

Recommended Formats for Documents Submitted to the New Mexico Voluntary Remediation Program

1.0 Purpose

This guidance document provides formats and descriptions of the contents of documents to be submitted to the New Mexico Voluntary Remediation Program. Documents may be prepared using any appropriate format, however, failure to use the recommended formats may slow the document review cycle. At a minimum, all documents must contain the information described in this report.

2.0 References

Voluntary Remediation Act, NMSA 1978, Sections 74-4G-1 *et seq.* and revisions.

New Mexico Voluntary Remediation Regulations, 20.6.3 NMAC.

American Society for Testing and Materials (ASTM). Standard Practice for Environmental Site assessments: Phase I Environmental Site Assessment Process. Standard Practice E 1527.

3.0 Definitions

The words and phrases used in this policy have the same meaning as in the New Mexico Voluntary Remediation Act, 1978 NMSA, Sections 74-4G-1 *et seq.*, [the act] and the New Mexico Voluntary Remediation Regulations, 20.6.3 NMAC.

4.0 Applicability

This policy is only applicable to documents submitted to the New Mexico Voluntary Remediation Program. Other regulatory programs may have their own requirements for report formats and should be consulted if reports are being prepared for those programs.

5.0 Reports

The following reports are either required by the VRP Regulations or can reasonably be expected to be required as part of the Voluntary Remediation Agreement.

5.1 ASTM Phase I or Equivalent Reports

An ASTM Phase I environmental assessment of the site, or its equivalent, is required as part of the application.

5.1.1 Content

The content of the Phase I environmental assessment, or its equivalent, must conform to the requirements of the ASTM Standard Practice E 1527, as amended. At a minimum this includes;

- The legal description of the site, including a site map;
- The description of the physical, hydrological, and geological characteristics of the site, including the location of the nearest water supply wells and surface water bodies;
- Information of which the applicant is aware concerning the source(s), nature and extent of all contaminants or releases at the site and immediately contiguous to the site;
- Available information about historical land use;
- Available information about nearby environmental sites;
- Relevant information of which the applicant is aware concerning the potential for human or other exposure to contamination originating at the site, including, but not limited to

current land use, depth to ground water, location of utilities, and potential human health and ecological receptors.

5.1.2 Format

The recommended format for Phase I, or their equivalent, is the same as the format recommended in ASTM E 1527, Appendix X2.

5.2 Preliminary Voluntary Remediation Work Plan (VRWP)

In accordance with 20.6.3.400 NMAC, the participant must submit a Preliminary VRWP to NMED. The preliminary VRWP will be made available for public review according to 20.6.3.302 NMAC and must be adequate to inform the public about the site.

5.2.1 Content

The preliminary VRWP must summarize any work performed to date and include a proposed statement of work that describes any additional investigation or remediation activities necessary to achieve the performance standard in accordance with 20.6.3.110 NMAC. The Preliminary VRWP should provide sufficient information about site history, site activities, previous investigations and proposed work such that the public can review the document and understand the proposal.

All applicants must submit a Preliminary VRWP, even for sites where no work is proposed, or sites where an applicant is trying to establish innocent landowner status. If no additional site assessment or remediation work is proposed, the Preliminary VRWP should clearly state that no actual remediation is proposed and that the applicant will meet all requirements of the VRP, including submittal of a Final Voluntary Remediation Completion Report that demonstrates that the site meets the performance standard, as specified in 20.6.3.110 NMAC.

5.2.2 Format

The recommended format for the Preliminary VRWP is presented in Appendix A.1.

5.3 Final Voluntary Remediation Work Plan

In accordance with 20.6.3.400 NMAC the participant must submit to the department a proposed Final VRWP, that includes such details as a description of additional investigation and a proposed statement of work to achieve the performance standard determined in accordance with 20.6.3.110 NMAC.

5.3.1 Content

The final voluntary remediation work plan must provide a detailed description of site assessment and/or voluntary remediation activities to be undertaken to achieve the performance standard described in 20.6.3.110 NMAC. The work plan must be detailed and complete in its description of work to be performed. The Work Plan can be developed in a phased approach, and in most instances this is encouraged. Since each Work Plan is unique to a site, it is difficult to establish a list of required information, however, typical information that would be included in a work plan might include the following.

- A summary of site history and contaminant use, storage, disposal, and release history;
- A summary of site investigation work performed to date, including as much data in table or map format as can reasonably be included;
- A detailed description, including plans and sketches, of any additional investigation to be conducted to determine the type, nature and extent of contaminants at the site, including (as appropriate) but not limited to: location and type of sample, sample collection techniques, description of monitoring well

installation, description of well development, methods of purging and sampling, monitoring techniques, and sample analytical methods;

- Detailed descriptions of field procedures to be used, including (but not limited to) drilling, well installation, well development, well purging and sampling, sample handling, field data collection, etc.
- Quality assurance/quality control plan that describes in detail how samples collected will meet data requirements and how samples of acceptable quality will be collected;
- Contaminants and media (including but not limited to air, surface water, groundwater, soil, and facility structures) to be addressed by the remediation;
- A detailed description of each remediation method considered and what criteria were used to identify the selected remedy and how that remedy will accomplish site clean up, such that the performance standard is reached, as described in 20.6.3.110 NMAC;
- A monitoring plan to be implemented during the duration of remediation activities, if applicable;
- Confirmatory sampling and analytical methods to verify that remediation of the site has met the performance standard described in 20.6.3.110 NMAC;
- Post completion monitoring and maintenance to ensure that the closure conditions, including any engineering controls or affirmation of future non-residential land use upon which the final remedy is dependent, are maintained after completion, if applicable;
- An implementation schedule for all identified investigation and remediation tasks;
- A site-specific health and safety plan that complies with all applicable standards and guidelines;
- A plan describing the proposed management of investigation and remediation derived wastes, if applicable;
- Copies of, or a schedule for obtaining, all necessary and applicable permits and access agreements required to accomplish remediation of the site; and
- Any other pertinent information requested by the department that is reasonably necessary to meet the requirements of VRP regulations.

5.3.2 Format

The recommended format for the Voluntary Remediation Work Plan is presented in Appendix A.2. Some sections may not be applicable to all sites. These sections should be included with a discussion of why they are not applicable to the site. The format for the Site Health and Safety Plan is also presented in Appendix A.3.

5.3 Quality Assurance Project Plan

A quality assurance project plan (QAPP) is required with every work plan where sampling and analysis is proposed. The purpose of this requirement is to assure that all data collected meet basic quality criteria. If Phase II or other data have been collected prior to a site entering the VRP, VRP staff have the option of rejecting such data for use in meeting the VRP performance standard (20.6.3.110 NMAC), if the data appear to be inadequate based upon generally accepted industry standards for the collection of quality, reproducible data. For most sites, a separate QAPP is not necessary and the required information may be included as a subsection within the Final Voluntary Remediation Work Plan. If a site is large and/or data assessment is complex, then a separate QAPP may be recommended.

5.3.1 Content

Quality assurance (QA) is an integrated system of management activities that ensure that data collected and deliverables produced are of the quality expected. Quality Control (QC) is integral to the success of a QA Program and includes the technical activities that measure performance. The QAPP provides the framework for QA/QC activities and outlines activities necessary to promote the collection of data with the accuracy and precision necessary for the project.

To gain a better understanding of the information to be included in a QAPP, please review the following EPA guidance documents:

Quality Assurance Guidance for Conducting Brownfields Site Assessments (EPA 540-R-98-038, September 1998). (www.epa.gov/tio/download/char/brwnfdqa.pdf)

Guidance for Quality Assurance Plans EPA QA/G-5 (EPA/240/R-02/009, December 2002) (www.epa.gov/QUALITY/qs-docs/g5-final.pdf)

Guidance for Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan, EPA QA/G-5S (EPA/240/R-02/005, December 2002) (www.epa.gov/QUALITY/qs-docs/g5s-final.pdf)

These documents can be downloaded from the web, as indicated. Although these documents were prepared for the use of EPA brownfields grant recipients and EPA personnel, they contain a reasonable level of detail on the principals involved in developing a project QAPP.

5.3.2 Format

The recommended format for the QAPP is presented in Appendix A.4. Some sections may not be applicable to all sites. If the QAPP is included as part of a Final VRWP (and not as a separate document), then sections should be numbered accordingly as a subsection of a larger document.

5.4 Periodic Status Reports

The Voluntary Remediation Agreement requires periodic status reports. The frequency at which these reports are to be submitted is also specified in the Voluntary Remediation Agreement.

5.3.1 Content

Quarterly or periodic status reports, which detail activities completed for the current quarter or period and those planned for the upcoming quarter or period, are to be submitted to the department for the duration of the Voluntary Remediation Agreement. The status report shall identify any proposed variances to the approved Voluntary Remediation Work Plan, and report on any interim remediation progress. If quarterly groundwater monitoring is conducted, the status report should include the results of all monitoring, including a summary of analytical and water-level monitoring results, and current site maps depicting well locations.

5.3.2 Format

The recommended format for Periodic Status Reports is presented in Appendix A.5.

5.4 Voluntary Remediation Completion Report

Prior to issuance of the Final or Conditional Certificate of Completion, the participant must demonstrate to the New Mexico Environment Department (NMED) that site conditions meet the performance standard, as described in 20.6.3 NMAC, by submitting a voluntary remediation completion report to the NMED.

5.4.1 Content

The completion report must be submitted to NMED with the legal description of the affected property, and a signed Affidavit of Completion of Voluntary Remediation from the participant, that indicates that remediation is complete, in accordance with the Voluntary Remediation Agreement and applicable regulations and guidance. The content of the completion report includes:

- A summary of site assessment results for the site;
- All raw data associated with VRP activities including (but not limited to) sample analytical results, monitoring well construction details, borehole logs, etc.
- A summary of remediation activities conducted at the site;
- Sampling methods and results of verification sampling or monitoring that indicates that remediation is complete;
- The method used to evaluate potential risks posed by site-related contaminants that successfully demonstrates that the performance standard has been met, as described in Subpart I, Section 110 of the VRR;
- A description of all monitoring, affirmation of future non-residential land use, or engineering controls upon which the final remedy is dependent;
- Copies of all manifests, waste disposal records, or other documentation documenting the final disposition of all remediation-derived waste; and
- Any other pertinent information requested by the department that is reasonably necessary to meet the requirements of these regulations.

5.4.2 Format

The recommended format for the Voluntary Remediation Completion Report is presented in Appendix A.6.

5.5 Other Reports

The content and format for any other reports required by the Voluntary Remediation Agreement will be considered on a case by case basis.

Appendix A
Report Formats

Appendix A.1
Preliminary Voluntary Remediation Work Plan

- 1.0 Introduction**
 - 1.1 Background**
 - 1.2 Site Setting**
 - 1.3 Suspected Contaminants of Concern**
- 2.0 Summary of Proposed Sampling and Analysis Activities**
- 3.0 Summary of Proposed Remediation Activities**
- 4.0 How Proposed Activities Will Meet the VRP Performance Standard**

Appendix A.2
(Final) Voluntary Remediation Work Plan

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List of Figures

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Executive Summary

- 1.0 Introduction
 - 1.1 General Project Background
 - 1.2 Site History
 - 1.3 Suspected Contaminants of Concern
 - 2.0 Site Setting
 - 2.1 Geologic and Hydrogeologic Setting
 - 2.2 Potential Receptors
 - 3.0 Sampling and Analysis Activities
 - 3.1 Purpose of Investigation
 - 3.2 Sampling and Analysis
 - 3.2.1 Soil
 - 3.2.2 Ground Water
 - 3.2.3 Surface Water
 - 3.2.4 Air
 - 3.2.5 Other Media
 - 3.3 Quality Assurance/Quality Control Plan
 - 3.4 Planned Data Evaluation
 - 4.0 Remediation Activities
 - 4.1 Purpose of Remediation
 - 4.2 Remediation Goals
 - 4.3 Evaluation of Remedial Alternatives (by Media, i.e soil, ground water, surface water, air, or other media)
 - 4.4 Selected Alternative(s) (by Media, i.e soil, ground water, surface water, air, or other media)
 - 4.5 Remedial Design Bench Scale Testing (by Media, i.e soil, ground water, surface water, air, or other media)
 - 4.6 System Installation
 - 4.5.1 Soil
 - 4.5.2 Ground Water
 - 4.5.3 Surface Water
 - 4.5.4 Air
 - 4.5.5 Other Media
 - 4.7 Remediation System Operation and Maintenance
 - 4.8 Long Term Monitoring of Systems
 - 5.0 Deliverables and Schedule for Completion of Work
 - 6.0 Discussion of How Proposed Activities Meet the VRP Performance Standard
- Appendix A Health and Safety Plan
- Appendix B Management of Investigation Derived Waste Plan

Appendix A.3 Site Health and Safety Plan

Site Name/Location: _____
Site Activity: _____

Possible Hazards

Chemicals (list) _____

Confined Space	Excavation	Entry		
Entry	_____	_____	_____	_____
Oxygen	UXO	Radiation		
Deficiency	_____	_____	_____	_____
Combustible	Unlabeled	Clandestine		
Gas	Containers	Drug Lab		
Incompatible /				
Unstable Mat.	_____	_____	_____	_____
Drill Rig	Machinery	Noise		
Heat	Cold Stress	Stress		
Hantavirus	Other	_____	_____	_____
	Biohazard			

Other (describe) _____

Minimum Level of Protection Required A _____ B _____ C _____ D _____
Maximum Level of Protection Anticipated A _____ B _____ C _____ D _____

Personal Protection Equipment to be Available

Monitoring Equipment to be Available

Decontamination Procedures

Personnel:

Equipment:

Site Resources

Site Control (who and how) _____
Site Telephone # _____ Cell Phone # _____
Radio Unit # _____
Water Supply _____ Eye Wash _____ Fire Extinguisher _____ First Aid Kit _____
Site Operator _____ Other _____

Spill Contingency Plan (if needed):

Emergency Information

Phone numbers if not 911:

Ambulance _____ Fire Dept. _____ Police _____

Poison Control Center 1-800-432-6866; NMED 24 hour emergency 827-9329

Route to nearest emergency medical facility (sketch or attach map)

Sketch of Site, Anticipated Hazards and Exclusion Zone (if needed):

Prepared by _____ Date _____

Title _____

Approved by _____ Date _____

Title _____

Appendix A.4

Quality Assurance/Quality Control Plan

List of Acronyms

- 1.0 Introduction**
 - 1.1 Background**
 - 1.2 Conceptual Site Model**
 - 1.3 Data Quality Objectives**
- 2.0 Project Management**
 - 2.1 Project Organization**
 - 2.2 Responsibilities**
 - 2.3 Training Requirements**
 - 2.4 Documentation and Records**
- 3.0 Data Acquisition**
 - 3.1 Sample Design**
 - 3.2 Sampling Method Requirements**
 - 3.3 Sample Handling and Custody Requirements**
 - 3.4 Analytical Methods**
 - 3.5 Quality Control**
 - 3.5.1 Field**
 - 3.5.2 Laboratory**
 - 3.6 Instrument/Equipment Testing, Inspection and Maintenance**
 - 3.7 Instrument Calibration Procedures**
 - 3.8 Inspection/Acceptance Requirements for Supplies and Consumables**
 - 3.9 Management of Work Plan Deviations**
- 4.0 Data Validation and Usability**
 - 4.1 Data Review, Validation, and Verification Requirements**
 - 4.2 Validation and Verification Methods**
 - 4.3 Reconciliation with Data Quality Objectives**
- 5.0 Data Management and Reporting**

Appendix A.5
Periodic Status Reports

- 1.0 Introduction
- 2.0 Activities Completed for the Current Period
 - 2.1 Activities Completed
 - 2.1.1 Progress of Characterization Activities
 - 2.1.2 Results of Any Ongoing Monitoring Activities
 - 2.1.3 Progress of Remediation Activities
 - 2.1.4 Other Activities
 - 2.2 Variances to the Approved Voluntary Remediation Work Plan
- 3.0 Activities Planned for the Upcoming Period
 - 3.1 Planned Activities
 - 3.1.1 Planned Characterization Activities
 - 3.1.2 Planned Ongoing Monitoring Activities
 - 3.1.3 Planned Remediation Activities
 - 3.1.4 Other Planned Activities
 - 3.2 Proposed Variances to the Approved Voluntary Remediation Work Plan

Appendix A.6

Voluntary Remediation Completion Report

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 - 1.4 Conceptual Model of Site Contamination or Impacts
- 2.0 Summary of Site Sampling and Analysis Activities
 - 2.1 Purpose of Investigation
 - 2.2 Results of Sampling and Analysis (by media, as applicable)
 - 2.2.1
 - 2.3 Nature and Extent of Contamination
- 3.0 Results of Remediation Activities
 - 3.1 Status of Site Remediation (by media, as applicable)
 - 3.2 Planned Long Term Remediation System Operation and Maintenance
 - 3.3 Institutional Controls or Use Restrictions
- 4.0 Assessment of Background Data and Associated Site Impacts
- 5.0 Discussion of How Activities Meet the VRP Performance Standard
 - 5.1 Fate and Transport of Contamination Remaining on Site
 - 5.2 Evaluation of Potential Exposure Pathways
 - 5.3 Risk Based Screening Levels Used
 - 5.4 Evaluation of Site Risk
- 6.0 Conclusions