

## **MODULE II - GENERAL FACILITY CONDITIONS**

### **II.A. APPLICABILITY**

- II.A.1. The requirements of this Permit module apply to all Hazardous Waste Management Units (HWMUs) identified within Modules III and IV.

### **II.B. DESIGN AND OPERATION OF FACILITY**

- II.B.1. The Permittees shall design, construct, maintain, and operate all of its HWMUs and surrounding areas to minimize the possibility of fire, explosion, or any sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, groundwater, or surface water that could threaten human health or the environment.
- II.B.2. Any request for changes to the existing HWMUs shall be in accordance with R315-270-42 of the Utah Admin. Code and Condition I.D.6. Any changes to a HWMU must be documented on as-built drawings and with a Utah certified professional engineering certification as required by R315-270-30(1)(2)(i) of the Utah Admin. Code.
- II.B.3. After review of the as-built drawings and field verification of the facilities, the Director will notify the Permittees in writing of any change that does not satisfy the operating requirements specified in this permit. If it is established that such changes are permit violations, the Director may require the Permittees to remove, replace or modify any construction inconsistent with this permit.

### **II.C. REQUIRED NOTICE**

- II.C.1. As required by R315-264-12(a)(1) of the Utah Admin. Code, the Permittees shall notify the Director in writing at least four weeks in advance of the date the Permittees expects to receive waste from a foreign source. Notice of subsequent shipments of the same waste from the same foreign source in the same calendar year is not required.
- II.C.2. When the Permittees arrange to receive waste from an off-site source, the Permittees must inform the generator in writing that they have the appropriate Permit for and will accept the waste the generator is shipping. As required by R315-264-12(b) of the Utah Admin. Code, the Permittees shall keep a copy of the written notice as part of the operating record.

### **II.D. WASTE ANALYSIS PLAN**

- II.D.1. The Permittees shall follow the procedures of the Waste Analysis Plan in Attachment 3 of this Permit. In addition, the Permittees shall comply with any other conditions involving waste analysis in this Permit.
- II.D.2. The Permittees shall use the test methods described in the Waste Analysis Plan in

Attachment 3 or an equivalent procedure that satisfies Condition I.O.3. and 4. Changes to a test method described in the Waste Analysis Plan, as a result of an improvement or refinement of that method, may be adopted by the Permittees and incorporated into this Permit, in accordance with R315-124-5 of the Utah Admin. Code and Condition I.D.

- II.D.3. The Permittees shall verify, using if necessary analytical techniques, the characteristics of each new or modified waste stream generated on or off-site in compliance with R315-264-13 of the Utah Admin. Code and Attachment 3. Analysis of all new, existing, or modified waste streams shall be kept in the operating record.
- II.D.4. The Permittees shall sample wastes to be stored at NIROP in accordance with R315-264-13 of the Utah Admin. Code and Attachment 3. Generator knowledge may suffice in characterizing waste streams. When the Permittees use generator knowledge to characterize chemical and reactive waste, they shall detail the physical and chemical characteristics of the waste. All waste characterization information shall be maintained in the operating record.
- II.D.5. At a minimum, the Permittees shall:
- II.D.5.a. Maintain properly functioning sampling and analytical equipment;
  - II.D.5.b. Use approved sampling and analytical methods; and
  - II.D.5.c. Submit an updated list of parameters, analytical methods, and sample preparation methods in Attachment 3 on an annual basis. The updated list shall be submitted to the Director on or before January 15<sup>th</sup> of each calendar year in accordance with Condition I.DD.
- II.D.6. Whenever the Director determines that the Permittees need to update the analytical methodologies or the version(s) of SW-846 that are being used by the Permittees' analytical laboratory, the Director will send written notification to Permittees. Within 30 days of receipt of the Director's determination, the Permittees shall request the Utah Department of Health, Bureau of Laboratory Improvement to update their laboratory certification with the new analytical methodologies. If it is not possible to complete the update within 180 days, the Permittees shall submit a written request for extension to the Director for approval.
- II.D.7. If the Permittees uses a contract laboratory to perform analyses, the laboratory shall be certified by the State of Utah to perform the contracted analyses. For parameters for which certification is unavailable, the laboratory shall provide quality control/quality assurance data sufficient to assess the validity of the data. The Permittees shall inform the laboratory in writing that it must operate under the Waste Analysis Plan conditions set forth in this Permit.

**II.E.            SECURITY**

II.E.1.        The Permittees shall comply with the security conditions and procedures contained in Attachments 2 and 5.

**II.F.            GENERAL INSPECTION REQUIREMENTS**

II.F.1.        The Permittees shall conduct inspections in accordance with R315-264-15 of the Utah Admin. Code, and the procedures and schedule in Attachments 4 and 5. In addition, the Permittees shall comply with the inspection conditions described in Modules III and IV.

II.F.2.        The Permittees shall remedy any deterioration or malfunction as required by R315-264-15(c) of the Utah Admin. Code. If the remedy for any emergency item, as defined in Attachment 5, Section 5.2.1, requires more than 72 hours to implement, the Permittees shall submit to the Director, before the expiration of the 72-hour period, a proposed time schedule for correcting the problem.

II.F.3.        Records of inspections shall be kept as required by R315-264-15(d) of the Utah Admin. Code.

**II.G.            RISK THRESHOLDS**

II.G.1.        The open burning operations at the NIROP Burning Grounds shall be conducted to minimize the risk to human health and the environment. The risk thresholds identified in Condition II.G. and the operating conditions in Module IV for the NIROP Burning Grounds are based on the information provided in Attachments to this Permit and the following site specific documents available for review in the Department of Environmental Quality, Division of Waste Management and Radiation Control files:

II.G.1.a.      The Risk Assessment Protocol to Support the Alliant Techsystems' Bacchus Works RCRA Subpart X Activities, December 1997;

II.G.1.b.      The response to the Division of Waste Management and Radiation Control, formerly the Division of Solid and Hazardous Waste, comments on the Risk Assessment Protocol to Support the Alliant Techsystems' Bacchus Works RCRA Subpart X Activities, December 1997, titled Alliant Techsystems Inc. Addendum to Burning Ground Risk Assessment Protocol, April 1998;

II.G.1.c.      The Sampling Results for "Slum" Emission Characterization, Volumes 1, 2 and 3, March 1998;

II.G.1.d.      The Human Health Risk Assessment in support of the Alliant Techsystems' Bacchus Works RCRA Subpart X Activities, September 2005; and

- II.G.1.e. The Acute Human Health Risk, March 2010, which evaluated the acute (one-hour exposure) inhalation noncancer health effects associated with inhalation of emission from the NIROP Burning Grounds.
- II.G.2. The Permittees shall submit to the Director by March 1<sup>st</sup> of each calendar year, an annual report on the operation of the NIROP Burning Grounds. This report shall at a minimum include the following:
  - II.G.2.a. An accounting of the quantities and types of reactive hazardous waste treated at the NIROP Burning Grounds, including all donor material and ignition compounds;
  - II.G.2.b. The estimated quantity of tetrachlorodibenzo(p)dioxin toxic equivalents (TCDD TEQs) released annually. The quantity was calculated by assuming TCDD TEQ emission factors as follows:
    - 2.89 x 10<sup>-11</sup> lbs/lbs for 1.1 propellant and materials contaminated with 1.1 propellant
    - 5.20 x 10<sup>-12</sup> lbs/lbs for 1.3 propellant that does not contain any contaminated materials
    - 1.28 x 10<sup>-10</sup> lbs/lbs for materials contaminated with 1.3 propellant and all other waste streams with a higher chlorine content than 1.1 propellant. The emission factor of 1.28 x 10<sup>-10</sup> lbs/lbs is based on the average of ODOBi test results for 1.3 propellants with contaminated materials representing conditions at both the ATK Bacchus NIROP and the ATK Promontory facilities;

Based on the Human Health Risk Assessment identified in Condition II.G.1.d, the Permittees shall not emit more than 5.12 x 10<sup>-6</sup> lbs (2.32 mg) of the TCDD TEQs in a calendar year;
  - II.G.2.c. An evaluation of the emission factors, identified in Condition II.G.1.c., used in the human health and acute human health risk assessments to determine whether these factors need to be updated;
  - II.G.2.d. A review of the of the human health risk assessment, identified in Condition II.G.1.d., to evaluate whether the slope factors and reference doses for carcinogenic and non-carcinogenic health effects related to the chlorinated dioxin, chlorinated furan and semi-volatile compounds have changed, and a review of the potential human health risk scenarios, identified in Condition II.G.1.a and b, used in the risk assessment to assure that these scenarios have not changed;
  - II.G.2.e. A review of the acute human health risk evaluation identified in Condition II.G.1.e., to determine whether any of the reference doses or one-hour exposure factors for non-carcinogenic health effects related to the chlorinated dioxin, chlorinated furan and semi-

volatile compounds have changed, and a review of the applicability of the acute human health exposure model used in the initial assessment; and

- II.G.2.f. A presentation of the sampling effort and a discussion of the results in accordance with Section 4 of the Soil Monitoring Plan.
- II.G.3. After reviewing this annual report required in II.G.2, the Director will inform the Permittees in writing which components of the risk assessments or Soil Monitoring Plan, if any, need to be updated.
- II.G.4. If the Permittees are required to update the human health risk assessment for the NIROP Burning Grounds, the Permittees shall modify the Permit in accordance with Condition I.D. of this Permit.

**II.H. PERSONNEL TRAINING**

- II.H.1. The Permittees shall conduct personnel training as required by R315-264-16 of the Utah Admin. Code and the training program outline found in Attachment 7. New personnel assigned to hazardous waste management responsibilities shall complete the required personnel training within six months after their hire date, assignment to the facility, or assignment to a new position at the facility. In addition, the Permittees shall comply with the following conditions:
  - II.H.1.a. Facility personnel shall take part in an annual review of their initial training in both contingency procedures and the hazardous waste management procedures relevant to the positions, in which they are employed;
  - II.H.1.b. The Permittees shall maintain training documents and records as required by R315-264-16(d) and R315-264-16(e) of the Utah Admin. Code and in accordance with the Training Plan in Attachment 7. These records shall indicate the type and amount of training received; and
  - II.H.1.c. The Permittees shall maintain a copy of the Training Plan at the facility until the facility is fully closed and closure is certified.

**II.I. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE**

- II.I.1. The Permittees shall comply with the requirements of R315-264-17 of the Utah Admin. Code.
- II.I.2. In addition to the requirements of R315-264-17 of the Utah Admin. Code, the Permittees shall comply with the conditions of Modules III and IV applicable to ignitable, reactive, or incompatible waste.

**II.J.            LOCATION STANDARDS**

II.J.1.            The Permittees shall comply with the location standards specified by R315-264-18 of the Utah Admin. Code.

**II.K.            PREPAREDNESS AND PREVENTION**

II.K.1.            The Permittees shall follow the Preparedness and Prevention Plan in Attachment 5.

II.K.2.            At a minimum, the Permittees shall equip and maintain at the facility, and keep in good operating condition, the equipment set forth in Attachment 5, as required by R315-264-32 of the Utah Admin. Code.

II.K.3.            The Permittees shall test and maintain the equipment specified in Condition II.K.2. as necessary to assure its proper operation in time of emergency.

II.K.4.            The Permittees shall maintain records of the testing, maintenance, and repair activities specified in Condition II.K.3., and keep schedules that identify the minimum and planned frequency for the performance of preventative maintenance activities in the operating record at the facility in accordance with Condition I.O.

II.K.5.            The Permittees shall maintain access to the communications or alarm system as required by R315-264-34 of the Utah Admin. Code.

II.K.6.            At a minimum, the Permittees shall maintain aisle space that allows the unobstructed movement of personnel, fire protection equipment, discharge control equipment, and decontamination equipment to any area of the facility operations in an emergency in accordance with R315-264-35 of the Utah Admin. Code. For the permitted storage areas, the Permittees shall maintain the aisle spaces identified in Module III and Section 4.4 of Attachment 4.

II.K.7.            At a minimum, the Permittees shall operate the NIROP Burning Grounds in accordance with Module IV and provide for unobstructed movement of personnel, fire protection equipment, discharge control equipment, and decontamination equipment to any area of the facility operations in an emergency in accordance with R315-264-35 of the Utah Admin. Code. For the NIROP Burning Grounds, the Permittees shall operate this treatment unit in accordance with Module IV and Sections 4.3.1 and 4.6 of Attachment 4.

II.K.8.            The Permittees shall attempt to make arrangements with state and local authorities as required by R315-264-37 of the Utah Admin. Code. Any refusals to enter into an agreement shall be documented in the operating record.

**II.L.            CONTINGENCY PLAN**

- II.L.1.        The Permittees shall immediately carry out the provisions of Attachment 6, and follow the emergency procedures described by R315-264-56 of the Utah Admin. Code, whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment. The Permittees shall comply with Condition I.T. in reporting releases to the Director.
- II.L.2.        The Permittees shall comply with the requirements of R315-264-53 of the Utah Admin. Code.
- II.L.3.        The Permittees shall review the Contingency Plan in accordance with R315-264-54 of the Utah Admin. Code and shall modify in accordance with Condition I.D., if necessary.
- II.L.4.        A trained emergency coordinator shall be available at all times in case of an emergency, as identified in Attachment 6 and required by R315-264-55 of the Utah Admin. Code.

**II.M.            MANIFEST SYSTEM**

- II.M.1.        The manifest tracking number shall be recorded in the operating record with each waste load that leaves the Permittees' facility. R315-262-217 and R315-264-74 of the Utah Admin. Code apply for all record keeping associated with the movement of these wastes.
- II.M.2.        The manifest tracking number shall be recorded in the operating record with each waste load that is received by the Permittees' facility. R315-262-217 and R315-264-74 of the Utah Admin. Code apply for all record keeping associated with the movement of these wastes.

**II.N.            RECORDKEEPING AND REPORTING**

- II.N.1.        The Permittees shall maintain an accurate written operating record at the facility in accordance with R315-264-73 and R315-264-1103 of the Utah Admin. Code.
- II.N.2.        The Permittees shall, by March 31<sup>st</sup> of each year, submit to the Director a certification pursuant to R315-264-73 of the Utah Admin. Code, signed by the owner or operator of the facility, or an authorized representative, that the Permittees have a waste minimization program in place to reduce the volume and toxicity of hazardous waste that they generate to the degree determined by the Permittees to be economically practicable; and that the proposed method of treatment, storage, or disposal is the most practicable method currently available to the Permittees which minimizes the present and future threat to human health and the environment.
- II.N.3.        The Permittees shall comply with the biennial report requirements of R315-264-75 of the Utah Admin. Code, by March 1<sup>st</sup> of each even-numbered reporting year. The report shall, at a minimum, include wastes generated, treated, and stored at the Permittees' facility

during the previous odd-numbered year.

- II.N.4. The Permittees shall submit additional reports to the Director in accordance with R315-264-77 of the Utah Admin. Code.
- II.N.5. All reports, notifications, applications, or other materials required to be submitted to the Director shall be submitted at the address shown in Condition I.DD.
- II.N.6. The Permittees shall maintain a copy of the certifications and reports required by Condition II.N.2. in the operating record and sign each certification in accordance with R315-262-41(a) and R315-270-11(d)(1) of the Utah Admin. Code.

## **II.O. CLOSURE**

- II.O.1. The Permittees shall close the facility in accordance with R315-264-110 through 120 of the Utah Admin. Code, R315-101 of the Utah Admin. Code and Attachment 8.
- II.O.2. For all HWMUs, minor deviations from the approved Closure Plan procedures necessary to accommodate proper closure shall be described in narrative form with the closure certification statements. The Permittees shall describe the rationale for implementing minor changes as part of this narrative report. Within 60 days after completion of closure of each HWMU, the Permittees shall submit the certification statements and narrative report to the Director.
- II.O.3. The Permittees shall amend the closure plan in accordance with R315-124-5 of the Utah Admin. Code and Condition I.D. whenever necessary, or when required to do so by the Director.
- II.O.4. The Permittees shall notify the Director in writing of the partial closure of any portion of the facility in accordance with R315-264-110 through 120 of the Utah Admin. Code. The Permittees shall notify the Director at least 180 days prior to commencement of final facility closure. The closure plan contained in Attachment 8 shall be reviewed by the Permittees, and modified if necessary, before commencing partial or final facility closure. If the closure plan requires modification, the plan shall be modified and submitted to the Director for approval in accordance with Condition I.D.
- II.O.5. After receiving the final volume of hazardous waste, the Permittees shall remove from the site all hazardous waste in accordance with the time frames specified in Attachment 8.
- II.O.6. The Permittees shall decontaminate or dispose of all facility equipment, structures, soil and rinsate as required by R315-264-114 of the Utah Admin. Code and Attachment 8. Facility equipment, structures and soil that cannot be decontaminated will be disposed of at a permitted TSDF.



- II.O.7. The Permittees shall certify that the facility has been closed in accordance with the specifications in Attachment 8, as required by R315-264-110 through 120 of the Utah Admin. Code, and shall provide a certification by an independent, Utah registered professional engineer qualified by experience and education in the appropriate engineering field.
- II.O.8. On the five-year anniversary date this Permit, the Permittees shall conduct a detailed evaluation of the closure cost estimates for the regulated units and determine whether the annual adjustments for inflation have been adequate to update the closure cost estimates.
- II.O.9. The Permittees shall revise the closure cost estimate upon request by the Director.
- II.O.10. The Permittees shall maintain the latest approved closure cost estimate in the operating record at the facility.
- II.O.11. In the event that any of the HWMUs covered by this Permit cannot be clean closed by decontaminating or removing contaminated structures and soil, or releases have occurred that have impacted soil or groundwater, the Permittees shall modify the Closure Plan for that HWMU in accordance with R315-124-5 of the Utah Admin. Code and Condition I.D. Within 30 days of the date that the Director approves the modification, the Permittees shall close the unit in accordance with the applicable provision of R315-264-110 through 120 of the Utah Admin. Code, R315-101 of the Utah Admin. Code and the approved Closure Plan.
- II.O.12. If a HWMU cannot be clean closed, the Permittees shall submit a survey plat and property description for the HWMU with the submission of the certification of closure for the HWMU in accordance with R315-264-110 through 120 of the Utah Admin. Code and R315-101 of the Utah Admin. Code.

**II.P. FINANCIAL ASSURANCE FOR FACILITY CLOSURE**

- II.P.1. The NIROP is a federal Government Owned/Contractor Operated (GOCO) facility; therefore, the Permittees are not required to demonstrate continuous financial assurance under R315-264-140 through 151 of the Utah Admin. Code.
- II.P.2. By July 30 of each calendar year, the Permittees shall adjust the closure cost estimate for inflation and submit the latest adjusted closure cost estimate for review and approval by the Director. After approval, the Permittees shall maintain the latest adjusted closure cost estimate in the operating record. For any new HWMU being placed into operation, an updated facility closure cost estimate must be prepared for the new unit(s), 60 days prior to waste being placed on or into the new unit.
- II.P.3. The Permittees shall revise the closure cost estimate whenever there is a change in the facility's closure plan that would change the cost estimate as required by R315-264-140 through 151 of the Utah Admin. Code.

**II.Q.            LIABILITY REQUIREMENTS**

II.Q.1.            The Permittees shall not be required to demonstrate continuous compliance with the liability requirements of R315-264-140 through 151 of the Utah Admin. Code because NIROP is a GOCO.

**II.R.            RECEIPT OF OFF-SITE WASTE PROHIBITED**

II.R.1            The Permittees shall not receive hazardous wastes that are generated off site except for:

II.R.1.a.            Wastes generated by the Permittees during sampling, investigation or remediation of sites contiguous or adjacent to the Permittees' facility;

II.R.1.b.            Wastes generated at another ATK owned or operated facility, and;

II.R.1.c.            Rocket motor segments from any source may be accepted for storage prior to treatment at an off-site TSDF.