Department of Energy
Carlsbad Area Office
P. O. Box 3090
Carlsbad, New Mexico 88221
November 12, 1998

Mr. Benito J. Garcia, Chief
Hazardous and Radioactive Materials Bureau
State of New Mexico Environment Department
2044 Galisteo Street
P. O. Box 26110
Santa Fe, New Mexico 87502

Subject: Transmittal of Review Comments/Flowchart on the New Mexico Environment Department Draft Risk-Based Decision Process

Dear Mr. Garcia:

In your letter dated October 14, 1998, you requested comments on the draft tiered risk-based approach to the Resource Conservation and Recovery Act (RCRA) corrective action process developed by the New Mexico Environment Department (NMED). The Carlsbad Area Office (CAO) has reviewed this document and with this letter transmits technical review comments on the draft process. In addition, the CAO has developed an alternative flowchart for your consideration. These two documents supply requested input on the draft risk-based decision process and submittal of comments and/or suggestions within thirty (30) days upon receipt of the correspondence.

We acknowledge the NMED's desire to create and streamline the Risk-Based Decision Process. We have several comments and questions related to the current draft document. Our specific comments are included in the attachments. A few general comments are presented below.

As an exercise, the CAO attempted to apply the draft risk-based decision process for Solid Waste Management Units (SWMUs) identified at the Waste Isolation Pilot Plant. It was extremely difficult to follow the process as currently presented. As an initial matter, we believe it is imperative that previously collected data be considered and that a comprehensive list of Applicable or Relevant and Appropriate Requirements (ARAR's) should be included in the process. By including such a comprehensive list, it will be possible to perform a screening level risk assessment earlier in the process. In addition, some steps in the process did not offer any quidance on making appropriate selections. The logic of the overall process needs to be reexamined and reorganized.

The process should also be revised to include previously collected data as part of an Interim Action or a Voluntary Release Assessment. The DOE suggests that NMED consider the U.S. Environmental Protection Agency (EPA) discussions included in the preamble to "Corrective Action for Releases from SWMUs at Hazardous Waste Management Facilities; Proposed Rule" in Federal Register Vol. 61, No. 85, May 1, 1996, and Federal Register Vol. 55, No. 145, July 27, 1990. NMED may also gain additional insight by obtaining information for current programs in place in other states.

The CAO is pleased to provide the enclosed comments in response to the NMED letter. We believe that the NMED should revise this draft document and provide another opportunity for review and comment. We look forward to reviewing and commenting on the next draft of this process.

If you have any questions regarding the attached document, please call me at (505) 234-7452 or Ms. Linda Frank-Supka at (505) 234-8816.

Sincerely,

Craig A. Snider
RCRA Compliance Manager

Attachment

CAO:ORCA:CAS 98-1748 (UFC 5486.00)

Review Comments on the NMED Draft Risk-Based Decision Process dated October 14, 1998

As part of developing this process, NMED should consider EPA discussions related to risk-based decision-making included in Corrective Action for Releases From Solid Waste Management Units at Hazardous Waste Management Facilities; Proposed Rule, Federal Register Vol. 61, No. 85, May 1, 1996.

Box 1. As part of the definition of a release, NMED needs to clarify that the releases in question are part of a Solid Waste Management Unit (SWMU). The process should also be able to address multiple SWMUs and not evaluate them one at a time. Not all releases constitute a SWMU. This process should not include one-time releases or spills that are immediately cleaned up. (Federal Register Vol. 55, No. 145, July 27, 1990, p30809).

Box 2. This process needs to consider whether or not an imminent hazard exists and whether some interim action must be taken immediately.

Box 3. If a release has occurred, the flowchart immediately requires a RCRA Facility Investigation (RFI). This jump to an RFI from Box 2, does not allow for consideration of previously collected data as part of an Interim Action or a Voluntary Release Assessment. As such, the process ignores EPA's statement "The Agency intends to remove regulatory disincentives to independent action by facility owner/operators and will encourage voluntary cleanups." Federal Register Vol. 55, No. 145, July 27, 1990, p30803. The process should directly include consideration of voluntary programs that have been initiated or completed. If data are available from a previous activity, it should be possible to proceed to the ARAR evaluation, rather than to the RFI process. The RFI box should be moved further down in the process, or describe that the remainder of the process constitutes the RFI. If some data already exist, it is probably appropriate to develop a preliminary conceptual site model at this juncture.

Box 4. This step in the process needs some additional development. Consideration of land-use specific screening-level values (i.e., residential, commercial, and industrial) needs to be spelled out. The logic related to this box needs to be reexamined. If there is no ARAR for a compound in one media, then there may not be any toxicological criteria available for performing a risk analysis. If there are no toxicological criteria then moving forward with an RFI makes no sense. If ARARs are available and appropriate for the land-use and media, then these data constitute a screening-level risk assessment. Therefore, it is not necessary to repeat a screening-level risk assessment in Box 14. If there are no ARARs for a compound, the compound should be eliminated from future consideration, and not be made a part of this process. In this instance, there should not be a connection between Box 4 and Box 6. Can NMED provide a comprehensive list of ARAR's for review and comment?

Box 5. This box suggests that if all chemical constituent concentrations are below the ARARs, there is no human health risk and no further action is necessary. Although this part of the process has some merit for RCRA facilities, we doubt that NMED wishes to bypass consideration of ecological impacts this early in the process. In the Federal Register (Vol. 61, No. 85, May 1, 1996) EPA clearly considers ecological risk assessment part of this process. It is not clear that NMED intends to include ecological evaluations in their ARARs. The risk evaluations later in the flowchart do consider potential ecological impacts.

Box 6. This box asks if a remedy is obvious. If there is an obvious remedy, what does this mean relative to compounds for which there were no ARARs? If there is no complete pathway then why remediate the SWMU, unless there is an imminent hazard?

Box 7. If a remedy is not obvious (Box 6), how could someone define whether or not the site can be remediated with current technology? The evaluation and selection of remedies should be part of a Corrective Measures Study (CMS), not the RFI. This box suggests that once you know the site can be remediated with current technology, move forward and perform the RFI. The logic associated with this process needs to be reexamined.

Box 8. Box 8 asks if site-related risk can be eliminated. Yet, the screening-level risk assessment is not performed until much later in the process. This box may be appropriate for imminently hazardous conditions or for interim actions.

Box 9. This box defines clean-up goals, based on ARARs, background, screening levels, or risk-based levels. The process does not offer any guidance on making these selections. For example, how is background defined? How can this box be completed if we do not have ARARs for some compounds? How can this step be performed before there is any data available to make a decision, and the decisions themselves have not been defined?

Box 10. If the remedy is obvious (Box 6), then obviously site risk can be reduced and this box is redundant or there would not be a remedy. If the choice of remedy is unclear then a CMS is probably needed.

Box 11. Why is it assumed that stabilization is the appropriate remedy? Should probably restate this box as "Perform Risk Reduction Measure(s)".

Box 12. In general, everything from Box 12 on should be part of the RFI process. As part of Box 3 we presumably would have developed a conceptual site model and defined that there were no ARARs for some compounds. If there is no need to refine the site conceptual model, where does the chart lead?

Box 13. The site conceptual model is revised here. Where was it developed?

Box 14. There should be a box between 14 and 19 asking if the results of the screening-level risk assessment were acceptable. However, the answer to this question was obtained in Box 5. If the results were acceptable, there is no reason to perform a site-specific risk assessment.

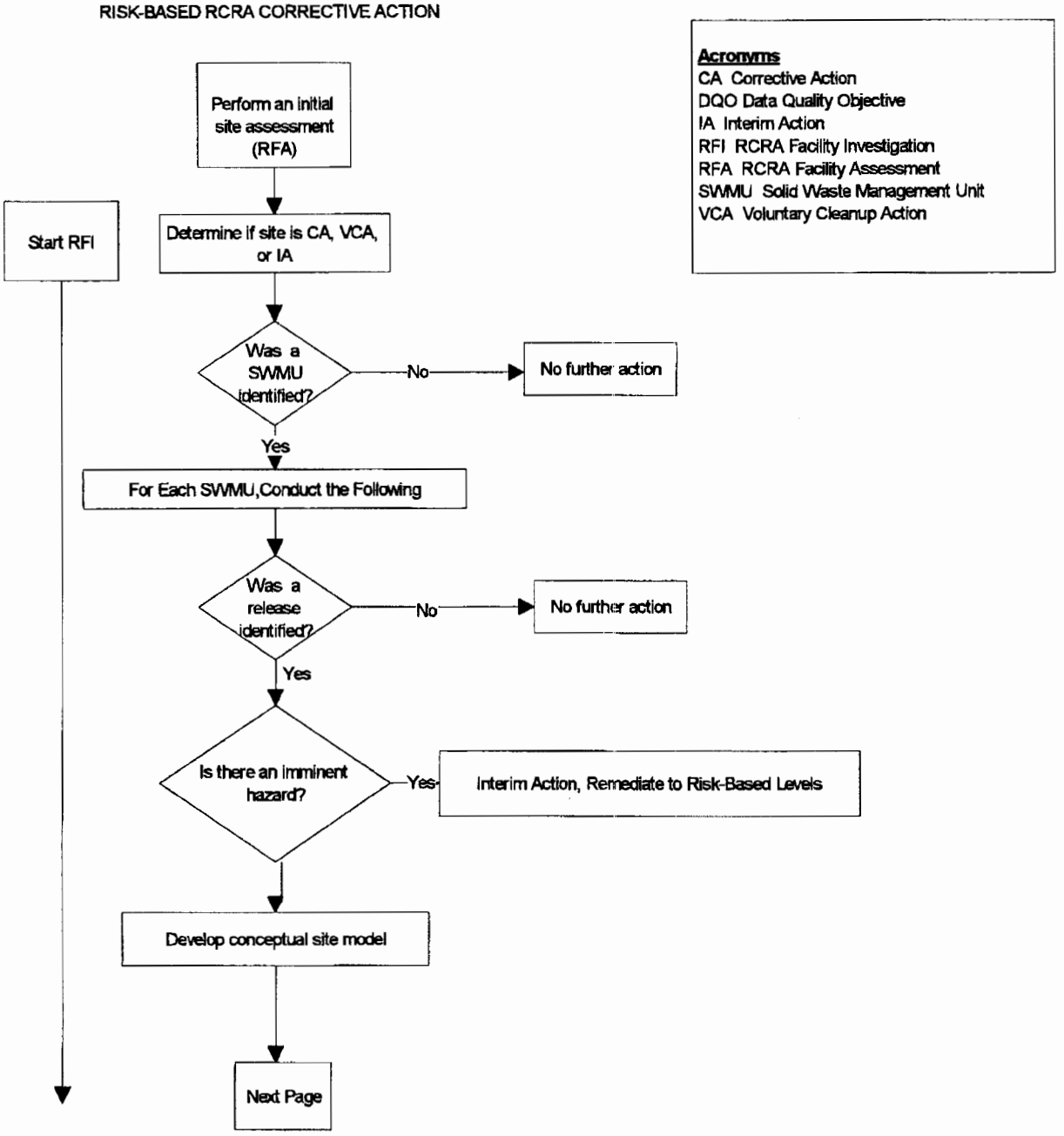
Box 15 and Box 16. Logically, these two boxes should be switched. One needs to evaluate the available data prior to conducting a risk assessment. It appears that Box 15 and Box 4 essentially do the same thing for compounds with ARARs. If there is no toxicological data and no ARARs how will the screening-level risk assessment be performed? Does NMED intend that applicants generate toxicological data for the risk evaluations? This approach would represent a departure from the normal process followed in other states and at other sites.

Box 17. If the risk is not acceptable, this box leads back to Box 6. This part of the flowchart has already been passed. The flowchart should probably point to a CMS in this instance.

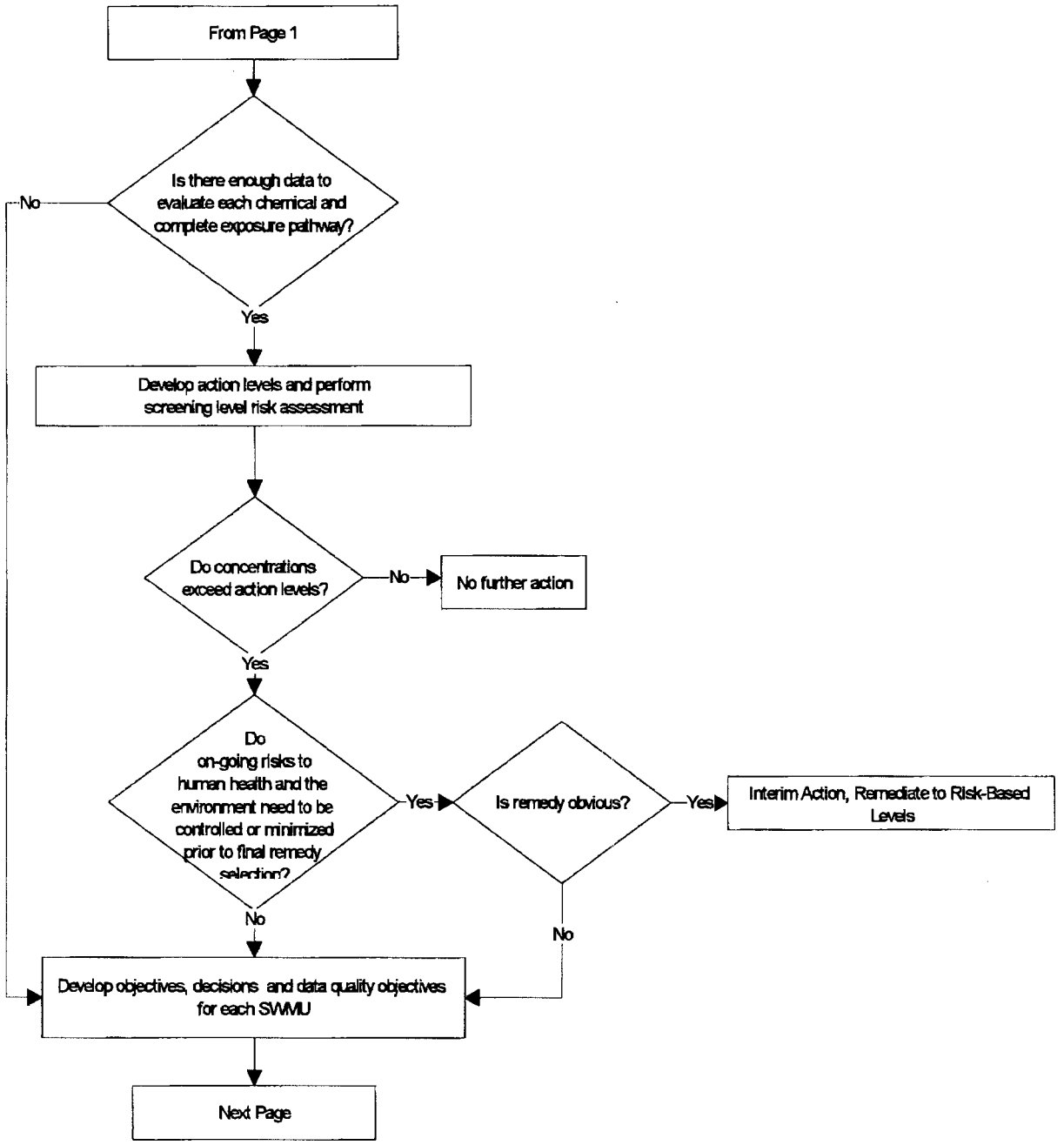
Box 22. What are the NFA criteria that NMED will use?

See attached flowchart for alternate decision-making process.

RISK-BASED RCRA CORRECTIVE ACTION



RISK-BASED RCRA CORRECTIVE ACTION (Continued)



RISK-BASED RCRA CORRECTIVE ACTION (Continued)