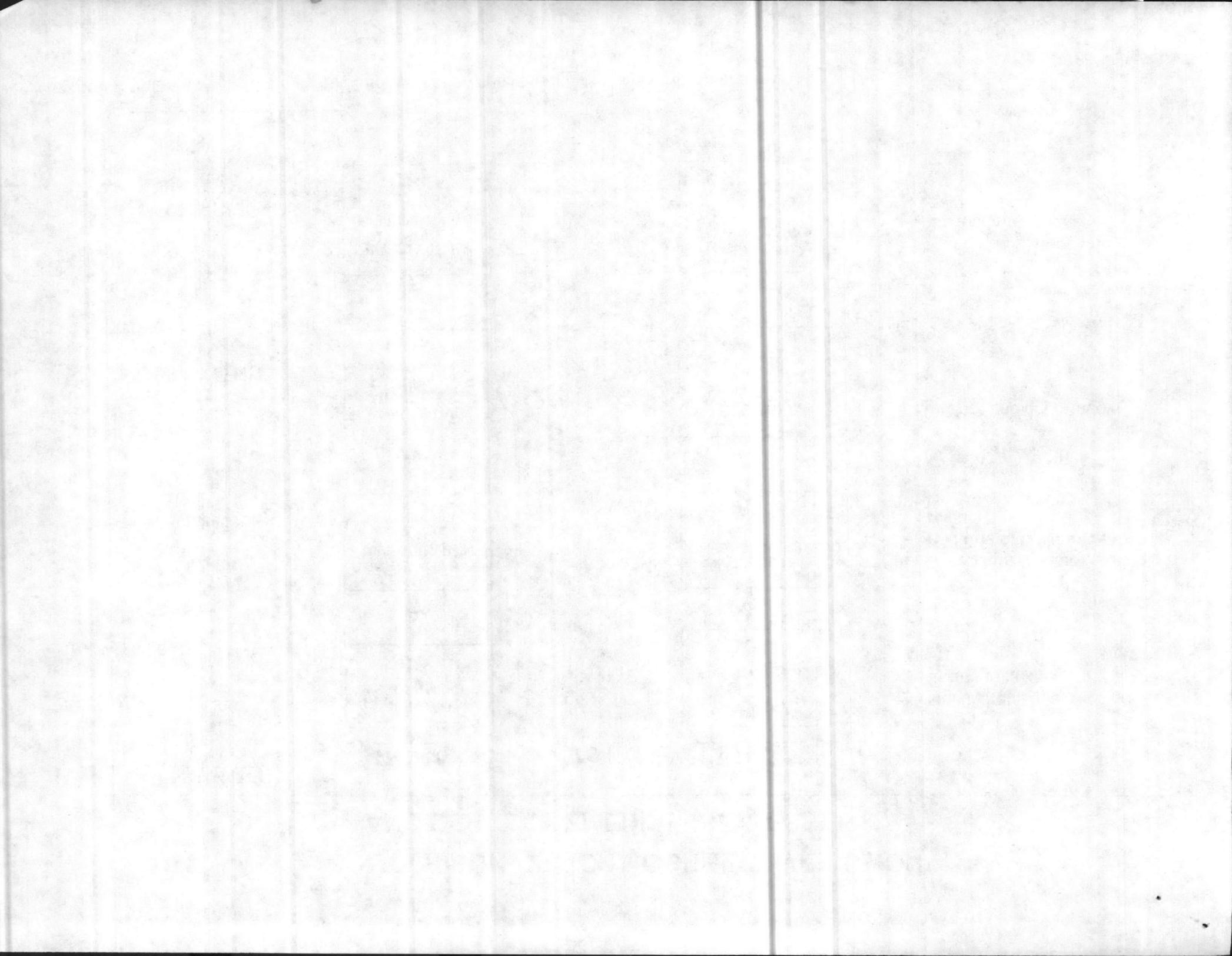




COMPARISON OF RCRA CORRECTIVE ACTION AND CERCLA REMEDIAL PROCESSES*

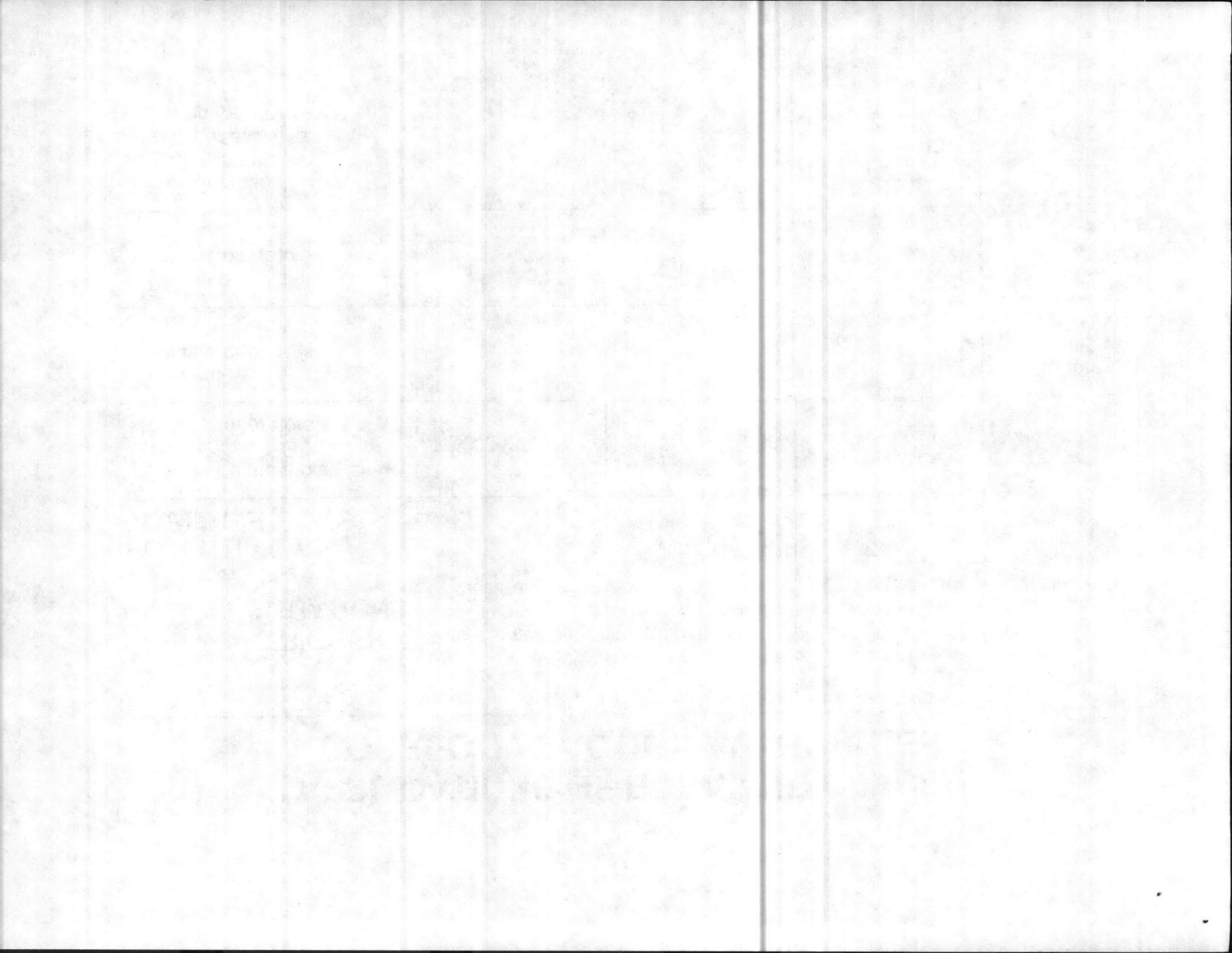


*Interim Measures may be performed at any point in the corrective action process.



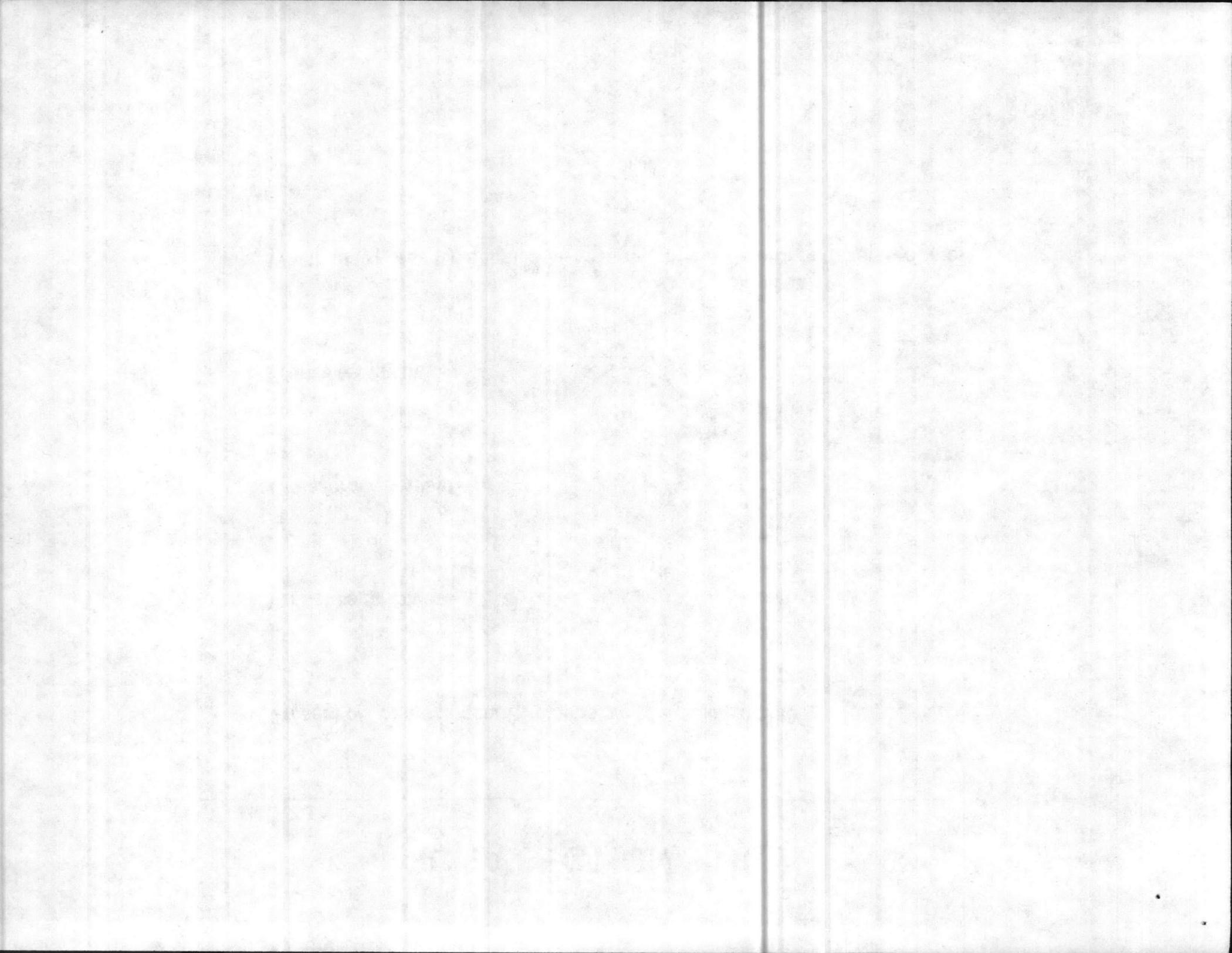
APPLICATIONS OF RCRA AND CERCLA CORRECTIVE ACTION AUTHORITIES

TRIGGER SITUATIONS POTENTIALLY LIABLE PERSONS	Non-Compliance with Subtitle C	Substantial Hazard	Imminent and Substantial Endangerment	Release of Hazardous Waste or Hazardous Constituents
Present generators, transporters, and owners/operators	§3008(a)			
Present owners/operators				§§3008(h) 3004(u) 3004(v)
Past or present owners/operators		§3013		
Past or present generators, transporters, and owners/operators			CERCLA §§104, 106 RCRA §7003	



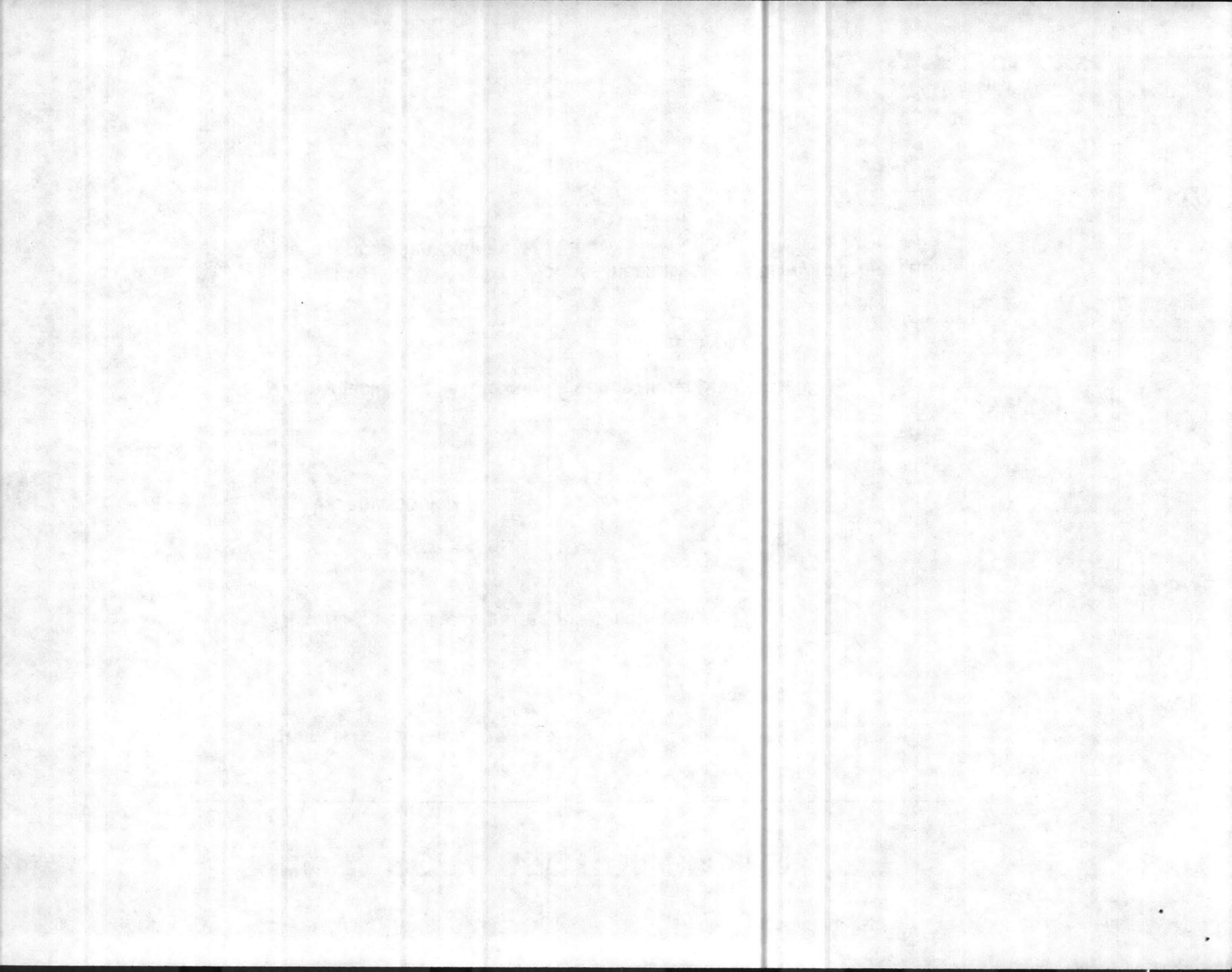
RCRA SECTION 3013

- **Present o/o or most recent previous o/o of a facility or site**
- **Presence or release**
- **Of hazardous waste**
- **From a facility or site**
- **Which may present a substantial hazard to human health or the environment.**



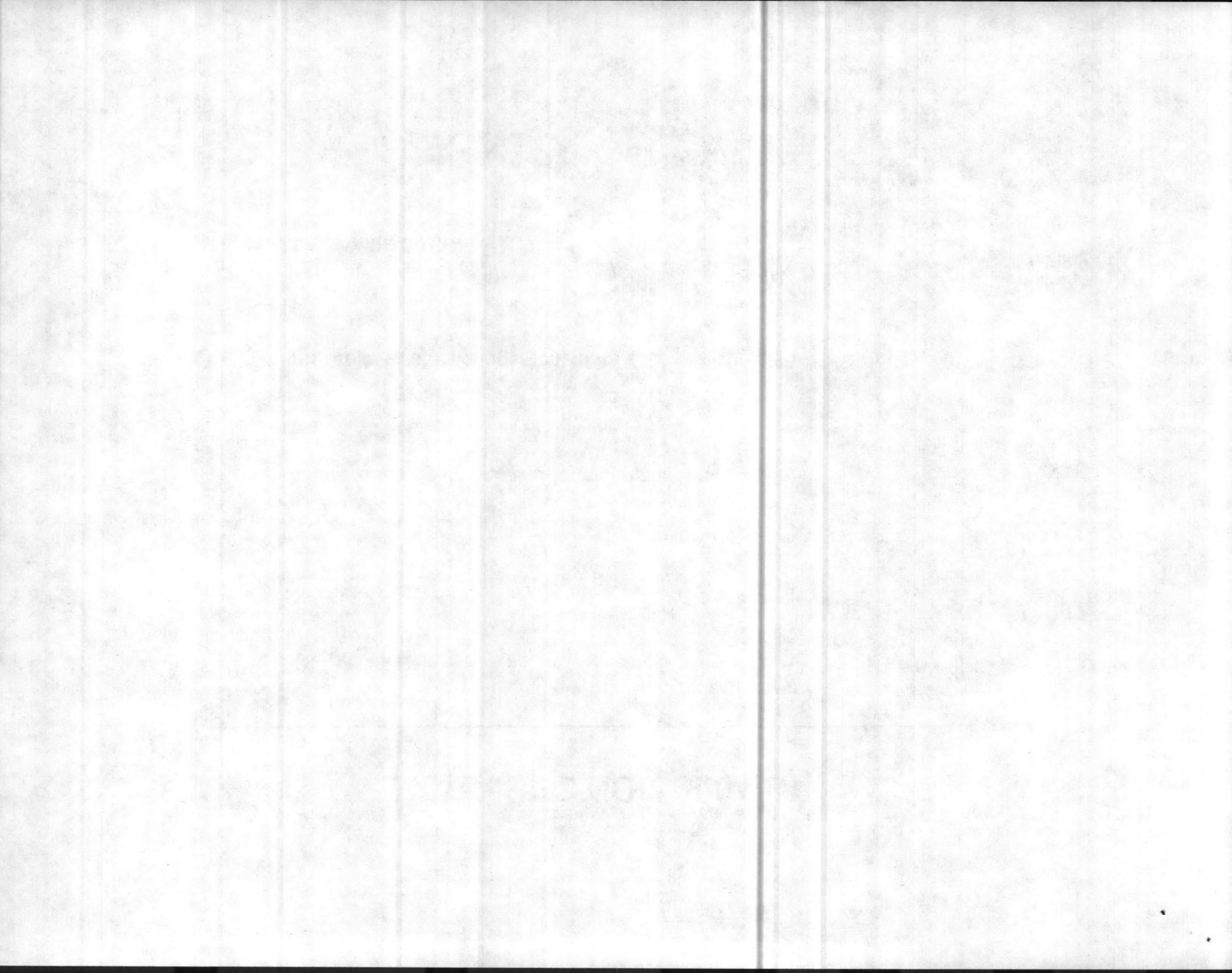
RCRA SECTION 3008(h)

- **There is or has been a release**
- **Of hazardous waste or hazardous constituents**
- **Into the environment**
- **From a facility subject to interim status under Section 3005(e)**
- **Corrective action or other response measure is necessary to protect human health or the environment**



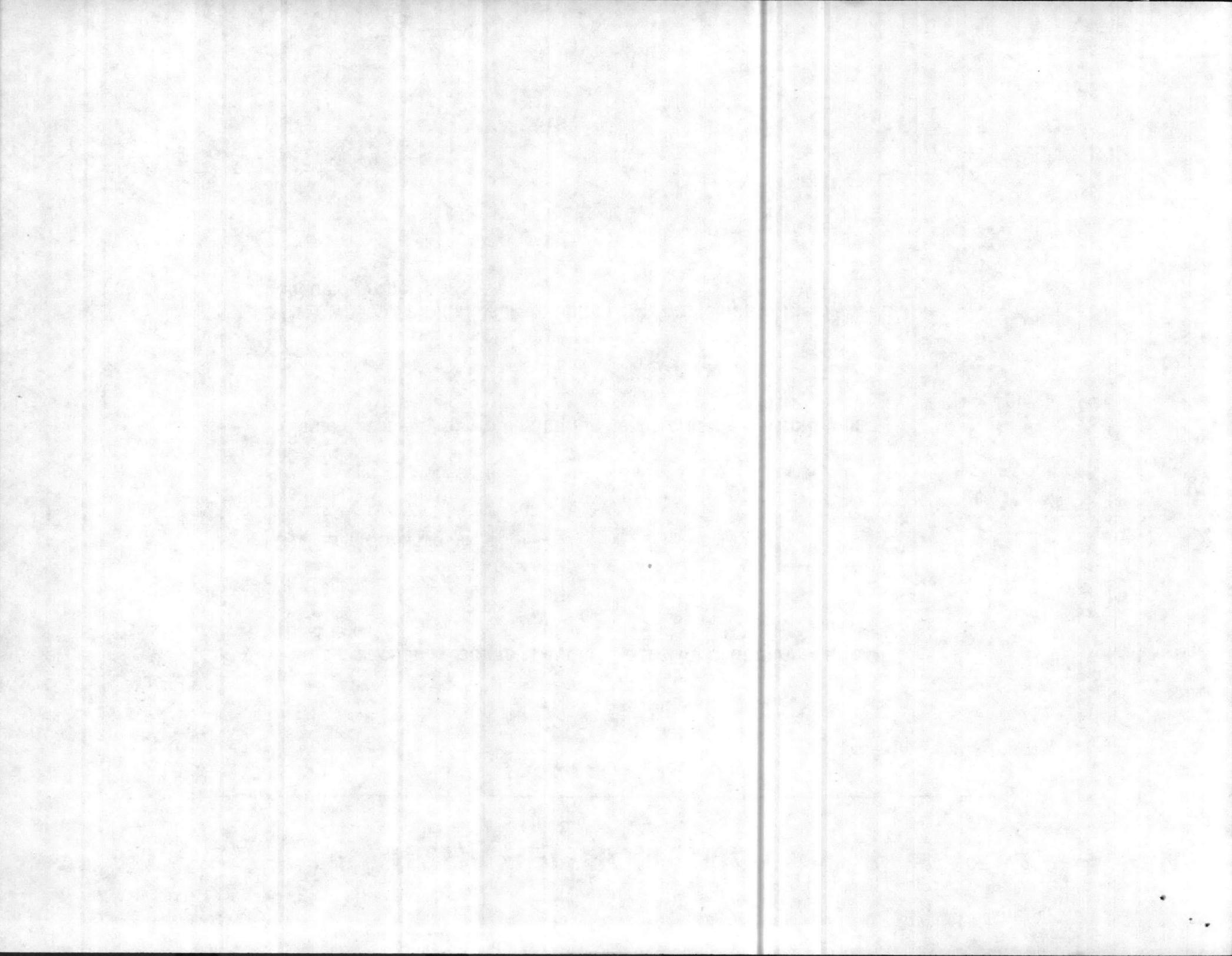
RCRA SECTION 3004(u)

- **Releases**
- **Of hazardous waste or hazardous constituents**
- **From solid waste management units**
- **At a permitted TSDF**

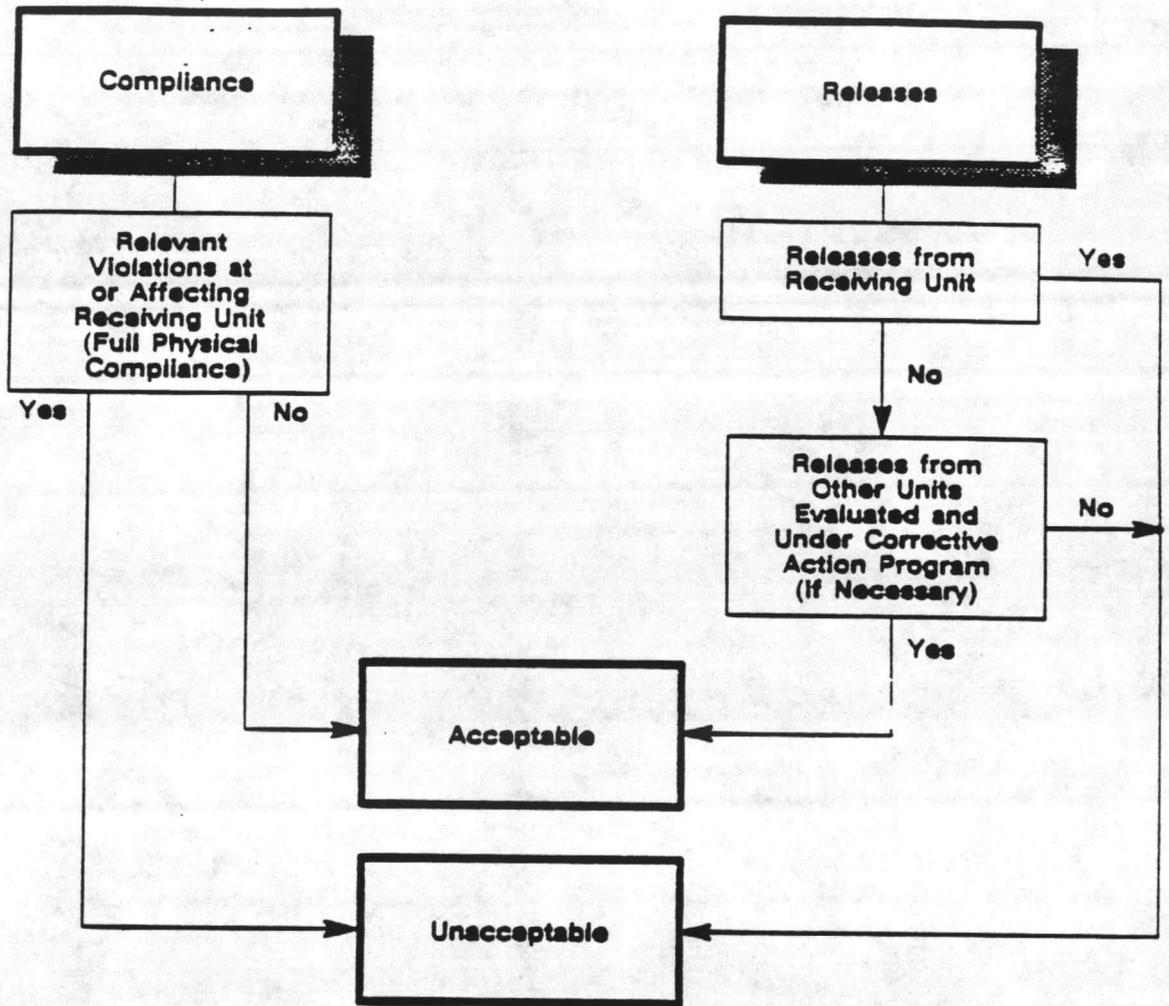


RCRA SECTION 3004(v)

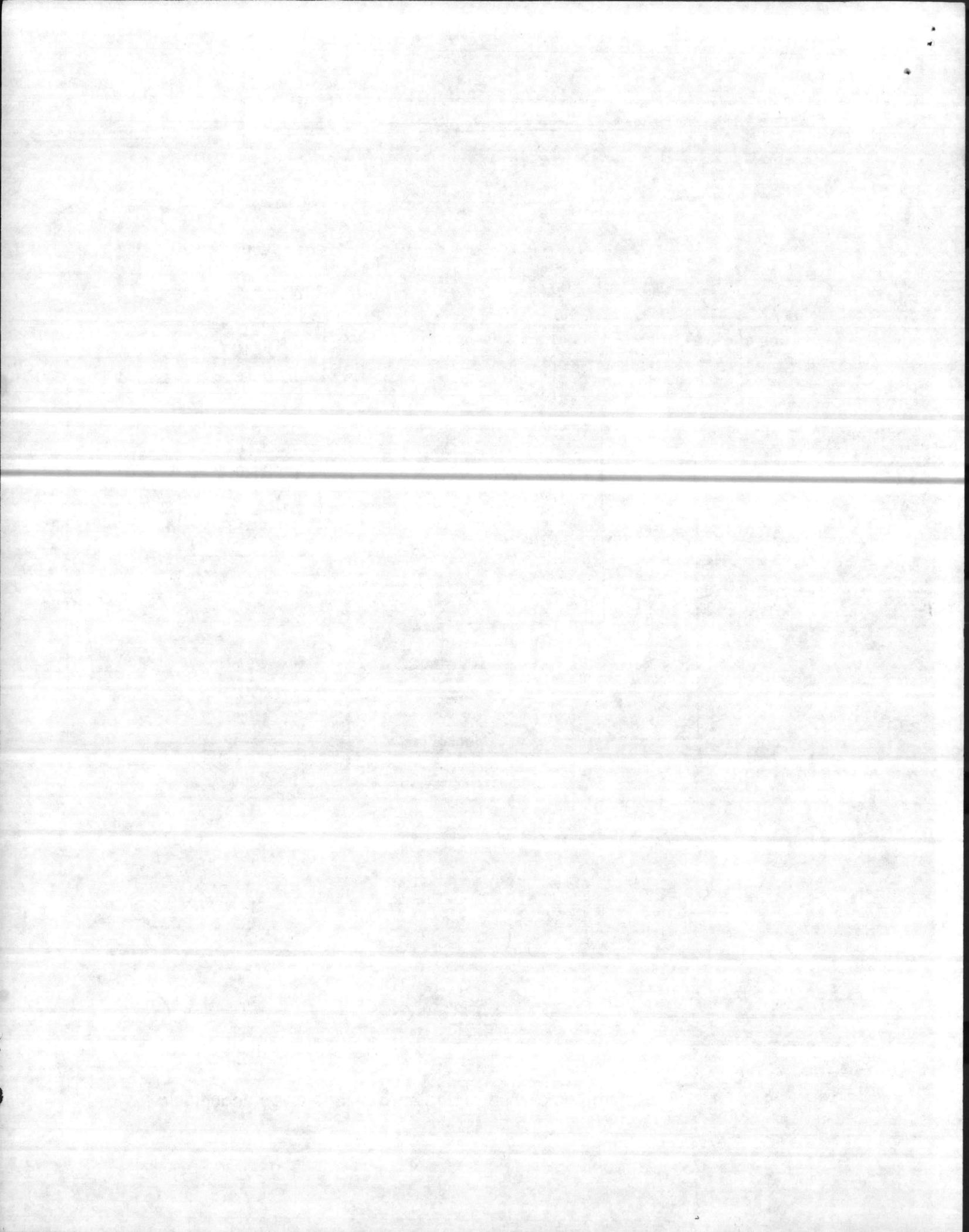
- **Corrective action is required beyond the facility boundary of a TSDF for releases**
- **Of a hazardous waste**
- **Where necessary to protect human health and the environment.**
- **The owner/ operator is able to obtain the permission of the owner of the affected property.**



Acceptability Criteria*



* Facility must meet both compliance and release criteria to be acceptable



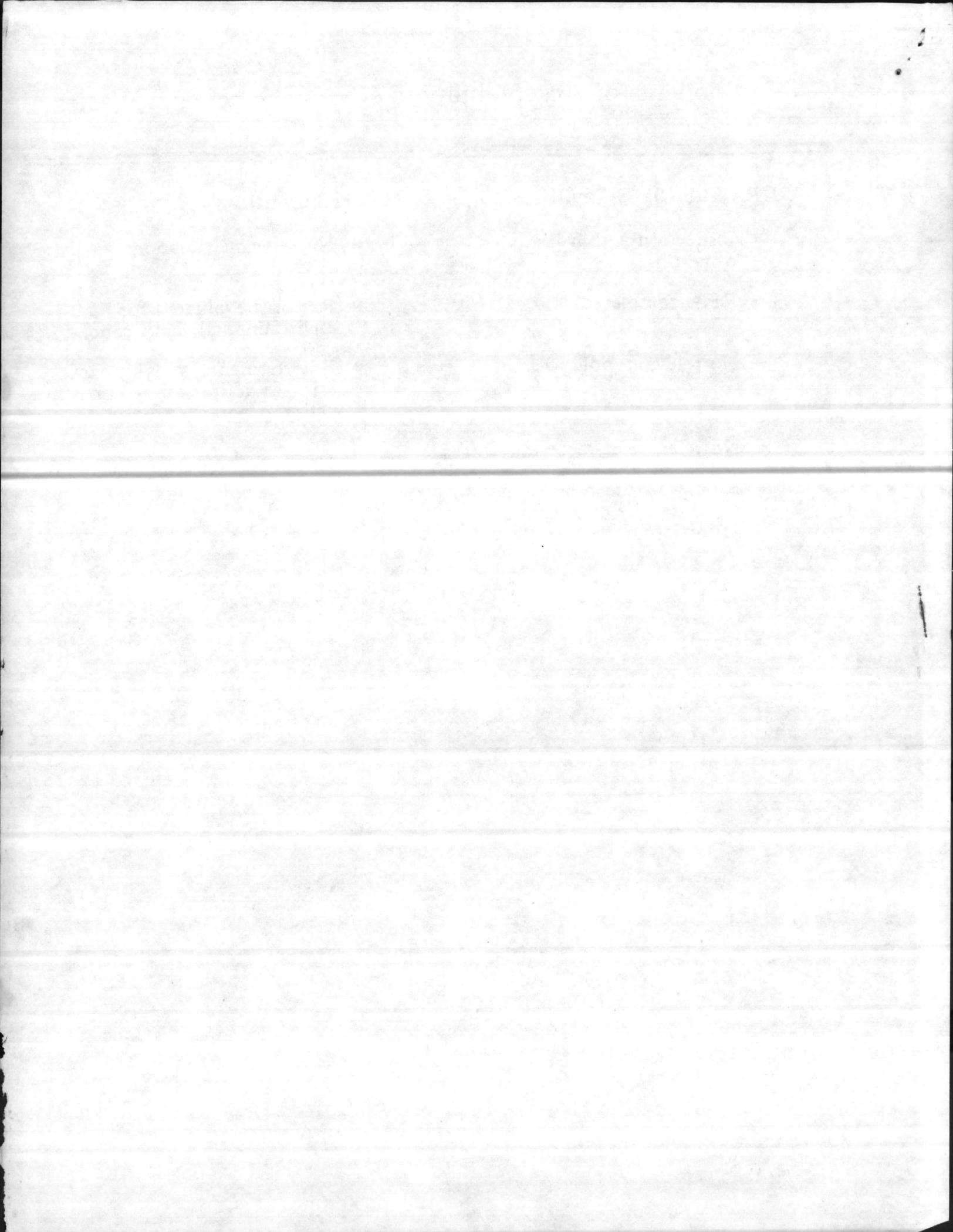
Components of Acceptability to Receive Superfund Wastes

RCRA Subtitle C Facilities

- Inspection within last 6 months
- RFA completed
- No relevant violations
- No releases at receiving unit
- Releases from other units addressed by corrective action program

Other Facilities

- No relevant violations
- Releases evaluated for environmental significance
- Environmentally significant releases addressed by corrective action program

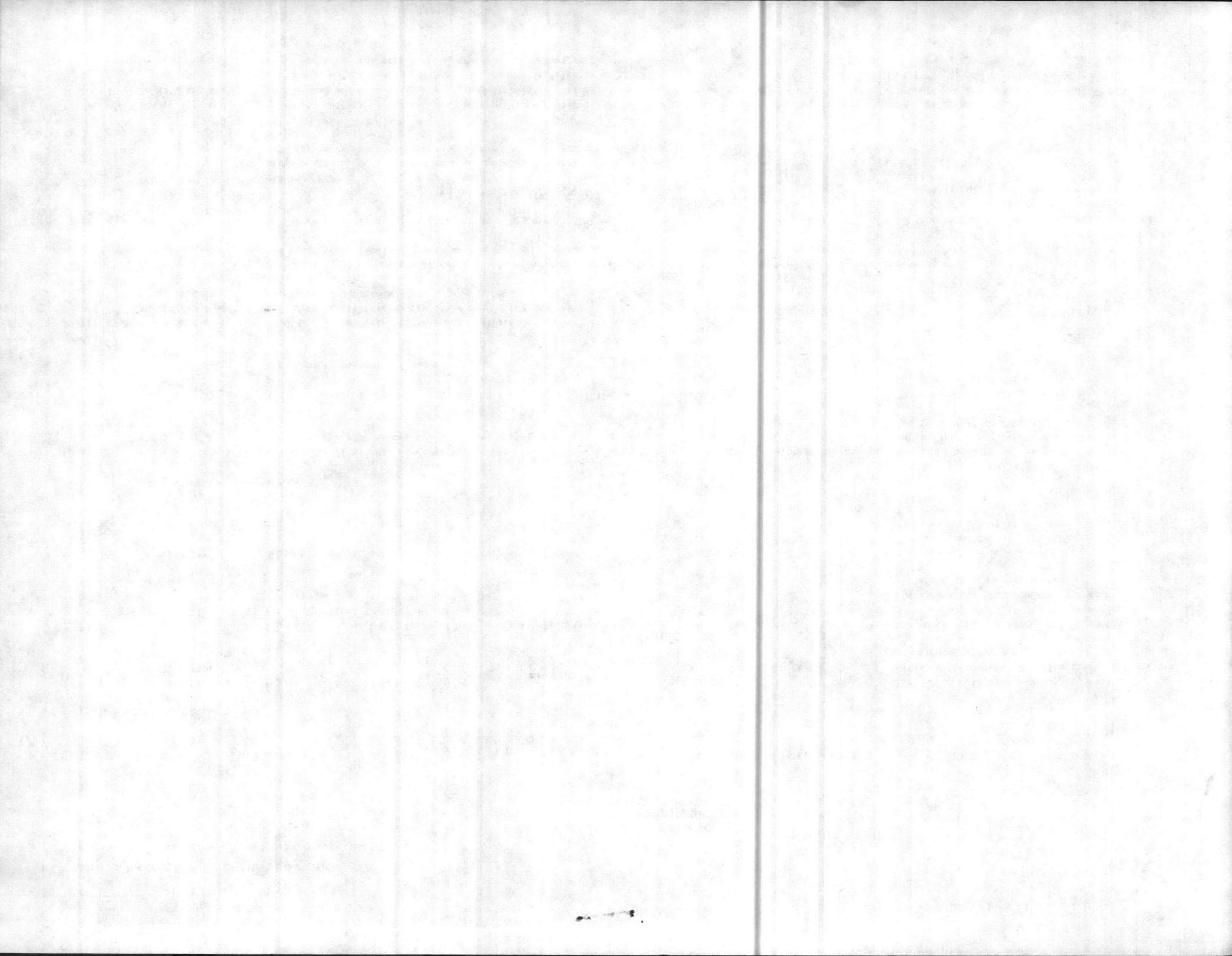


DISCLAIMER: This document does not reflect official EPA policy. This is an informal summary provided for discussion/information purposes only.

SUMMARY OF EXECUTIVE ORDER NO. 12580
DELEGATION OF CERCLA/SARA REQUIREMENTS

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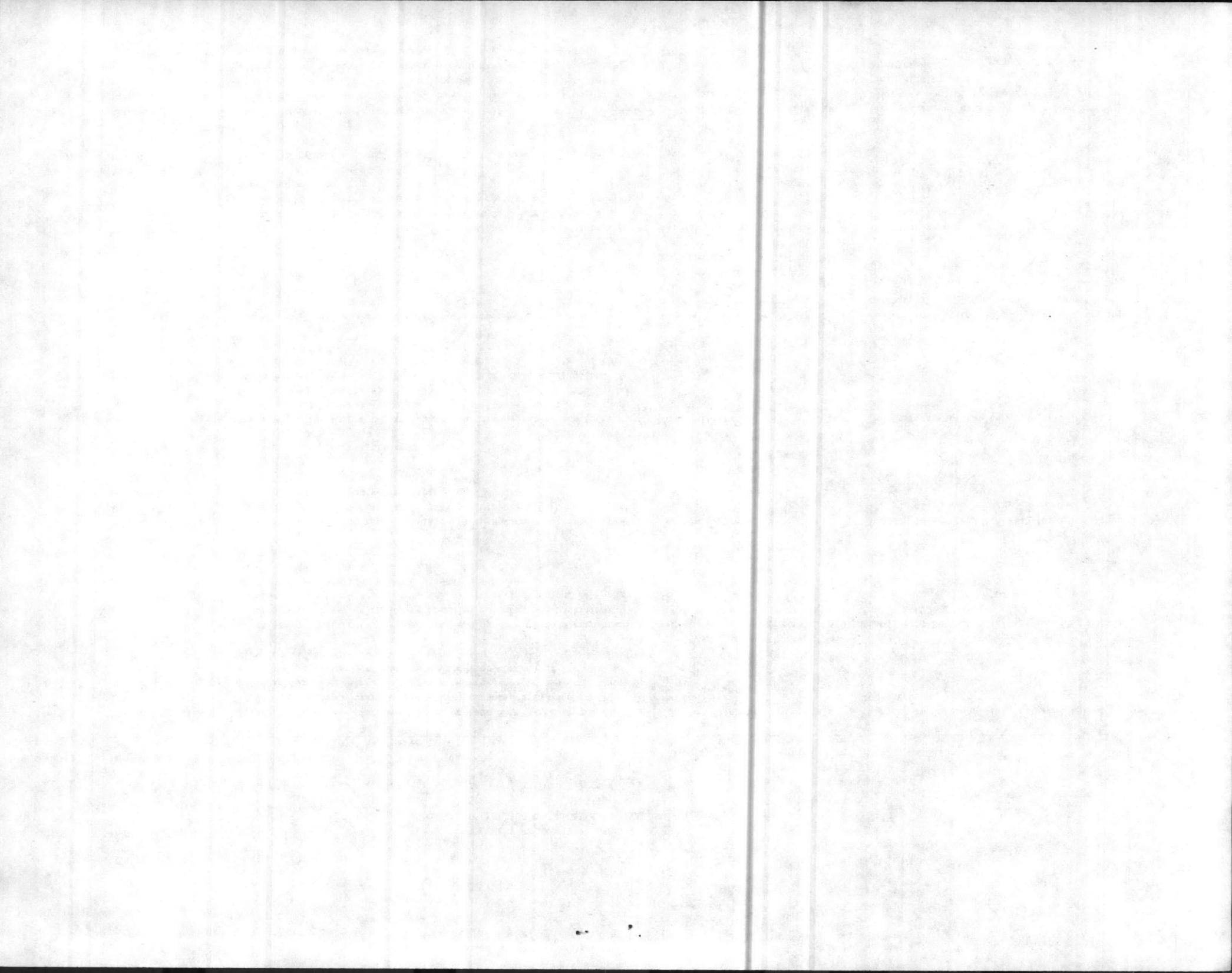
E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
Section 1: National Contingency Plan				
1(b)(1)	105 (a), (b), (c), and (g), 125, 301(f)	Revise the National Contingency Plan (the NCP)	Administrator of the Environmental Protection Agency (the Administrator)	The NCP is a legally binding regulation that outlines the process for site investigations and cleanup action.
1(b)(2)	118(p)	Remove the Silver Creek Tailings Site in Park City, Utah from the National Priorities List (NPL) ^a	The Administrator	Designates removal of the site from the proposed NPL unless it is determined that the facility meets the requirements of the hazardous ranking system (HRS) ^b .
1(c)	107(f)(2)(A)	Designate federal and state trustees for natural resources	Authority retained by the President of the United States	The Secretaries of the Interior, Agriculture, Commerce, and Energy will be among those designated as federal trustees for natural resources.
Section 2: Response and Related Authorities				
2(a)	First sentence of 104(b)1	Investigate illnesses, diseases, or complaints that are attributable to a hazardous substance, pollutant, or contaminant.	Secretary of Health and Human Services	Functions will be performed through the Public Health Service in accordance with Section 104(i) of CERCLA.
2(b)	104(e)(2)(C), 113(k)(2), 119(c)(7), and 121(f)(1)	Issue regulations and guidelines for handling confidential data, participation of interested persons, indemnification of subcontractors, and involvement of states.	The Administrator	The National Response Team (NRT) ^c will be consulted.
2(c)(1)	104(a) and the second sentence of 126(b)	Provide for the permanent relocation of residents, businesses, and community facilities or temporary evacuation and housing for threatened individuals.	Director of the Federal Emergency Management Agency	
2(c)(2)	117(a) and (c), and 119	Develop guidelines for public participation in remedial action plans and for remedial action contractors.	Director of the Federal Emergency Management Agency	Subject to Section 2(b) of this E.O. ^d
2(d)	104(a), (b) and (c)(4), 113(k), 117(a) and (c), 119, and 121	Establish guidelines for remedial actions by potentially responsible parties (PRPs), information studies and investigations, selection of remedial actions, administrative records and participation procedures, public participation, remedial action contractors, and cleanup standards for releases or threatened releases from a facility or vessel under the jurisdiction, custody, or control of the designated departments.	Secretaries of Defense and Energy	Subject to Sections 2(a), (b), and (c) of this E.O. Functions will be consistent with Section 120 of CERCLA regarding federal facilities.
2(e)(1)	104(a), (b), and (c)(4), and 121	Establish guidelines for remedial actions by PRPs, information studies and investigations, selection of remedial actions, cleanup standards, and non-emergency removal actions for releases or threatened releases from sites not on the NPL and removal actions other than emergencies.	Heads of Executive Departments and Agencies	Subject to Sections 2(a), (b), (c) and (d) of this E.O. The Administrator will define the term "emergency."



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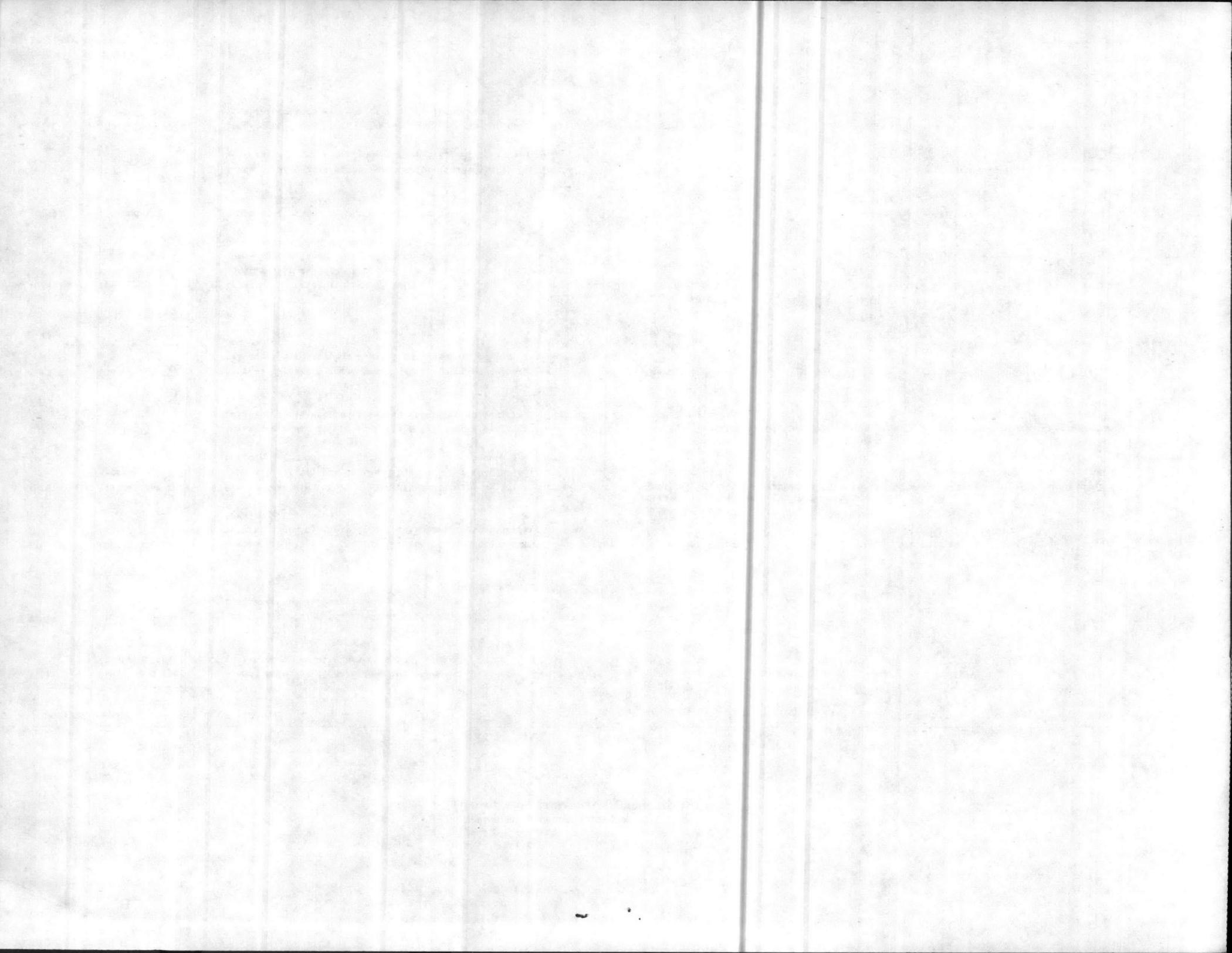
E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
2(e)(2)	104(b)(2), 113(k), 117(a) and (c), and 119	Establish guidelines for investigations, administrative records and participation procedures, response action contractors, and public participation for releases or threatened releases from a facility or vessel under the jurisdiction, custody or control of the designated departments and agencies.	Heads of Executive Departments and Agencies	Subject to Sections 2(b), (c), and (d) of this E.O.
2(f)	104(a), (b), and (c)(4), 113(k), 117(a) and (c), 119, and 121	Establish guidelines for remedial actions by PRPs, information studies and investigations, selection of remedial actions, administrative records and participation procedures, public participation, response action contractors, and cleanup standards for releases or threatened releases involving the coastal zone, waters of the Great Lakes, ports, and harbors.	Secretary of the Department in which the Coast Guard is oper- ating	Subject to Sections 2(a), (b), (c), (d), and (e) of this E.O.
2(g)	101(24), 104(a), (b), (c)(4), and (c)(9), 113(k), 117(a) and (c), 119, 121, and 126(b)	Provide oversight for reponse actions, information studies and inves- tigations, siting, public participation, response action contractors, cleanup standards, and worker protection standards.	The Administrator	Subject to Sections 2(a), (b), (c), (d), (e), and (f) of this E.O.
(2)h	104(c)(3)	Provide special assurances in the case of a remedial action to be taken on land or water held by an Indian tribe or member of a tribe, held by the United States in trust for Indians, or within the borders of an Indian reservation. Future maintenance, cost-sharing, and the location of an available hazardous waste disposal facility for the remedial action is the responsibility of the President.	The Administrator	The Secretary of the Interior will be consulted.
2(i)	104(c) and (d)	Establish guidelines for limitations on response actions and cooperative agreements with states to conduct remedial actions.	The Coast Guard, Secretary of Health and Human Services, Director of the Federal Emergency Management Agency, and the Administrator.	Subject to Section 2(d), (e), (f), (g), and (h) of this E.O.
2(j)(1)	104(e)(5)(A)	Issue Compliance Orders for information gathering and access to a site following the release or threatened release from any facility or vessel under the jurisdiction, custody, or control of the designated departments or agencies.	Heads of Executive Departments and Agencies	The Attorney General must concur on all decisions and activities.
2(j)(2)	104(e)	Establish guidelines for information gathering and access procedures for Superfund sites.	Heads of Executive Departments and Agencies	
2(k)	104(f), (g), (h), 1(i), and (j)	Enforce OSHA standards for hazardous waste site work, Davis-Bacon Wage rate provisions, and emergency procurement powers; establish and maintain a national registry for diseases and illnesses associated with exposure to toxic substances and acquire property, if necessary, to conduct remedial investigations.	Heads of Executive Departments and Agencies	The exercise of authority under Section 104(h) is subject to the approval of the Administrator of the Office of Federal Procurement Policy.



SUMMARY OF EXECUTIVE ORDER NO. 12580
DELEGATION OF CERCLA/SARA REQUIREMENTS

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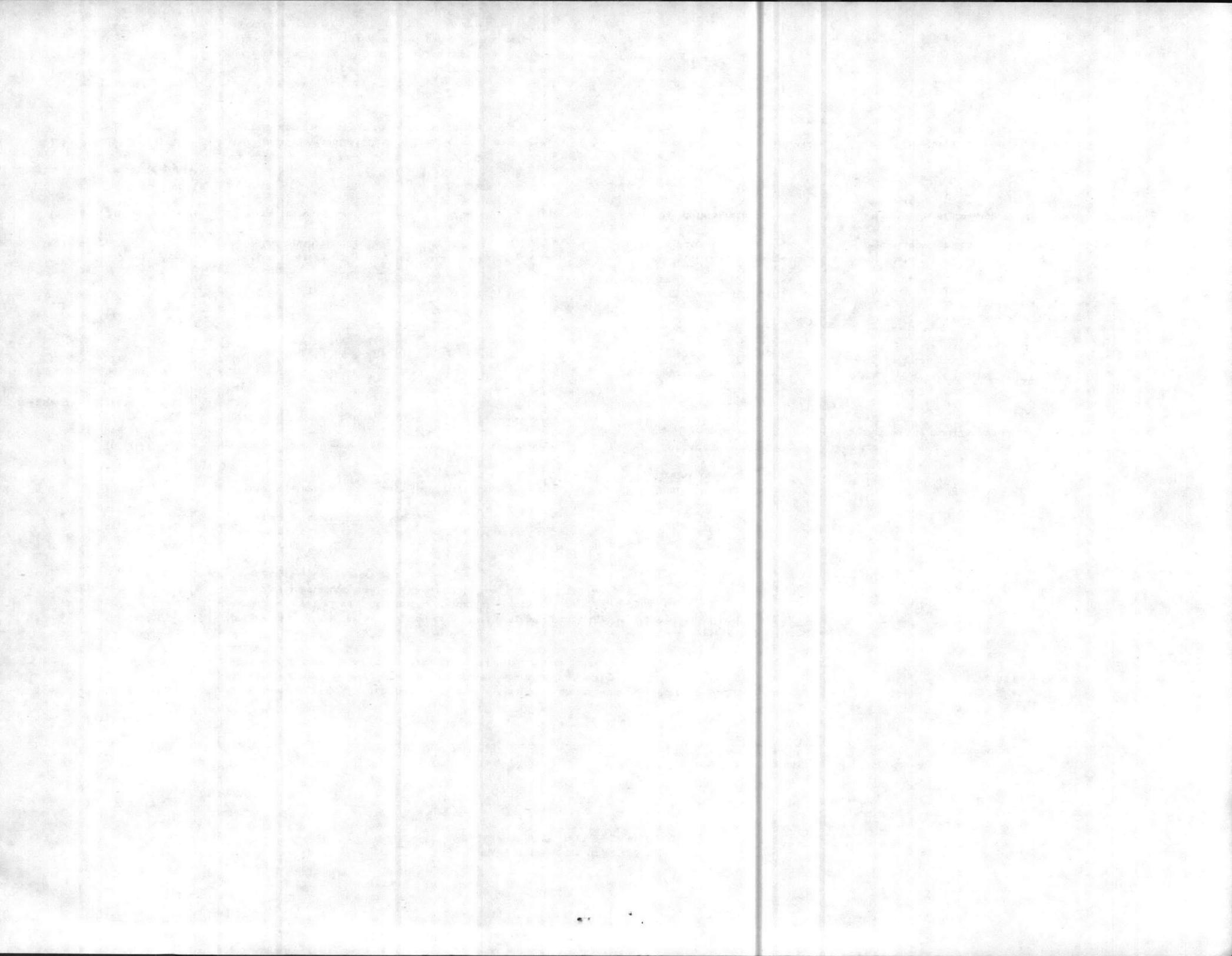
E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
Section 3: Cleanup Schedules				
3(a)	116(a) and the first two sentences of 105(d)	Assess releases of hazardous substances or pollutants and complete preliminary and site assessments for CERCLA sites.	Heads of Executive Departments and Agencies	
3(b)	116 and 105(d)	Enforce schedules for remedial actions under CERCLA/SARA and for assessment of releases.	The Administrator	
Section 4: Enforcement				
4(a)	109(d) and 122(e) (3)(A)	Develop regulations and guidelines for violations subject to criminal penalties and preliminary allocations of responsibility to the PRPs.	The Administrator	This effort will be exercised in consultation with the Attorney General.
4(b)(1)	122 (except Sub-section (b)(1))	Provide oversight for settlement of releases or threatened releases from a facility, not on the NPL, and under the jurisdiction, custody, or control of the designated departments and agencies.	Heads of Executive Departments and Agencies	Functions will be exercised with the approval of the Attorney General. Subject to Section 4(a) of this E.O.
4(b)(2)	109 and 122	Investigate violations of Section 122, settlements, with respect to releases or threatened releases described in Section 4(b)(1) of this E.O.	Heads of Executive Departments and Agencies	Approval of the Attorney General is required.
4(c)(1)	106(a) and 122	Provide abatement actions and settlements for releases or threatened releases involving the coastal zone, waters of the Great Lakes, ports, and harbors.	The Coast Guard	Subject to Section 4(a) and (b)(1) of this E.O.
4(c)(2)	109	Issue civil penalties for violations of Sections 103 (a) and (b), notification requirements, and 122, settlements, for releases or threatened releases involving the coastal zone, waters of the Great Lakes, ports, and harbors.	The Coast Guard	Subject to Sections 4 (a) and (b)(2) of this E.O.
4(d)(1)	106 and 122	Administer abatement actions and settlements.	The Administrator	Subject to Sections 4 (a), (b)(1), and (c)(1) of this E.O.
4(d)(2)	109	Issue civil penalties and awards for violations of Sections 103, notices and penalties, and Section 122, settlements.	The Administrator	Subject to Sections 4 (a), (b)(2), and (c)(2) of this E.O.
4(e)	104 (e)(5)(A) and 106 (a)	Issue compliance orders and abatement action for the authority to seek information, enter, or conduct inspections, sampling, or response actions.	Executive Departments and Agencies	Approval of the Attorney General is required.



SUMMARY OF EXECUTIVE ORDER NO. 12580
DELEGATION OF CERCLA/SARA REQUIREMENTS

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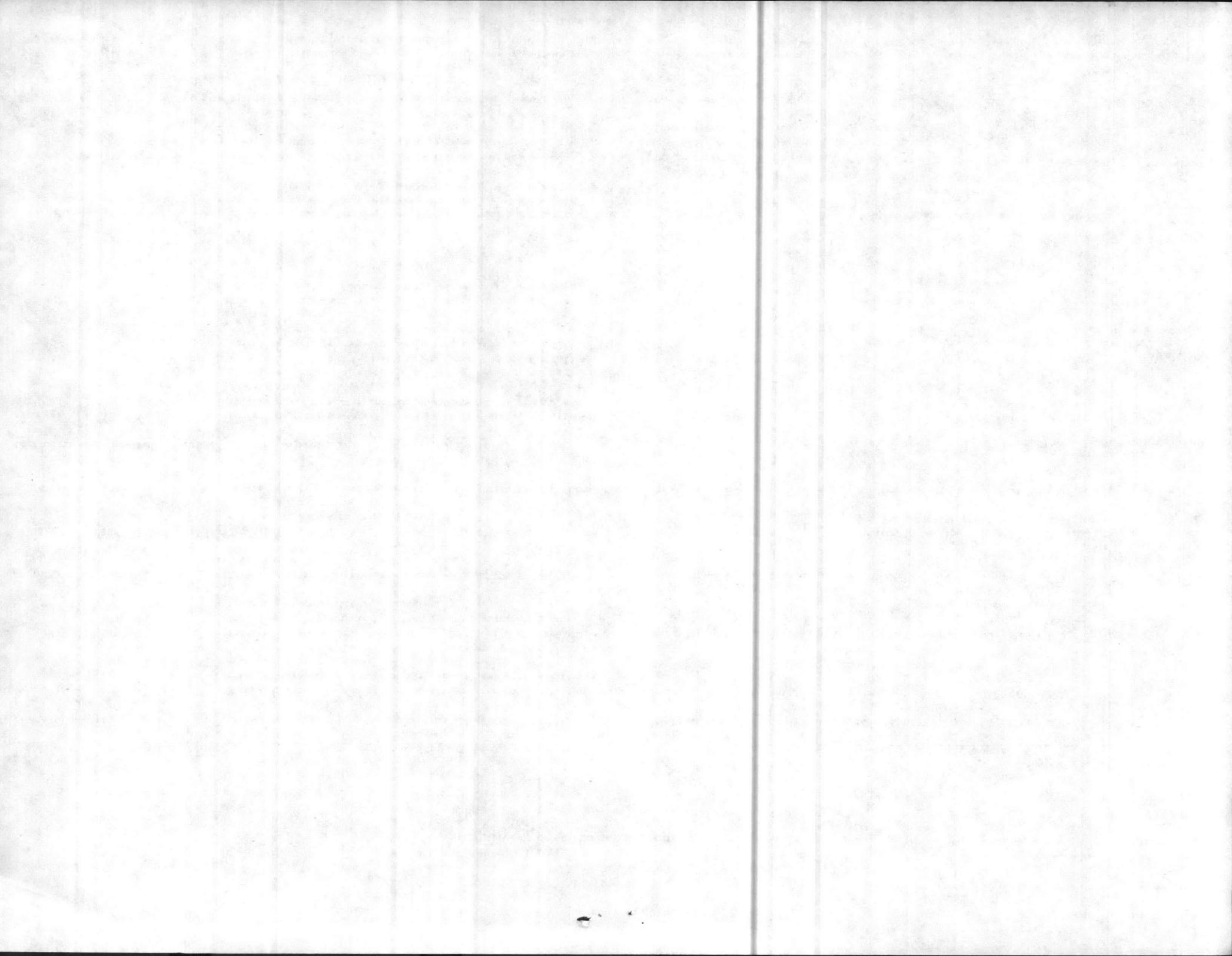
E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
Section 5: Liability				
5 (a)	107 (c)(1)(C)	Determine the liability for each release of a hazardous substance or incident involving the release of a hazardous substance into navigable waters from any motor vehicle, aircraft, pipeline, or rolling stock.	Secretary of Transportation	
5 (b)	107 (c)(3)	Determine punitive damages and commence civil actions against the responsible party(ies) for the release or threatened release of hazardous substances involving the costal zone, waters of the Great Lakes, ports, and harbors.	The Coast Guard	
5 (c)	107 (f)(2)(B)	Determine punitive damages and commence civil action against the responsible party(ies) for the release or threatened release of hazardous or toxic substances.	The Administrator	Subject to Section 5 (b) of this E.O.
5 (d)	107 (f)(1)	Determine liability for damage to natural resources.	Federal Trustees for each natural resource.	
5 (e)	107 (f)(2)(B)	Obtain a list of each state's natural resources trustees.	The Administrator	The Governor of each state will submit this list to the Administrator.
Section 6: Litigation				
6 (a)	Not Applicable (NA)	See comments.	The Attorney General	The conduct and control of all litigations and judicial proceedings are the responsibility of the Attorney General.
6 (b)	NA	See comments.		The authority under CERCLA/SARA requiring the Attorney General to commence litigation is retained by the President.
6 (c)	113 (g)	Receive notification of a natural resource trustee's intent to file suit for remedial actions.	Heads of Executive Departments and Agencies	The Administrator will promulgate procedural regulations for providing the notifications.
6 (d)	310 (d) and (e)	See comments.	The Administrator	This section of the Act could not be identified.
Section 7: Financial Responsibility				
7 (a)	107 (k)(4)(B)	Determine the feasibility of establishing or qualifying an optional system of private insurance for postclosure financial responsibility for hazardous waste disposal facilities.	Secretary of the Treasury	The Administrator will provide the Secretary with technical information and assistance.
7 (b)(1)	108 (a)(1)	Regulate owners and operators of each vessel over 300 gross tons that use any port or place in the U.S., or navigable waters, or any offshore facility. Each shall establish and maintain evidence of financial responsibility of \$300 per gross ton or other amount specified.	The Coast Guard	



SUMMARY OF EXECUTIVE ORDER NO. 12580
DELEGATION OF CERCLA/SARA REQUIREMENTS

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E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
7 (b) (2)	109	Assess penalties for violating Section 108 (a) (1) of CERCLA.	The Coast Guard	Subject to Section 4 (a) of this E.O.
7 (c) (1)	108 (b)	Regulate transportation related facilities, including any pipeline, motor vehicle, roll, stock, or aircraft for evidence of financial responsibility.	Secretary of Transportation	
7 (c) (2)	109	Investigate violations of Section 108 (a) (3) of CERCLA regarding denied entry or detention for failure to produce evidence of financial responsibility.	Secretary of Transportation	Subject to Section 4 (a) of this E.O.
7 (c) (3)	109	Assess penalties for violations under Section 108 (b) of CERCLA regarding transportation related facilities.	Secretary of Transportation	
7 (d) (1)	108 (a) (4) and (b)	Regulate facilities that handle or dispose of hazardous waste for evidence of financial responsibility.	The Administrator	Subject to Section 7 (c) (1) of this E.O. Section 108(a) (4) could not be identified.
7 (d) (2)	109	Assess penalties for violations of Section 108 (a) (4) and (b) of the Act.	The Administrator	Subject to Section 4 (a) and 7 (c) (3) of this E.O.
Section 8: Employee Protection and Notice to Injured				
8 (a)	110 (e)	Conduct continuing evaluations of potential loss of employment resulting from the administration or enforcement of CERCLA/SARA provisions.	The Administrator	
8 (b)	111 (g)	Promulgate rules and regulations for owners and operators of any vessel or facility under the designated official's jurisdiction from which a hazardous substance has been released.	Secretaries of Defense and Energy	
8 (c)	111 (g)	Promulgate rules and regulations for owners and operators of any vessel or facility from which a hazardous substance has been released.	The Administrator	Subject to Section 8 (b).
Section 9: Management of Hazardous Substance Superfund Claims				
9 (a)	111 (a)	Disburse payments for response actions, claims, and other cost from the Hazardous Substance Superfund. Payments will not exceed \$8.5 billion for the 5-year period beginning October 17, 1986.	The Administrator	Subject to applicable provision of this E.O.
9 (d)	111 (f)	Select federal and state officials who may obligate money in the Hazardous Substance Superfund for response costs.	The Administrator and Department and Agency Heads to whom funds are provided	
9 (e)	112	Provide oversight for payments of claims filed pursuant to Section 111, uses of the fund, of CERCLA.	The Administrator	
9 (f)	111 (o)	Develop notification procedures for limitations on certain payments of claims for necessary response costs.	The Administrator	



SUMMARY OF EXECUTIVE ORDER NO. 12580
DELEGATION OF CERCLA/SARA REQUIREMENTS

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E.O. 12580 Section	CERCLA/SARA Sections	Action or Item Delegated	Delegated to Persons or Agency(s)	Comments
9 (g)	117 (e)	Develop a proposed plan for public participation.	The Administrator	The Attorney General will be consulted.
9 (h)	123	Develop and administer reimbursement procedures to any general purpose unit of local government for a political subdivision which is affected by a release or threatened release at a facility.	The Administrator	
Section 10: Federal Facilities				
10 (a)	120 (e) (4) (A)	See comments.		When necessary, prior to selection of a remedial action by the Administrator, Executive agencies will have the opportunity to present their views after following procedures of Sections 1 through 6 of E.O. No. 12088, with OMB ^e as facilitator, or any other mutually acceptable process.
Section 11: General Provisions				
11 (a)	101 (37)	See comments.	The Administrator	This section could not be identified in SARA.
11 (b)(1)	105 (f)	Report on minority participation in contracts.	The Administrator	
11 (b)(2)	105 (f)	Submit requested information on minority contracting to the Administrator.	Heads of Executive Departments and Agencies	Subject to Section 11 (b)(1) of this E.O.
11 (c)	126 (c)	Enforce worker protection standards, promulgated by the Secretary of Labor under OSHA, for the health and safety protection of employees engaged in hazardous waste work.	The Administrator	The Secretary of the Interior will be consulted.
11 (d)	301 (c)	Conduct a study for the assessment of damages for injury to, destruction of, or loss of natural resources resulting from a release of oil or a hazardous substance and issue appropriate regulations.	Secretary of the Interior	Regulations will be reviewed and revised every 2 years.
11 (e)	NA	See comments.		Each agency has the authority to issue regulations to carry out the functions delegated by this E.O.

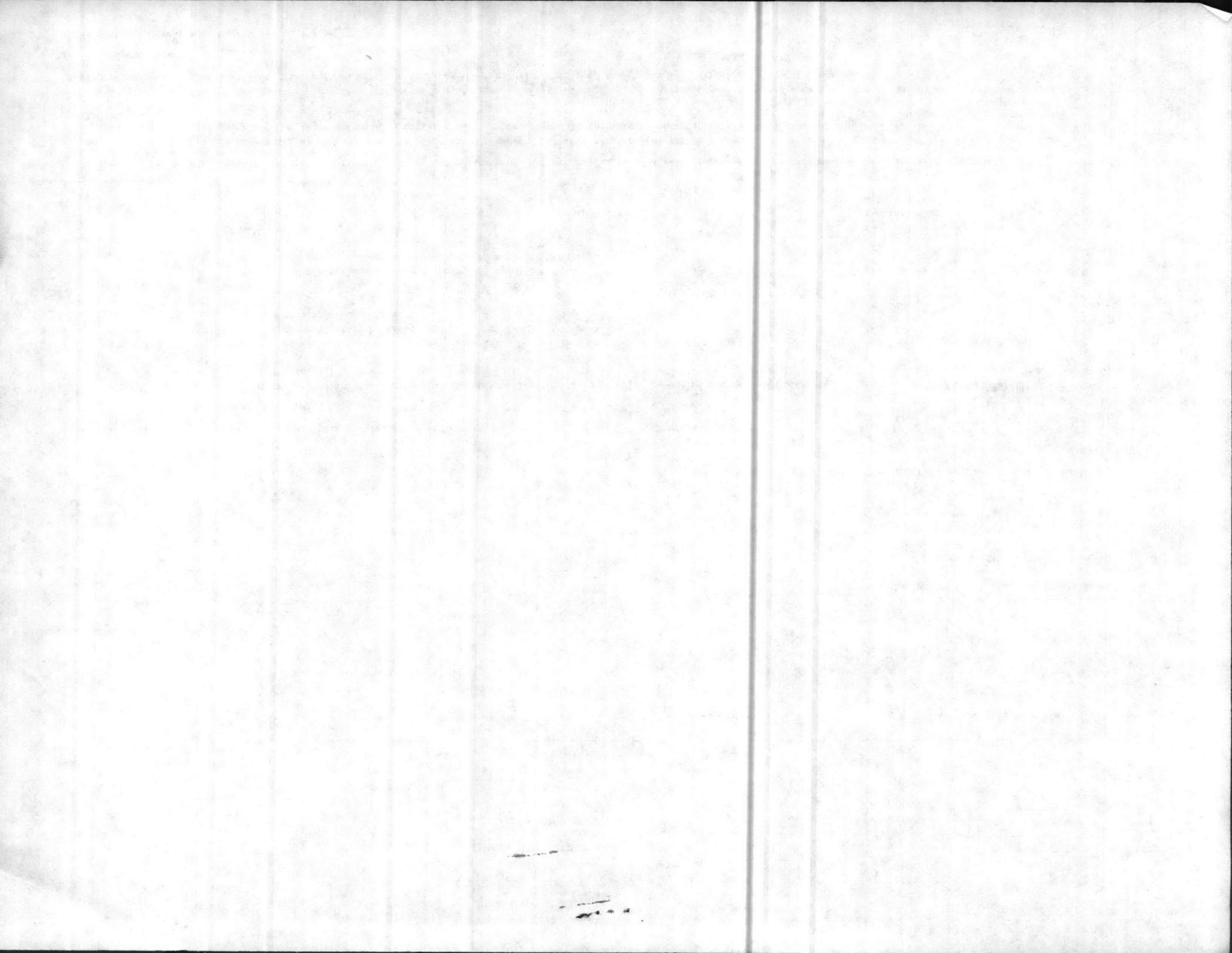
^a NPL - A list of sites within the United States and its territories and possessions that are slated for EPA enforcement action or cleanup. The NPL is revised annually.

^b HRS - The model EPA uses to determine which sites should be listed on the NPL under CERCLA. A mathematical rating scheme that combines the potential of a release to cause hazardous situations, the severity/magnitude of these potential impacts, and the number of people that may be affected. Sites receiving HRS scores above the EPA cut-off point appear on the NPL.

^c NRT - The NCP will provide for a National Response Team (NRT) composed of representatives of appropriate Federal departments and agencies for national planning and coordination of preparedness and response actions, and regional response teams as the regional counterpart to perform similar duties at the regional level.

^d E.O. - Executive Order.

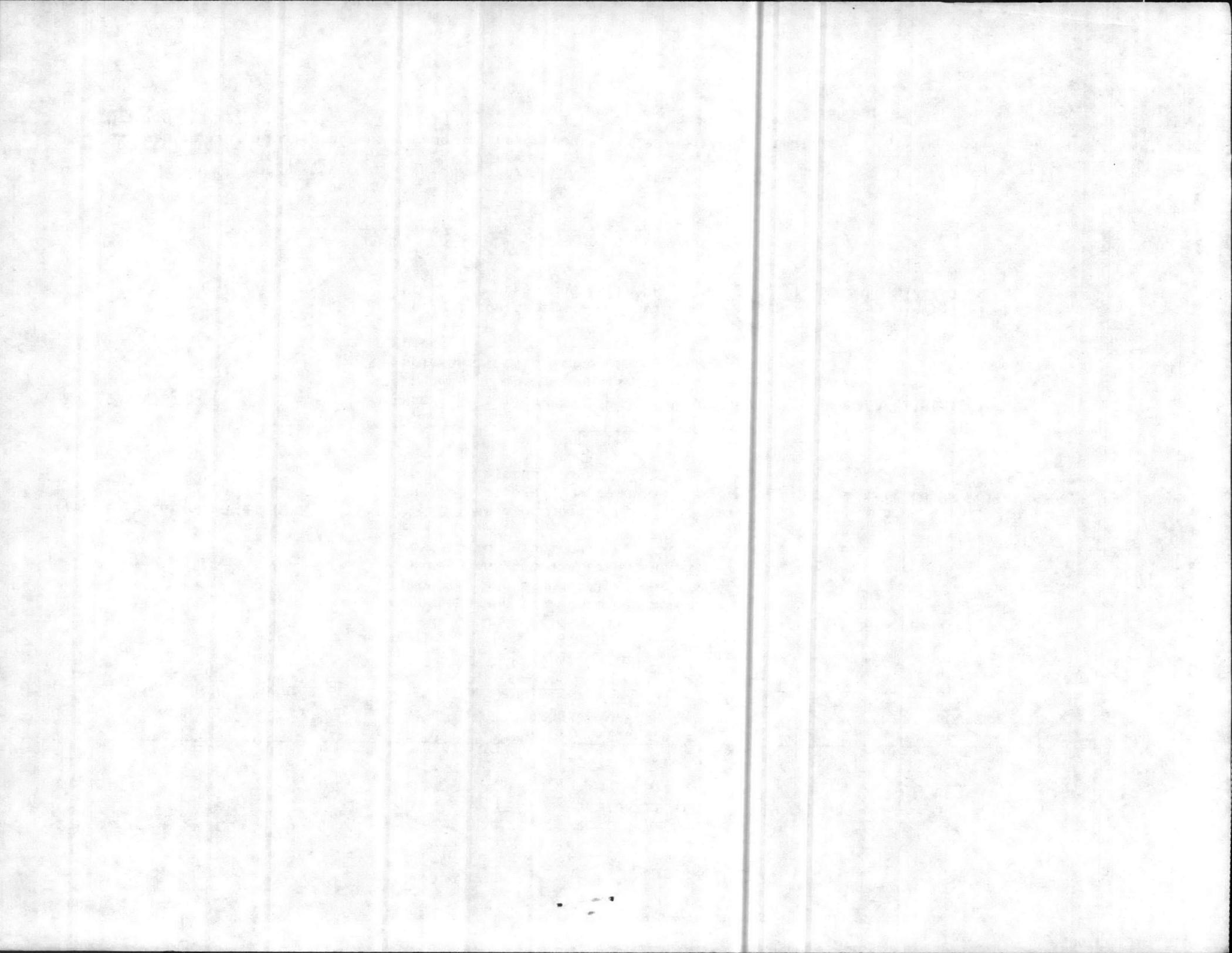
^e OMB - Office of Management and Budget.



COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
<u>Removal Actions</u>		
Agency Spokesperson	Lead agency must designate a spokesperson to inform the public promptly and accurately about the release and actions taken, and to respond to questions.	. NCP §300.67(b) . Superfund CR Policy, 1983
Community Relations Plan (CRP)	A CRP, based on community interviews, must be prepared for removals longer than 45 calendar days.	. NCP §300.67(a) & (b) . Superfund CR Policy, 1983
<u>Non-NPL Sites</u>		
Remedial Activities	Remedial actions taken under §§104 and 106 must comply with §117 of SARA unless stricter State standards are in place.	. SARA §120(a)(4)
	Federal agencies must consult with States to determine their CR requirements.	. SARA §120(a)(4) . SARA §121(f)

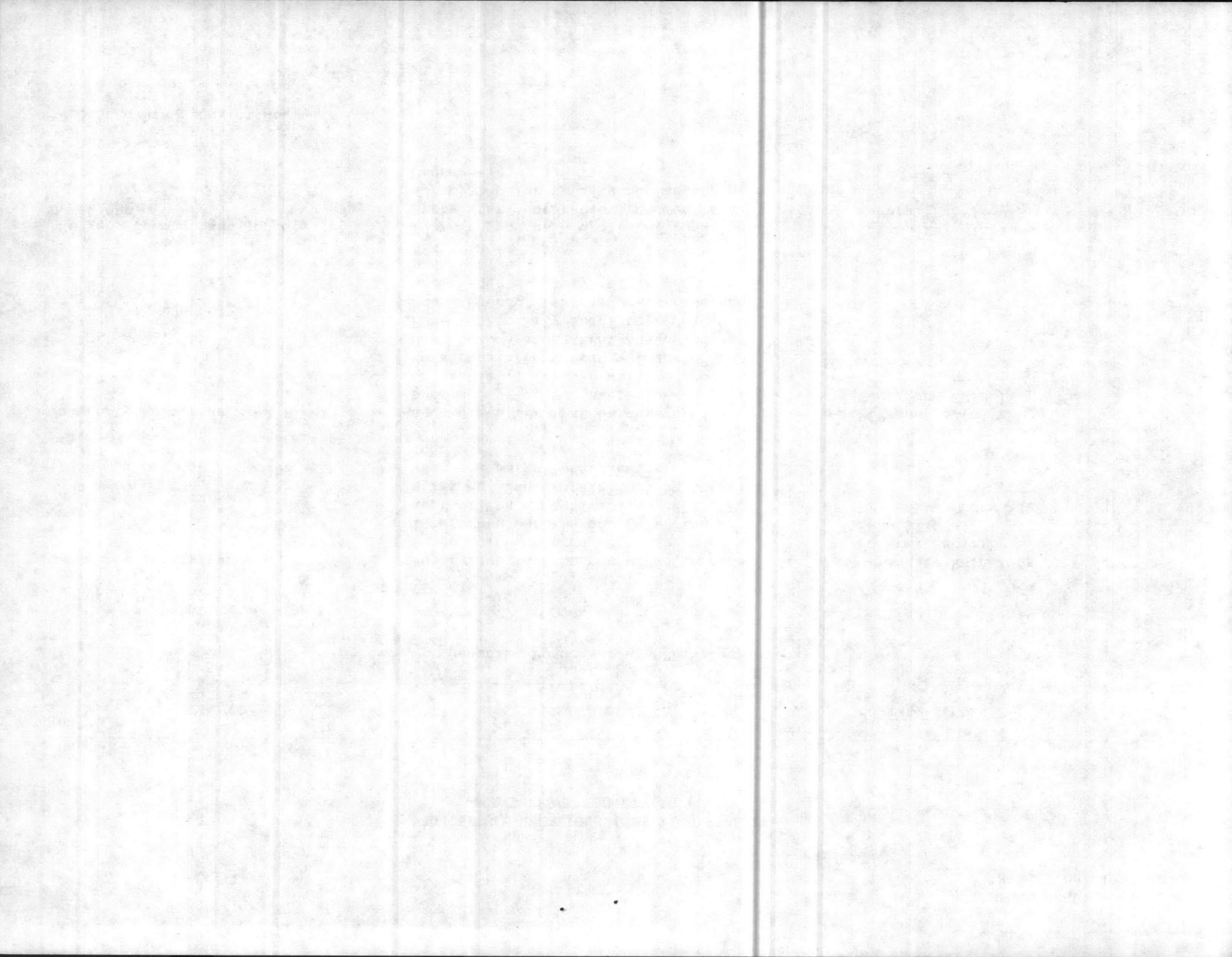
NOTE: Changes in this final draft were made at the October 27, 1987 National Community Relations Coordinators Meeting.



COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
<u>Remedial Responses at NPL Sites</u>		
<u>Remedial Investigation (RI)</u>		
Community Interviews	Interviews must be conducted in order to solicit concerns of affected or interested parties and determine appropriate CR activities. EPA, FF staff and State staff must be notified when community interviews are to be scheduled.	<ul style="list-style-type: none"> . Community Relations at Federal Facility Sites . SARA §120(a)(2) . Executive Order 12580
Community Relations Plan (CRP)	A complete CRP <u>must</u> be developed and approved <u>prior</u> to initiation of field activities. The CRP will be subject to a consistency test. Therefore, discussions among EPA, State and Federal Facility staff to resolve "consistency" test issues are strongly encouraged as early in the process as possible.	<ul style="list-style-type: none"> . NCP §300.67(c) . Superfund CR Policy, 1983
*Review, Comment and Approval of Draft CRP	FF must provide a draft CRP to EPA and State staff for review, comment and approval prior to issuance as a public document.	<ul style="list-style-type: none"> . Community Relations at Federal Facility Sites

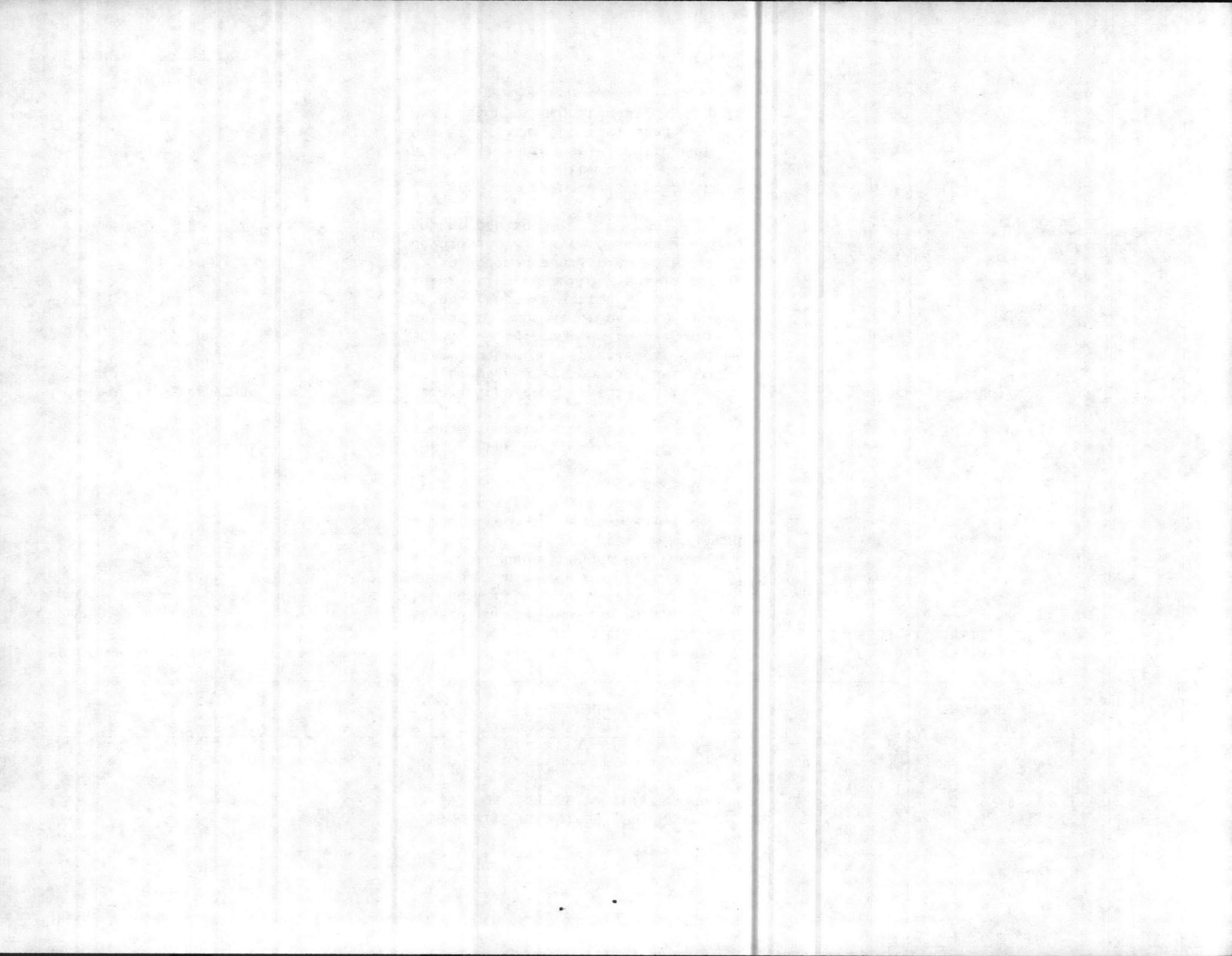
*Proposed new requirement.



COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

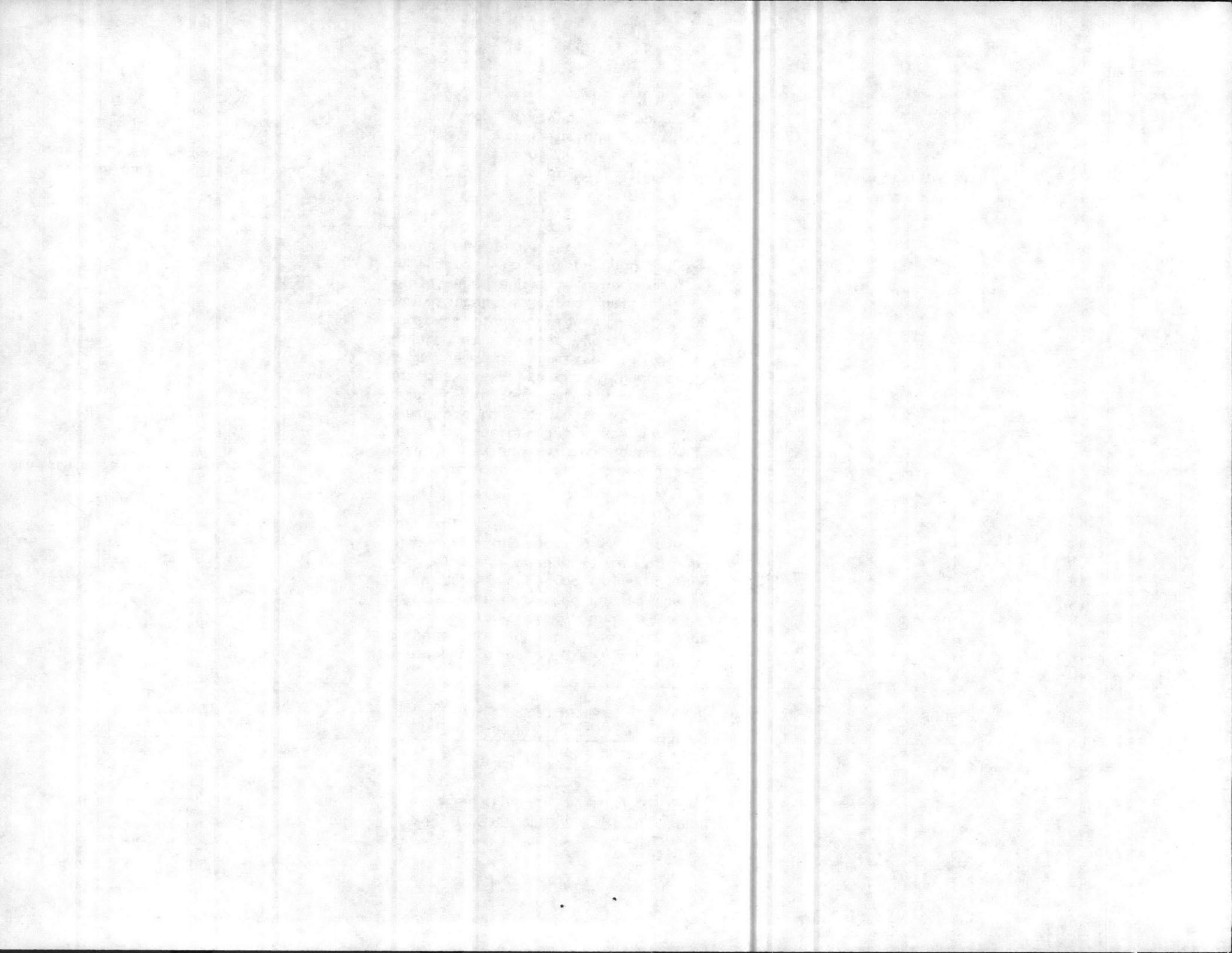
ACTIVITY	REQUIREMENT	SOURCE
*Draft Press Releases	EPA and State staff must be advised of any press release to the public media regarding work covered by an IAG and the content of the release at least 48 hours in advance of issuance. If any subsequent changes are made prior to release, EPA and State staff must be notified of the changes. Press releases must be provided to EPA and States prior to issuance except in an emergency. In emergency situations, the FF must provide the information as soon as possible to EPA.	Community Relations at Federal Facility Sites
Information Repository	At all Superfund remedial sites, and at removals where on-site activities last longer than 45 calendar days, at least one information repository must be established at or near the location of the response action. The information repository shall contain, as it becomes available, each item developed, received or made available to the public.	Superfund CR Policy, 1983
	The proposed plan (or a brief analysis or fact sheet on the plan), including alternative proposals considered in the RI/FS, the ROD including any discussion of significant changes	SARA §117(d)

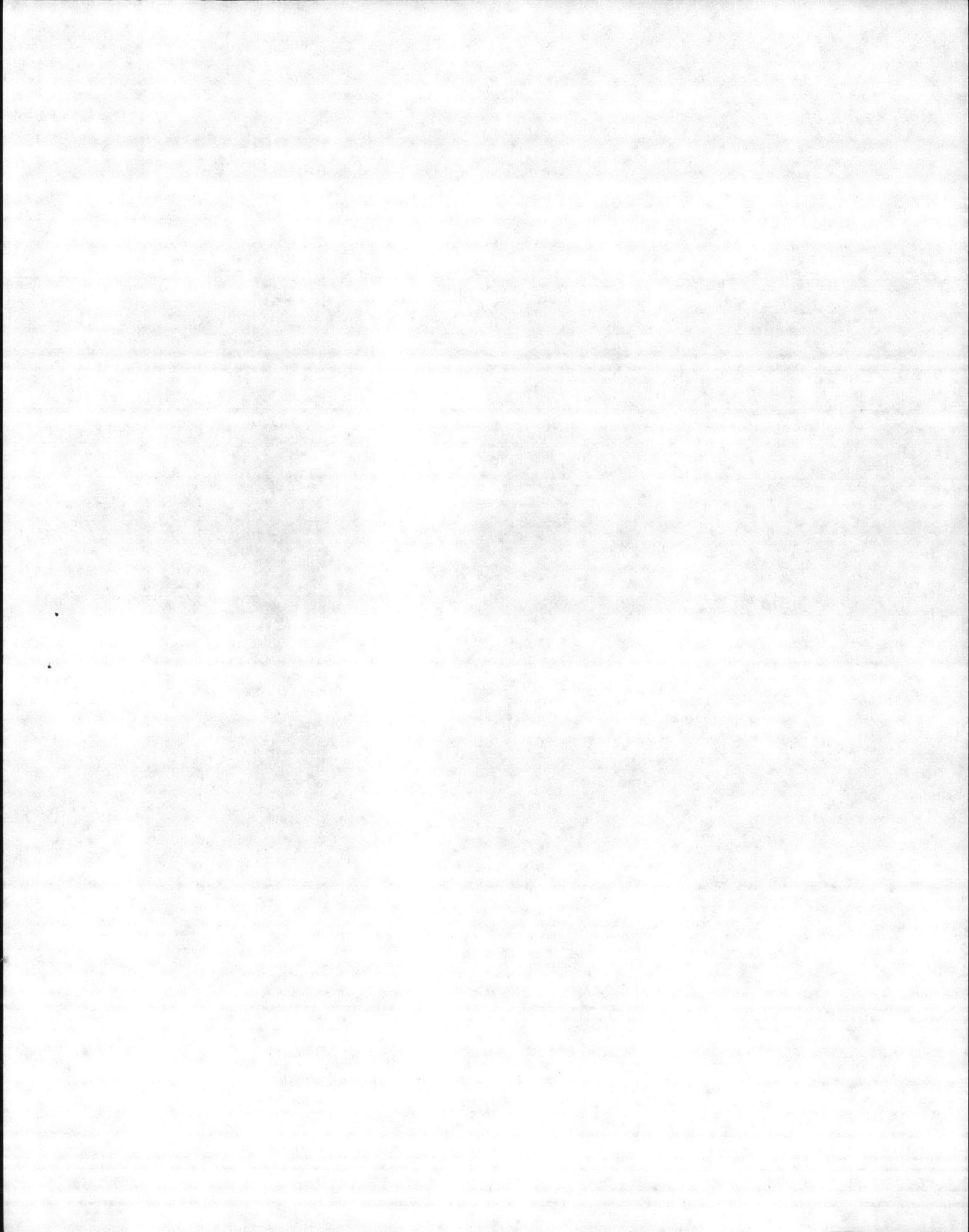
*Proposed new requirement.

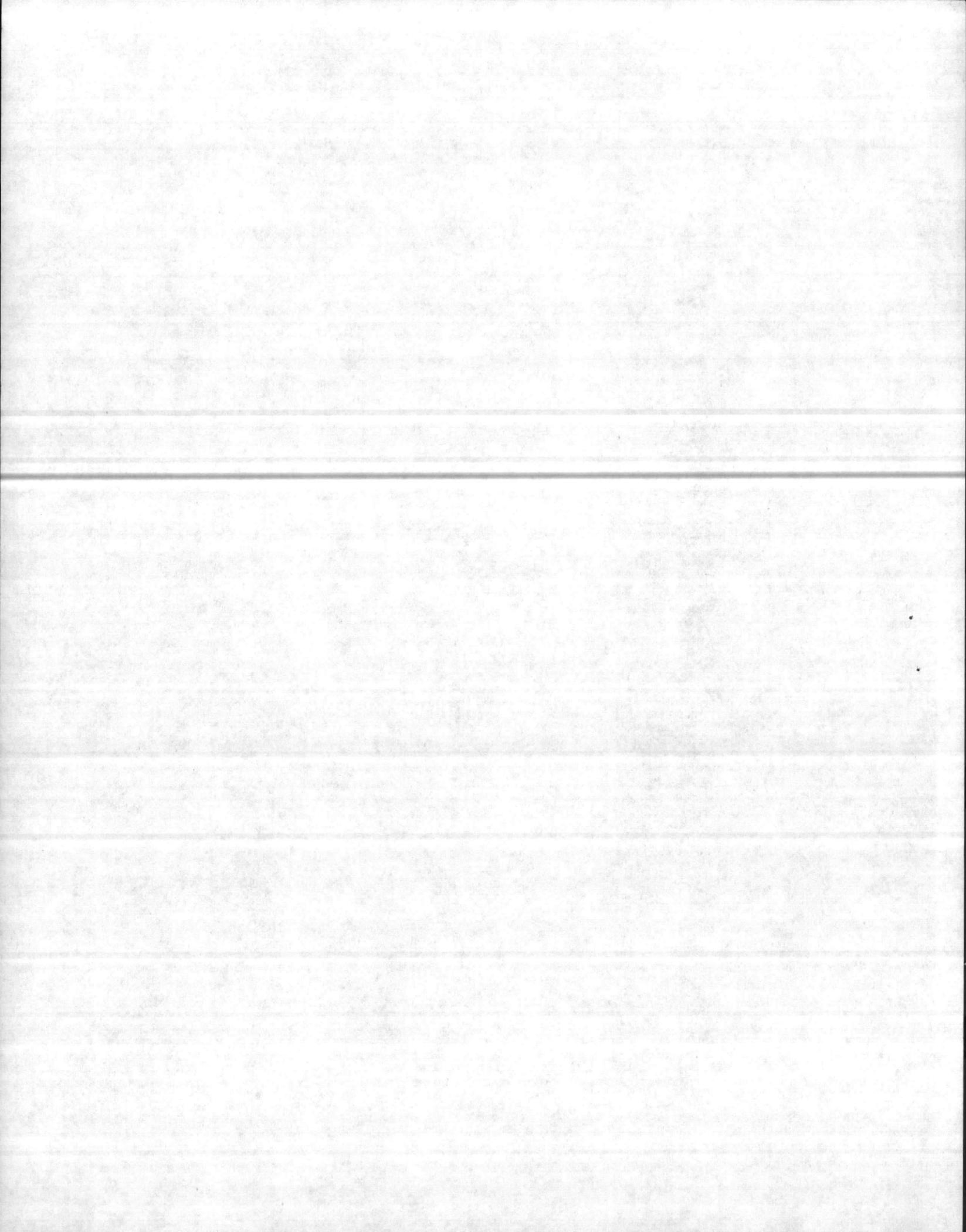


COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
Administrative Record	<p>(from the proposed plan) and a response to each of the significant comments, criticisms, and new relevant information submitted during the public comment period required under §117(a) shall be available for public inspection and copying at or near the facility at issue.</p> <p>An Administrative Record shall be established and maintained for all response actions and shall be available to the public at or near the facility at issue. When removal actions last less than 120 calendar days the Administrative Record can be located at the lead Agency regional/local office. The Administrative Record shall be established and maintained in accordance with current and future EPA policy and guidance.</p>	SARA §113(k)
<u>Feasibility Study (FS)</u>		
Notification of Public Comment Period and Proposed Plan	<p>Publish a notice of availability and brief analysis of the Proposed Plan. The notice shall include sufficient information as may be necessary to</p>	SARA §117(a) and (d)

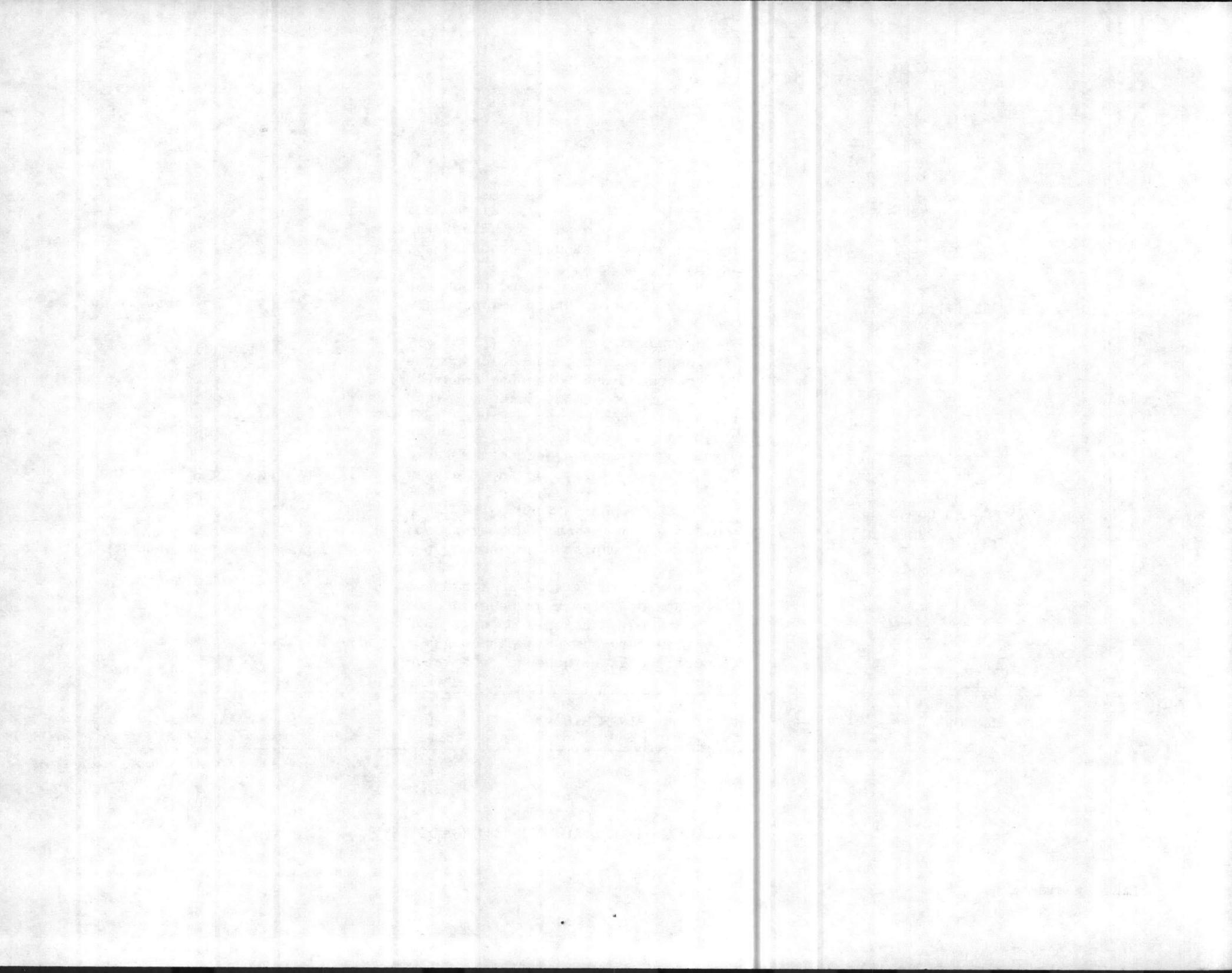






COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
	provide a reasonable explanation of the Proposed Plan and alternative proposals considered. The notice must be published in a major local newspaper of general circulation.	
Public Comment Period	The FS must be provided to the public for review and comment for a period of not less than 21 calendar days.	. SARA §117(a) . NCP §300.67(d) . Superfund CR Policy, 1983
Opportunity for Public Meeting	Before adoption of any remedial action plan, a reasonable opportunity must be provided for submission of written and oral comments and an opportunity for a public meeting at or near the facility at issue regarding the proposed plan and any proposed findings under §121(d)(4) (cleanup standards).	. SARA §117(a)(2) . NCP 300.67(d)
Meeting Transcript	A transcript of any planned and announced public meeting(s) (i.e. meetings required by SARA §117(a)) on the proposed plan must be kept. This transcript must be made available to the public.	. SARA §117(a)(2)

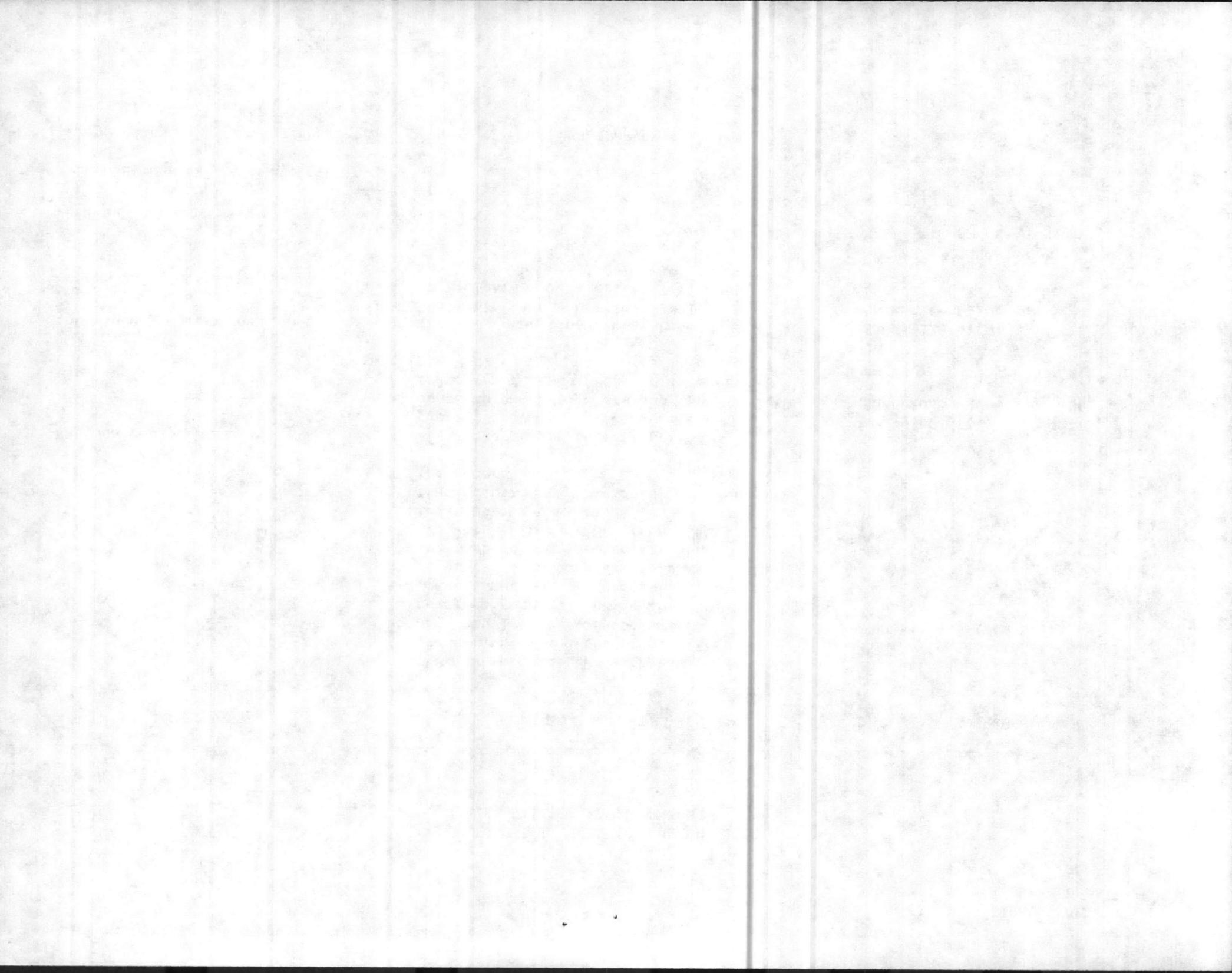


COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
	*FF must provide EPA with the transcript(s) and the original (or good copy) of all of the written comments received during the public comment period. This information must be provided as soon as it is available and must be provided to the EPA Project Officer or Superfund CRC. Administrative Record guidance governs the inclusion of this information in the Record.	. Executive Order 12580 . Community Relations at Federal Facility Sites
Responsiveness Summary	After the public comment period closes, a summary of community concerns and EPA, State and FF responses must be prepared as part of the ROD. ¹	. SARA §117(b) . NCP §300.67(e) . Superfund CR Policy, 1983
Interagency Agreements (IAGs)	The IAG, when final, must be made available to the public. Public participation is a critical element that must be detailed in the IAG.	. SARA §120(e)(2) . Community Relations at Federal Facility Sites

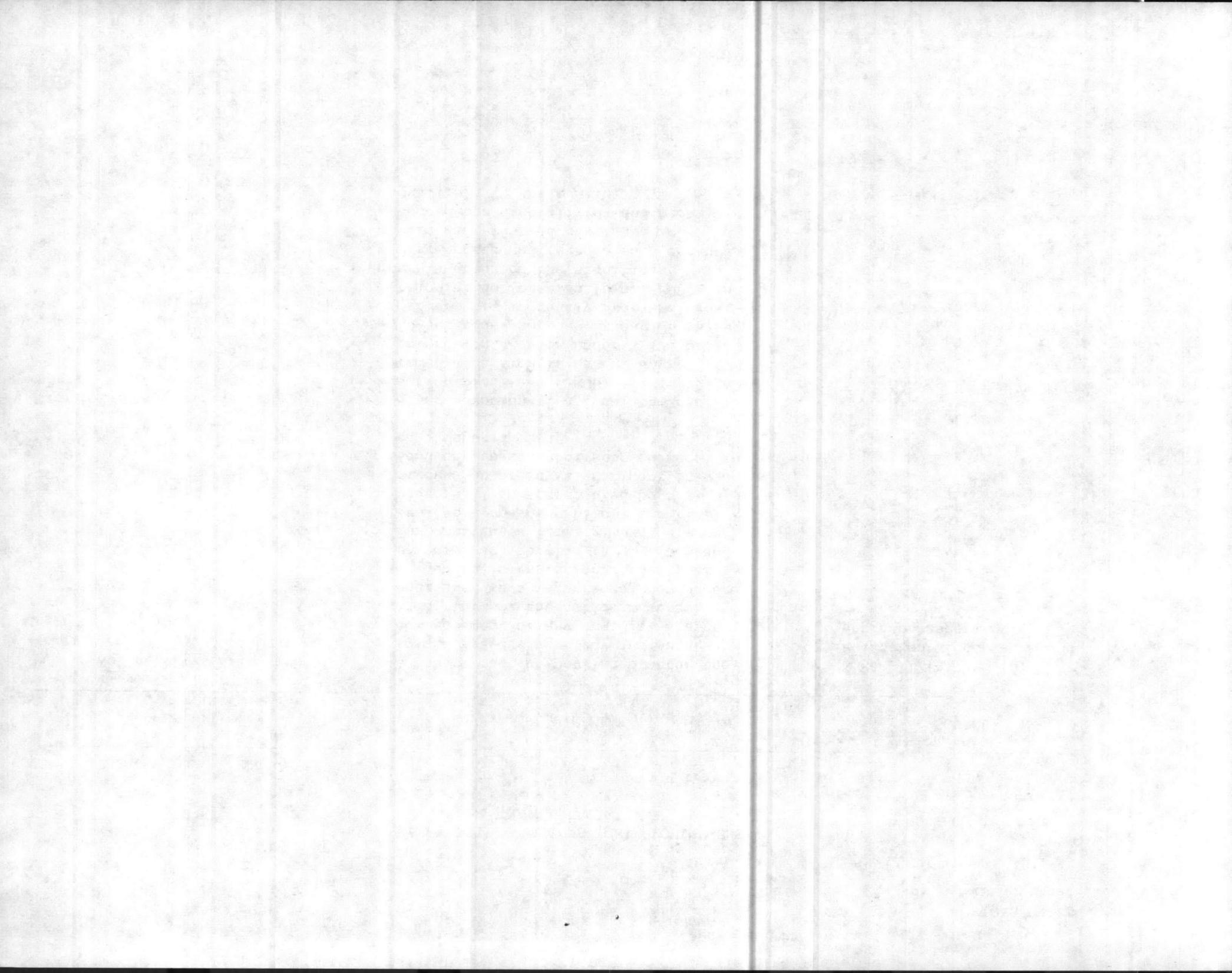
*Proposed new requirement.

¹Proposed guidance allows FF staff to prepare a draft Responsiveness Summary.



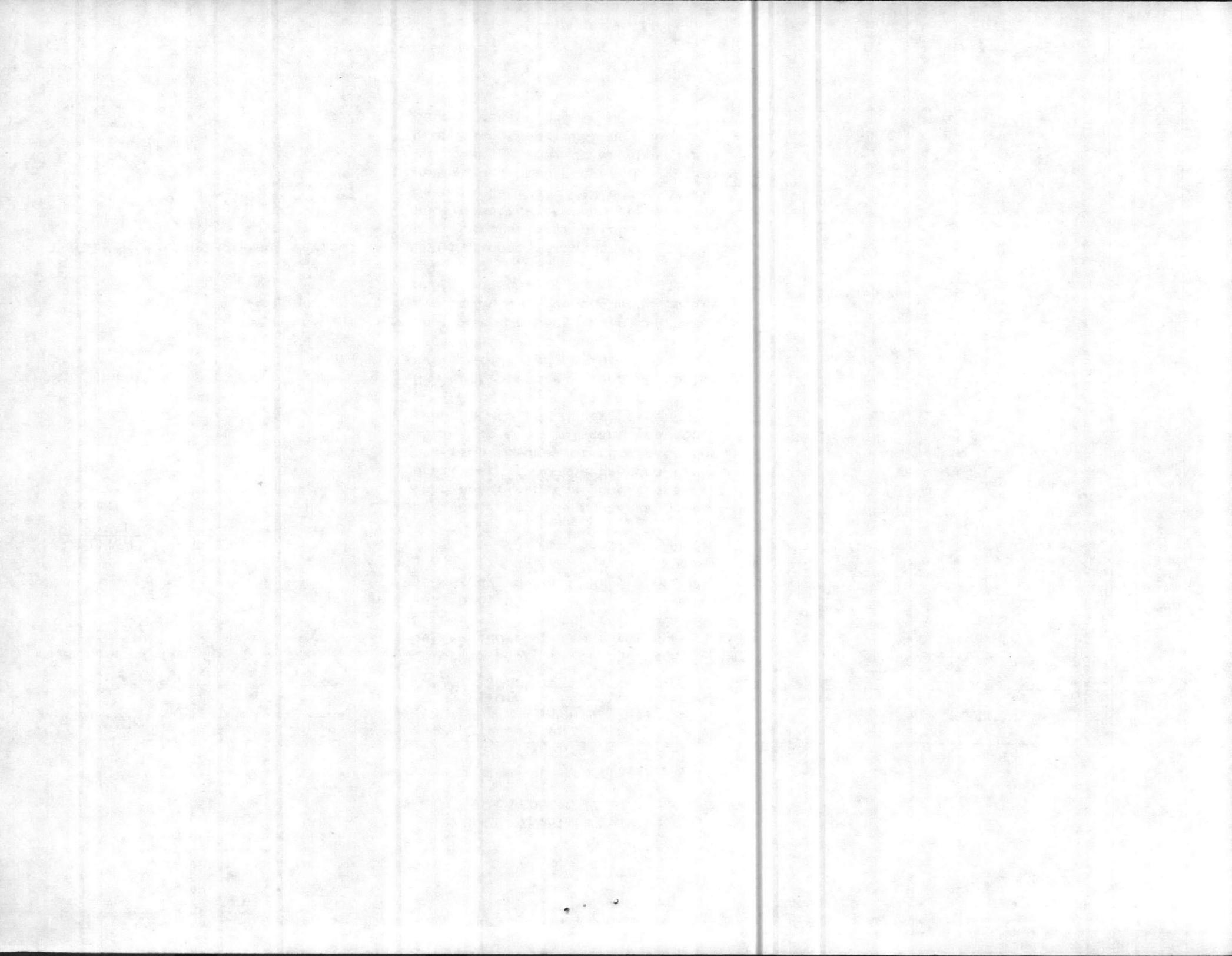
COMMUNITY RELATIONS (CR) REQUIREMENTS
FOR FEDERAL FACILITIES (FF)

ACTIVITY	REQUIREMENT	SOURCE
Public Notice After Selection of Final Plan	A notice must be published after the Agency selects a remedy and before commencement of any remedial action. At a minimum, the notice must be published in a major local newspaper of general circulation. The final remedial action plan (e.g., ROD) and Responsiveness Summary must be made available to the public. The final plan shall be accompanied by a discussion of any significant changes (and the reasons for such changes) in the Proposed Plan.	. SARA §117(b) and (d) . Policy on Floodplains and Wetland Assessment
Explanation of Differences	After adoption of a final remedial action plan (e.g., ROD), if any remedial action is taken, any enforcement action under §§106 or 122 is entered into, and if any of these differs significantly from the final remedial action plan (e.g., ROD), an explanation of the significant differences and reasons such changes were made must be published in accordance with §117(d) and made available to the public.	. SARA §117(c) . SARA §117(d)



COMMUNITY RELATIONS (CR) REQUIREMENTS
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ACTIVITY	REQUIREMENT	SOURCE
Revision of the CRP	Prior to remedial design, the CRP must be revised to account for community concerns during the remedial design and construction phase, if not already addressed in the CRP.	. Superfund CR Policy, 1983
<u>PERMITTING</u>		
Statement of Basis	EPA shall provide a statement of basis that describes the conditions of the draft permit or the reasons for a decision to deny or terminate the permit to the applicant and, on request, to any other person.	. 40 CFR 124.7
Fact Sheet	EPA must prepare a fact sheet for every draft permit for a major hazardous waste management facility that will be sent to the permit applicant and, on request, to any other person.	. 40 CFR 124.8
Public Notice and Comment Period	The Regional Administrator or State Director, as appropriate, must give public notice that an application has been tentatively denied; a draft permit has been prepared; a hearing has been scheduled; an appeal has been granted; or an NPDES new source determination has been made. There	. 40 CFR 124.10



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ACTIVITY	REQUIREMENT	SOURCE
Public Hearings	must be a public comment period on these actions. The Regional Administrator or State Director, as appropriate, must hold a public meeting when there is a significant degree of public interest in a draft permit(s).	. 40 CFR Part 124.12
Issuance and Effective Date of Permit	The Regional Administrator must issue a final permit decision after the close of the public comment period on the draft permit. The Regional Administrator must notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision on a RCRA, UIC, or PSD permit or for contesting a decision on an NPDES permit or a decision to terminate a RCRA permit.	. 40 CFR Part 124.15
Response to Comments	The State Director must issue a response to comments at the time any final permit decision is issued. States are required to issue a response to comments when a final permit is issued.	. 40 CFR Part 124.17



COMMUNITY RELATIONS (CR) REQUIREMENTS
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ACTIVITY	REQUIREMENT	SOURCE
Administrative Record for Final Permit When EPA is the Permitting Authority	The Regional Administrator must base final permit decisions on the Administrative Record, which consists of: the administrative record for the draft permit; all comments received during the public comment period; the tape or transcript of any hearing held; any written materials submitted during such a hearing; the response to comments; other documents contained in the support file for the permit; and the final permit.	40 CFR Part 124.18
<u>REMEDIAL DESIGN</u>		
Public Notice and Fact Sheet After Design	A public notice and updated fact sheet must be prepared after the final engineering design is complete.	CERCLA Compliance with Other Statutes Guidance

