MODULE VI - CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS SCHEDULE OF COMPLIANCE

VI.A. CORRECTIVE ACTION PROGRAM

VI.A.1. The Permittee shall conduct corrective action in accordance with Module VI, for each Solid Waste Management Unit (SWMU) listed in Table 6-B, Attachment 6.

VI.A.2. On or before January 15th of each year, the Permittee shall update Table 6-B, Attachment 6 to this permit, to specify the status of each SWMU. The most recent update to Table 6-B shall be maintained in the Operating Record and incorporated by reference into Module VI.

VI.A.3. The Director may add SWMUs to Table 6-B, Attachment 6 of this permit, in accordance with Condition I.E.2. and Condition VI.K.

VI.A.4. The Permittee shall submit a facility-wide ecological risk assessment to the Director for approval within 180 days of completing of the Corrective Action Program.

VI.B. STANDARD CONDITIONS

VI.B.1. As specified in the conditions below, the Permittee shall submit all Corrective Action plans, reports, and schedules, in both hard copy and electronic format, to the Director for written approval. The Permittee shall revise and resubmit any Corrective Action plans, reports, and schedules as required by the Director in writing and within the time frames specified. Upon request by the Permittee, the Director may approve in writing an extension to any date to submit revised Corrective Action plans, report or schedules.

VI.B.2. All plans for corrective action or interim action shall identify site-specific procedures for containment and classification of any hazardous waste that is expected to be generated. The Permittee shall manage waste generated as a result of a corrective action in a manner to minimize dispersion of the waste to the environment. The Permittee shall characterize all waste within ninety (90) days of generation/excavation.

VI.B.3. Upon written approval by the Director, all final plans, schedules, and reports required by the conditions in Module VI are incorporated by reference into Module VI. Any non-compliance with such approved plans and schedules shall be deemed non-compliance with this permit and may be subject to enforcement action.

VI.B.4. The Permittee shall notify the Director of planned fieldwork once the plan for the specific fieldwork has been approved by the Director. The Permittee shall notify the Director at least seven days prior to conducting any sampling or other activities specified in the approved plans and reports described in this Module.

VI.B.5. All raw data, such as sample results, laboratory reports, drilling logs, bench scale or pilot scale data, survey data and other supporting information gathered or generated during activities undertaken pursuant to Conditions in this Module shall be maintained at ATK during the Post-Closure Care Period, unless the Director approves in writing alternate timeframes upon request of the Permittee. The Permittee shall provide copies of reports, logs, and other data to the Director upon request.

VI.B.6. Failure of the Permittee to submit the information required in this Module or falsification of any information submitted to the Director is ground for enforcement action.

VI.C. RCRA FACILITY INVESTIGATION

VI.C.1. The Permittee shall conduct a RCRA Facility Investigation (RFI) to determine the nature, magnitude and extent of known and suspected releases of hazardous wastes or hazardous constituents from each SWMU at the Facility, as identified in Table 6-B, Attachment 6. The data collected during the RFI shall be used to support the evaluation of risk to human health and the environment. The goal of the evaluation is to determine if additional investigation, corrective action, no further action, or site management is appropriate for each SWMU investigated. The Permittee shall conduct the RFI in accordance with this Module.

VI.C.2. The Permittee has submitted RFI Work plans and a RFI Phase I Report for SWMUs as indicated in Table 6-B. Upon review of the Phase I Report by the Director, the Permittee shall, as directed by this Module, initiate additional investigation, implement corrective action, or take no further action for each SWMU included in the Phase I Report. The Permittee shall conduct the proposed action as approved by the Director.

VI.C.3. By January 15th of each year, the Permittee shall submit, for Director written approval, annual schedules for the SWMUs to be investigated during the next reporting period. The annual update to Table 6-B, required by Condition VI.A.2, shall be included with the annual schedule. The schedule shall identify when the Permittee plans to conduct work or submit RFI, CAP, Interim Measure, or other work plans and reports as appropriate for the SWMUs identified in Table 6-B.

VI.C.4. The Permittee shall notify the Director of all newly identified SWMUs in accordance with Section VI.K. of this Module.

VI.C.5. Flexibility in the corrective action process may be allowed in order to promote efficiency. Therefore, elements of the RFI Work plans, Corrective Action Plans, Interim Measure Plans or their associated reports may be combined or removed by the Permittee upon written approval by the Director.

VI.D. RFI WORK PLAN

VI.D.1. RFI Work plans, for SWMUs as identified in Table 6-B, shall be submitted to the Director for written approval. The objective of the RFI Work plan is to describe in detail how the nature, magnitude, and extent of known and suspected releases of solid and hazardous wastes and constituents will be determined. The Permittee shall implement all RFI Work plans according to the schedule provided in each RFI Work plan as approved by the Director in writing. The Permittee may modify the RFI implementation schedule upon written approval by the Director.

VI.D.2. The RFI Work plan shall be developed based on a site-specific conceptual model for each SWMU or SWMU group and R315-101. Specifically, the RFI Work plan shall include:

VI.D.2.a. A legal description or Global Positioning System (GPS) coordinates for the site;

VI.D.2.b. Historical land use and ownership of the site;

VI.D.2.c. Maps or aerial photos showing physical structures, buildings, spill areas, source areas or waste units as appropriate;

VI.D.2.d. Information and maps to describe the geology, hydrogeologic conditions and surface water at the site;

VI.D.2.e. An inventory of all current and past waste streams managed at the site, including process descriptions and suspected contamination source information;

VI.D.2.f. Data quality objectives;

VI.D.2.g. A Quality Assurance Plan that describes procedures for sampling and analysis activities, in accordance with the Attachment 3 QAPP, that will generate data that meets the data quality objectives. Site-specific data quality requirements shall be addressed as needed;

VI.D.2.h. Sampling and analysis plans; and

VI.D.2.i. A schedule for completing the investigation and for submitting the RFI Report.

VI.D.3. Upon Director written approval, the Permittee shall implement the RFI according to the Work plan schedule.

VI.E. RFI REPORT

VI.E.1. Upon completion of the RFI, the Permittee shall submit a RFI Report to the Director for written approval according to the RFI Work plan approved schedule. This schedule may be updated as needed based on the progress of the RFI. The RFI Report shall include:

VI.E.1.a. All data collected during the RFI, including QA/QC information, and other relevant data held by the Permittee;

VI.E.1.b. An analysis and summary of the investigation describing the nature, magnitude and extent of contamination at the site;

VI.E.1.c. Maps, photos and diagrams as appropriate to show the site, sample locations and other relevant features;

VI.E.1.d. Background concentrations of naturally occurring compounds as appropriate;

VI.E.1.e. A discussion of the potential for impacts to human health and the environment considering contaminant migration pathways;

VI.E.1.f. A discussion on data gaps and the need for collecting additional samples, if the Permittee recommends additional investigation;

VI.E.1.g. A recommendation for additional investigation, corrective action, no further action, or site management for each SWMU investigated under the RFI Work plan;

VI.E.1.h. A Human Health and Ecological Risk Assessment for each SWMU investigated under the RFI Work plan if the Permittee recommends no further action or site management; and

VI.E.1.i. A schedule for submitting a Phase II RFI Work Plan, Corrective Action Plan, Site Management Plan or Human Health and Ecological Risk Assessment.

VI.F. ADDITIONAL INVESTIGATION

VI.F.1. If the Permittee recommends additional investigation in the RFI Report, the Permittee shall submit a Phase II RFI Work Plan to the Director for written approval in accordance with Condition VI.E.1.i. The Phase II RFI Work Plan shall include:

VI.F.1.a. An updated conceptual site model based on the results of the RFI;

VI.F.1.b. Sampling and analysis plans for Phase II of the RFI;

VI.F.1.c. Data quality objectives;

VI.F.1.d. Other information as needed to achieve the objective of the RFI; and

VI.F.1.e. A schedule for completing the investigation and for submitting the Phase II RFI Report.

VI.G. CORRECTIVE ACTION

VI.G.1. If the Permittee recommends corrective action in the RFI Report or Phase II RFI Report, the Permittee shall submit a Corrective Action Plan to the Director for written approval in accordance with Condition VI.E.1.i.

VI.G.2. The Director may approve the corrective action method proposed in the Corrective Action Plan, or may require a Corrective Measures Study be prepared and submitted to the Director for written approval.

VI.G.3. If a corrective measures study is required, it shall include a summary of potential corrective action technologies evaluated by the Permittee. The Permittee shall address the long-term reliability, effectiveness and implementability of the alternatives.

VI.G.4. The Corrective Action Plan (CAP) shall include:

VI.G.4.a. An introduction describing the overall purpose of the CAP;

VI.G.4.b. A summary of the current conditions and conceptual site model for SWMUs included in the CAP;

VI.G.4.c. Corrective action objectives, including proposed media cleanup standards;

VI.G.4.d. A proposal for corrective action that shall satisfy corrective action objectives, attain cleanup standards, control the sources of releases, and comply with applicable standards for the management of wastes;

VI.G.4.e. A detailed description of how the corrective action will be implemented;

VI.G.4.f. Engineering design plans and specifications for the corrective action, if applicable;

VI.G.4.g. An Operation and Maintenance Plan for the corrective action process, if applicable;

VI.G.4.h. Corrective action completion criteria to determine when corrective measures have achieved the cleanup objectives;

VI.G.4.i. A monitoring plan, if applicable, that describes how the effectiveness of the corrective action will be assessed;

VI.G.4.j. Detailed plans for confirmation soil sampling or other sampling as appropriate. Data quality objectives and a data quality assurance plan shall be included with the sampling plan. Site specific data quality requirements shall be addressed as needed; and

VI.G.4.k. A schedule for the implementation of the corrective action and submittal of progress reports and final Corrective Action Report.

VI.G.5. Upon written approval of the CAP, the Permittee shall implement the corrective action according to the schedule contained in the CAP.

VI.G.6. The Permittee shall submit a Corrective Action Report in accordance with the schedule in the approved CAP. The Corrective Action Report shall include:

VI.G.6.a. A description of the corrective actions that were conducted, including any actions that deviated from the approved plan;

VI.G.6.b. An analysis and summary of the corrective action results and whether the approved corrective action objectives and cleanup standards were met;

VI.G.6.c. All data and quality assurance collected from confirmation or other sampling conducted to determine if cleanup standards have been met;

VI.G.6.d. Recommendations for additional corrective action, no further action, or site management for the SWMUs addressed in the Corrective Action Report; and

VI.G.6.e. A schedule for submitting a revised Corrective Action Plan or Human Health and Ecological Risk Assessments.

VI.H. DETERMINATION OF NO FURTHER ACTION

VI.H.1. At any time during an investigation of a SWMU, the Permittee may petition the Director for a determination of no further action (NFA).

VI.H.2. If the Permittee recommends NFA in the RFI Report, Phase II RFI Report, Interim Measures Report or after corrective action for a SWMU has been completed, the Permittee shall submit Human Health and Ecological Risk Assessments to the Director for written approval.

VI.H.3. The Human Health and Ecological Risk Assessments shall be conducted in accordance with R315-101.

VI.H.4. A proposal for NFA shall contain information based on the SWMU Assessment

Report, identified in Condition VI.K.2., the RFI Report, the Interim Measure Report, the Corrective Action Report or any other information that demonstrates that:

VI.H.4.a. Hazardous waste or hazardous constituents are not detected; or

VI.H.4.b. Hazardous waste or hazardous constituents have been detected, but are below background concentrations; or

VI.H.4.c. Hazardous waste or hazardous constituents have been detected, but do not pose a threat to human health or the environment; in accordance with R315-101.

VI.H.5. A determination of NFA, in accordance with Condition VI.H.1., shall not preclude the Director from requiring further investigations, studies, or remediation at a later date if new information or subsequent analysis indicates a release or potential of a release from a SWMU at the Permittee's facility.

VI.I. SITE MANAGEMENT PLAN

VI.I.1. Any SWMU that does not meet the NFA requirements of Condition VI.H. following corrective action, or otherwise needs site management, as described in R315-101, shall be managed to control the risk to human health and the environment.

VI.I.2. If the Permittee proposes site management for SWMUs that do not qualify for NFA, the Permittee shall submit to the Director for written approval a Site Management Plan (SMP). The SMP shall be based on the results of a Human Health and Ecological Risk Assessment conducted in accordance with R315-101. The Risk Assessments and Site Management Plan shall meet the requirements of R315-101 and at a minimum include the following:

VI.I.2.a. A description of the SWMU and summary of the site characterization as described in the RFI Report, including a summary of the magnitude, nature, and extent of the contamination;

VI.I.2.b. A summary of the conclusions of the Human Health and Ecological Risk Assessment, including identification of all potential receptors, and a conceptual model that describes the actual and potential human and environmental impact(s) from the residual contaminants at the site;

VI.I.2.c. A detailed description of how the risk at the SWMU will be managed to protect human health and the environment (e.g., fencing, inspection, maintenance, monitoring, etc.);

VI.I.2.d. An inspection program that will be used to monitor the SWMU or group of SWMUs to ensure that the site conditions have not changed and that the site

conceptual model is still appropriate. The inspection program shall include a description of what will be inspected, the inspection frequency, a description of what the inspector should evaluate, how to document and resolve problems, and an inspection checklist;

VI.I.2.e. Photos and figures of the SWMU or group of SWMUs, as needed, to show the location, explain access, and highlight distinctive features;

VI.I.2.f. An environmental covenant developed in accordance with Utah Code Section 57-25-101 et seq., and;

VI.I.2.g. A legal description and survey plat of the property.

VI.I.3. The Director may provide for public participation prior to approving a SMP as required by R315-101-7.

.

VI.I.4. The Permittee shall implement the SMP within thirty (30) days of receipt of written approval by the Director. If approval of the SMP or environmental covenant is delayed, the Director may require the Permittee to begin inspection, maintenance, monitoring, or other activities prior to SMP approval.

VI.J. INTERIM MEASURES

VI.J. The Permittee shall notify the Director upon discovery of a release of hazardous constituents from a SWMU. If the Permittee or the Director determines that a release or potential release of hazardous waste or hazardous waste constituents from a SWMU poses a threat to human health or the environment, the Director may require the Permittee to perform interim measures. The Permittee may also voluntarily perform interim measures. In determining the need for interim measures, the Director or the Permittee shall consider the following:

VI.J.1.a The actual or potential exposure to human or environmental receptors;

VI.J.1.b. The potential for further environmental degradation without interim measures;

VI.J.1.c. The presence of containers of hazardous waste, or hazardous waste constituents that may result in a release;

VI.J.1.d. Presence and concentration of hazardous waste, or hazardous waste constituents in the soil that have the potential to migrate to surface or ground water;

VI.J.1.e. Weather conditions that may promote the spread of contamination;

VI.J.1.f. Risks of fire, explosion, or accident;

VI.J.1.g. The time required to develop and implement a final remedy;

VI.J.1.h. Funding, contracting, or other administrative situations; and

VI.J.1.i. Other situations which may pose a threat to human health or the environment.

VI.J.2. If the Director or the Permittee determines that interim measures are needed, the Permittee shall submit an Interim Measures Plan (IMP) for Director approval.

VI.J.3. The IMP shall identify specific actions to be taken to implement the interim measures for removing the threat to human health or the environment. The IMP may be subject to public comment as determined necessary by the Director. The IMP shall include, but not be limited to the following:

VI.J.3.a. Proposed mitigation measures for the potential threat to human health and the environment that will be consistent with any long-term solution;

VI.J.3.b. Sampling and data collection plan, data quality objectives, and quality assurance plan;

VI.J.3.c. Design plans and specifications, construction requirements, operation and maintenance requirements, project schedules;

VI.J.3.d. Construction quality assurance objectives, inspection and documentation requirements; and,

VI.J.3.e. A schedule for the implementation of the interim measures and the submittal of progress reports and final Interim Measures Report.

VI.J.4. Upon written approval by the Director, the Permittee shall implement the interim measures as described in the approved IMP.

VI.J.5. The Permittee shall submit an Interim Measures Report to the Director for written approval in accordance with the schedule in the approved IMP. The Interim Measures Report shall include:

VI.J.5.a. A description of the interim measures that were conducted, including any measures that deviated from the approved plan;

VI.J.5.b. An analysis and summary of the interim measures results including whether the threat to human health or the environment was successfully removed or mitigated;

VI.J.5.c. All data and quality assurance collected from confirmation or other sampling conducted to determine if the objectives of the interim measures were met;

VI.J.5.d. Recommendations for additional corrective action, no further action, or site management for the SWMUs addressed in the Interim Measures Report;

VI.J.5.e. A schedule for submitting a RFI Work plan, Corrective Action Plan or Human Health and Ecological Risk Assessment.

VI.K. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY IDENTIFIED SOLID WASTE MANAGEMENT UNITS

VI.K.1. The Permittee shall notify the Director in writing within thirty (30) days of discovery of any newly identified sites, which the Permittee believes may meet the definition of a SWMU. The notification shall include all available information about the site as needed to justify a decision about the status of the site.

VI.K.2. Based on the information provided by the Permittee, and a possible site visit, the Director will determine whether the site should be declared a SWMU, or the site should be addressed through the interim measures process outlined in Section VI.J. of this Module (if managed as an interim measure the site does not need to be added to Table 6-B of Attachment 6).

VI.K.3. If it is determined that the site should be declared a SWMU, it shall be addressed through the RFI process outlined in Sections VI.D. and VI.E. of this Module and it shall be added to Table 6-B when it is updated in accordance with VI.A.2.

VI.K.4. Within thirty (30) days of making a decision as described in Condition VI.K.2., the Permittee shall provide a schedule for the submittal of an Interim Measures Plan or RFI Work Plan.

VI.L. REPORTING REQUIREMENTS

VI.L.1. The Permittee shall submit to the Director written Semiannual Progress Reports of all activities conducted pursuant to the Conditions of Module VI.

VI.L.2. The Semiannual Progress Reports shall be submitted each year on March 15th and September 15th and shall contain:

VI.L.2.a. An update on the status of RFI work conducted with a description of the work completed;

VI.L.2.b. Summaries of all problems or delays encountered during the reporting period and actions taken or to be taken to rectify problems; and

VI.L.2.c. A description of any work that deviated from the approved RFI Work plan.

VI.L.3. Upon written approval from the Director, the Permittee may receive extensions for report due dates for the submittals required by Module VI.

VI.L.4. The Director may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in these progress reports or other supporting information.

IV.M. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

IV.M.1. The Permittee shall be financially responsible for the development and implementation of the corrective action program in accordance with R315-264-101(b).

IV.N. PUBLIC PARTICIPATION

IV.N.1. Prior to approving any RFI, CAP, IMP, SMP, or NFA petition, the Director may provide for public participation as defined by R315-101-7.