

ATG, Inc.

Appendix 1

Remediation

of

Fort McClellan, Building 3192 and Grounds
Anniston, AL

Quality Assurance Plan

Allied Technology Group, Inc.
1515 Main Street
Genoa, OH 43430

December 1994

Fort McClellan
Remediation of Building 3192 and Hot Cell
December 1994

ATG, Inc.

PROJECT QUALITY ASSURANCE PLAN

Radiological Remediation

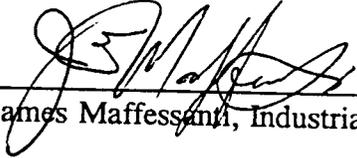
of

Fort McClellan Hot Cell and Grounds

Anniston, AL

December 1994

Concurrence:


James Maffessanti, Industrial Safety

Concurrence:


Bill Haney, Director Decontamination/Decommissioning

Approval:

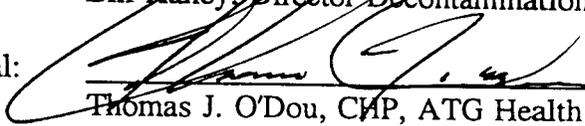

Thomas J. O'Dou, CHP, ATG Health Physicist

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1.0 INTRODUCTION

1.1 Background

Allied Technology Group has been contracted for the remediation of Building 3192, Hot Cell, and Grounds located at Fort McClellan, Anniston, Alabama. As a supporting part of the overall work plan for the project, this Project Quality Assurance Plan has been integrated into the Project Detailed Work Procedure to provide the necessary controls to successfully complete the contract requirements.

1.2 Project Scope and Objectives

Materials removed from the facility which can not be decontaminated will be packaged and shipped in accordance with applicable regulations and requirements. The Project Detailed Work Procedure has been developed to meet the applicable regulations and requirements. The Project Quality Assurance Plan has been developed to provide assurance that the regulations and requirements are complied with. The Project Health and Safety Plan will also be an integral part of the Project Work Plan.

No adverse impacts are expected in decontamination, handling, packaging or shipment of the material. The material will be handled and packaged by trained personnel within the confines of environmentally protected shelters.

The working personnel will be supplied with protective clothing and monitoring equipment and will have detailed procedures to guide them through the packaging and shipping operations, management and supervisory personnel will be on site to instruct and support the working personnel. The waste containers will be transported to the burial site by appropriate transport vehicles and drivers who are adequately trained for hauling hazardous materials.

2.0 QUALITY ASSURANCE PROGRAM

2.1 Project Quality Assurance Plan

The Project Quality Assurance Plan is to be implemented for the activities specified in the Project Detailed Work Procedure and the Project Health and Safety Plan. The Project Quality Assurance Plan highlights project specific

aspects of the applicable quality assurance elements. The specific quality assurance tasks are defined in the plan.

2.2 Quality Assurance Training

The Project Manager or designated alternate will perform the initial quality assurance training of the project personnel at the start of the project.

If additional personnel are added to the project, they will receive quality assurance training prior to participation in the project activities. Quality assurance training will consist of a review and discussion of the Project Detailed Work Procedure and supporting documents. Special emphasis will be placed on documentation of work, quality control checks, equipment performance, identification and control of radioactive material and safety procedures.

Each participant shall acknowledge that he/she has received training and that he/she understands the quality assurance requirements relevant to the project by signing and dating the Training Record, ATG Form 102.

2.3 Technical Training and Personnel Qualifications

Allied Technology Group management will review written statements of qualification or resumes to establish personnel capabilities and qualification to perform the assigned task. If personnel qualification, including education, experience, and training do not meet project needs, appropriate training including "read and study" and "on-the-job" training will be performed or other appropriately qualified individuals will be assigned to perform the task.

Management review of personnel qualifications and acceptance that an individual is qualified to perform the work will be documented on the Review of Personnel Qualification, ATG Form 103. Personnel records shall be maintained in the quality assurance record file and shall include; a record of the initial qualifications, documentation of review by the Project Manager or designee and acceptance of current qualifications or the need for additional training and a record of the completion of training. Project management shall monitor the performance of individuals involved in activities affecting quality and shall determine if there is a need for retraining or replacement. Retraining or replacement of individuals will be initiated immediately upon identification

of the need for such actions. The following guidelines shall be used to determine the proficiency and ability of the workers assigned to this project:

2.3.1 Qualification Requirements:

- 2.3.1.1 Physically capable of performing the work tasks.
- 2.3.1.2 Demonstrated capability to perform the specific function in accordance with approved procedures.
- 2.3.1.3 Familiarity with technical aspects of the equipment and procedures, and capability to verify that the equipment is in proper working condition.

2.3.2 Capability Demonstration:

- 2.3.2.1 The Project Manager or designee shall determine the type of training or experience required to determine if personnel are qualified to perform the specific tasks.
- 2.3.2.2 The individual workers shall review the approved Project Detailed Work Procedure.
- 2.3.2.3 The individual workers shall demonstrate their understanding of the Project Detailed Work Procedure.

3.0 ORGANIZATION

The Project Quality Assurance Plan oversight will be performed by the Director, Decontamination and Decommissioning (hereafter, "Director") and the Project Manager. Personnel performing the work tasks will be responsible for individual quality items and will be audited by the Project Manager or designee.

The Director is responsible for assuring that the Project Quality Assurance Plan is implemented and is adhered to. All project records and documents will be submitted to the Director for final approval.

The Project Manager reports to the Director and will act as an on-site quality auditor. The on-site audit reports and records will be submitted to the Director. Quality items that will impact the performance of the contract will be immediately submitted. Copies of all reports, records or correspondence will be maintained on site for review by the Government's representative.

4.0 CONTROL OF DATA

4.1 Planning

The work tasks necessary to complete this contract will be performed in a planned, systematic manner. To assure adequate project planning, a Project Detailed Work Procedure will be approved prior to the start of work. The Project Detailed Work Procedure will specify the required data collection and records to verify that the contract commitments have been met.

4.2 Data Collection

Data collection will be performed by the individual performing the tasks or their supervisor. Data collection will be performed in accordance with the Project Detailed Work Procedure, Project Quality Assurance Plan and the Project Health and Safety Plan requirements.

4.3 Documentation

Data collection shall be fully documented on the appropriate data records and daily project logs. All records shall be complete and thorough as possible hand written, legible and in ink. Personnel making a change to a record shall cross out the old entry with one line, add the new information and initial and date the change. Under no circumstances shall the old entry be scratched out, whited out, erased or otherwise removed or made illegible. When applicable, an explanation should accompany the change or correction.

4.4 Quality Control Checks

All data shall be reviewed and checked by a technically qualified person such as the Corporate Health Physicist, the RCS or the Project Manager. These checks shall be made to assure that both the technical, operational and quality

assurance requirements have been met. The following guidelines will be used to perform the quality control checks:

4.4.1 Verify that the record contains;

4.4.1.1 The project name or task description

4.4.1.2 Name or initials of the performer

4.4.1.3 Date of performance

4.4.1.4 Page number if pertinent.

4.4.2 And, if pertinent, that the record has;

4.4.2.1 Conformed with the appropriate procedures

4.4.2.2 Instrument calibration data (instrument identification, calibration date, certificate of calibration, etc.) of survey instruments used is current

4.4.2.3 Completeness and adequacy of the performance and documentation

4.4.2.4 Accuracy of material documented.

If the material being checked conforms to the guidelines, the individual performing the quality control check shall sign and date the record. If the material is rejected, it shall be handled in one of two ways:

4.4.3 Discuss and correct minor deviations with responsible personnel resulting in subsequent acceptance or,

4.4.4 Initiate corrective action procedures in the form of a Nonconformance Report.

4.5 Management Review

The Project Manager shall review all data records prior to submitting them to the Director. The same steps shall be taken with the review that are taken with the quality control checks.

5.0 PROCUREMENT DOCUMENT CONTROL

Procurement or acquisition of barrels, plastic bags, protective clothing, safety equipment and radiological survey equipment, etc. may be needed to perform the work tasks. The procurement documents and packing lists will be reviewed upon receipt by the Project Manager or designee to verify that appropriate quality assurance and technical requirements have been met. These records will be maintained with the other project records.

6.0 PROJECT DETAILED WORK PROCEDURE

The Project Detailed Work Procedure and the associated supporting documents shall be reviewed and approved by management. The Project Detailed Work Procedure will have systematically numbered steps and pages, a cover page and an approval page.

Distribution of copies to pertinent personnel will be accordance with Section 7, Document Control.

If revisions to the Project Detailed Work Procedure are necessary during the performance of the project, the Project Manager shall document the need for the revision on the Work Plan Change Request Form, ATG Form 104. A draft of the revisions shall be prepared and submitted to the Director. The proposed revision shall receive the same review and approval process as the original.

Only after final approval may the revision be issued to project personnel for implementation. The Project Manager shall be responsible for verifying that only current copies of the work plan are in use by project personnel.

7.0 DOCUMENT CONTROL

The Project Detailed Work Procedure and associated supporting documents shall be issued as a controlled document to assure that the current approved revision is in use.

Controlled copies of these documents will be issued to project personnel by the Director. The Director will maintain a distribution list of the controlled copies. Personnel assigned controlled documents will be required to acknowledge receipt of the document and all subsequent revisions to the document.

A document Distribution Record, ATG Form 105, shall be maintained to assure that current documents are distributed. When issuing a current document or document revision, a Document Transmittal Record, ATG Form 106 shall be submitted to the recipient. This record will demonstrate that current documents have been issued and are in use. The transmittal record shall be acknowledged and returned to the Director.

The recipient of the controlled document shall return the document to the Director when the requirements for its use ends. Upon return of the controlled document, the Director shall enter the date of return on the Document Distribution Record.

8.0 INSPECTIONS

All datum shall be reviewed and checked per Section 4.4, Quality Control Checks, to verify that they meet project requirements. For radiological measurements, quality control inspections will be performed by the Project Manager or designee. The quality control inspections will consist of randomly verifying survey techniques and survey meter results.

The Project Manager or designee will be responsible for completing the Daily Quality Control Checklist, ATG Form 107. The checklist is designed to account for Project Detailed Work Procedure activities that pertain to project tasks and radiation protection concerns.

Unsatisfactory items will be immediately rectified to bring the item to a satisfactory condition. The checklist is to be completed at the end of each shift for that days activities.

9.0 CONTROL OF MEASURING AND TEST EQUIPMENT

Measuring and test equipment shall be controlled and properly maintained to assure that the indicated results are accurate. Measuring and test equipment will not be used for any other purpose than the purpose the manufacturer intended. The equipment shall be stored, when not in use, in a controlled area so that environmental or physical

damage does not occur. Only personnel qualified to use the equipment will be allowed to perform work with the equipment.

Measuring and test equipment that do not perform properly or do not provide good, reproducible results shall be taken out of service. The equipment shall be tagged with an "out of service" tag and removed from the normal equipment storage area.

9.1 Calibration

Radiological survey meters will be supplied from the ATG - Ohio Technical Support Office. Meters used by ATG, Inc. are calibrated by a certified calibration facility at a minimum frequency of 6 months.

Copies of the primary calibration certificates will be sent with the meters to the job site. In addition, survey meters have an attached calibration sticker that indicated the calibration date and the calibration due date. Radiation survey meter performance testing and maintenance will be performed in accordance with the Radiation Survey Procedure.

10.0 HANDLING, STORAGE AND SHIPPING

All radioactive material will be packaged, handled and stored according to the appropriate health and safety procedures. Packaging contaminated soil shall conform to the procedures detailed in the Project Detailed Work Procedure. Packages shall meet the Department of Transportation (DOT) regulations and burial site requirements. Shipping shall meet all applicable DOT, State and Low Level Radioactive Waste Compact Commission regulations.

The shipment will be manifested using the appropriate disposal site Waste Shipment Manifest and continuation pages. The Project Manager shall inspect and sign off the shipping manifests.

11.0 CONTROL ON NONCONFORMANCE ITEMS

Procedures have been established and documented to control equipment and activities that do not conform to work plan requirements or whose quality does not meet the intended use. Nonconforming items, including reviewed data, shall be identified, documented, segregated or disposed of as appropriate. Nonconformance includes

noncompliance with the technical procedures, contract documents or errors in documented analyses or results. Nonconformance reports shall be prepared, including a description of the nonconformance and the proposed corrective action or disposition such as accept, reject, repair or rework. Nonconforming items or data shall be marked as nonconforming and shall not be used in any further activity until corrective action has been satisfactorily completed or an acceptable disposition approved by the Director.

Persons determining corrective action or disposition shall have demonstrated competence, have an adequate understanding of the requirement, and have access to pertinent background information. Proposed corrective action or disposition and completion of corrective action shall be reviewed and approved in accordance with Section 12.0, Corrective Action.

11.1 Identification and Reporting of Nonconformances

A nonconformance exists if there is a deviation from or noncompliance with the Project Detailed Work Procedure or contract specifications. Nonconformances also include major errors in documented analysis, data or results and deficiencies in documentation or any other aspect of the project that affects quality. Personnel who identify a nonconformance shall report the condition by,

11.1.1 Completing Part A of the Nonconformance Report, ATG Form 108,

11.1.2 Request a nonconformance number from the Project Radiological Controls Supervisor (RCS),

11.1.3 Distribute the nonconformance report to the Project RCS and the Project Manager.

11.2 Evaluation of Nonconformance Reports

The Project RCS and the Project Manager will review the nonconformance report to determine if any of the following conditions exist and document the findings by completing Part B of the Nonconformance Report.

11.2.1 The RCS may elect to evaluate the nonconformance item with the Government's representative or the Base Radiation Safety Officer to determine if the nonconformance item could invalidate the results of

ongoing work. If work is stopped, it shall be so noted on the nonconformance report. All affected work shall be immediately stopped and the Director notified. Work shall not be restarted until corrective action is approved and work authorized to restart by the Director and the Government's representative.

11.2.2 If the nonconformance constitutes a significant condition adverse to quality, determine the cause of the condition. Examples of significant conditions adverse to quality include significant failures to implement the Project Detailed Work Procedure, major errors in data or analysis which had previously been approved or a condition that may significantly impact the cost or schedule of the contract.

11.2.3 If the nonconformance has any impact on previously obtained data or reports submitted to the Director, Government's representative or the Base Radiation Safety Officer, the Project Manager shall note the impact in the remarks section of the nonconformance report and notify in writing all individuals and organizations that may be affected by the nonconformance and resulting data.

11.3 Tracking Nonconformance Reports

The Director shall monitor nonconformance reports to determine if trends adverse to quality are developing. If such trends are developing, such as, repetitive reports related to a particular activity, a written report will be submitted to all project personnel identifying the particular problem. The Director will evaluate the identified problem and propose and implement a written corrective action program to prevent recurrence of the nonconformance.

12.0 CORRECTIVE ACTION

Corrective action for conditions adverse to quality will be determined and implemented in a timely manner. Conditions adverse to quality are any of the following: failures, malfunctions, deficiencies, defective items and nonconformances. A significant condition adverse to quality is one which, if uncorrected, could have a serious effect on safety, operability or validity of data. The cause of the condition will be determined and action taken to preclude the recurrence of the nonconformance item. The Director shall verify that the corrective action has been implemented and, if necessary, that the Project Detailed Work Procedure has been revised.

12.1 Recommendation of Corrective Action

The project personnel that recommend the corrective action will document the recommendation on Part C of the Nonconformance Report. In the case of a nonconformance which is a significant condition adverse to quality, the corrective action shall be such as to preclude recurrence of the nonconformance. The recommended corrective action will be reviewed and approved by the Director.

12.2 Corrective Action Implementation and Verification

The approved corrective action shall be implemented by the appropriate project personnel. When implementation is verified by the Director and the Project Manager, Part D of the Nonconformance Report will be completed. The completed nonconformance report will be maintained on site with the nonconformance record log in the project file.

13.0 QUALITY ASSURANCE RECORDS

A quality assurance records system for the project will be implemented and maintained. Records shall be in ink, legible, identifiable and retrievable. The quality assurance records will be sufficiently detailed to properly reflect all work activities in the performance of this contract.

These records may be in the form of data sheets, notes, graphs, comments, computations and other graphic or written data generated in connection with the work activities. Records will be considered valid only if the individual completing the record has initialed or signed and dated the record. If revisions or changes to the quality assurance records are required, the changes will be made to the original records by crossing out the old entry with one line, adding the new information and initialing and dating the change.

The Project Manager will be responsible for maintaining and protecting the records. The records will be maintained on site with the project files. File access will be limited to project personnel and authorized contract personnel. At the completion of the project, the Project Manager will submit all project records to the Director.

14.0 QUALITY ASSURANCE AUDITS

No formal quality assurance audits are planned for this activity. A quality assurance audit may be performed if the Director deems necessary. Quality Assurance records will be evaluated and audited by the Director at the end of the project.