

7.0 PERSONNEL TRAINING

This training program has been developed for employees who generate or manage hazardous wastes. The hazardous waste training program includes both classroom instruction, and individual study of operating procedures and on-the-job training designed to ensure that employees and operators are trained in how to properly manage hazardous waste and respond to environmental emergencies at the Bacchus Facility. The training program includes introductory training programs, continuing training programs, and a computerized system that documents training completed by each employee.

7.1 Training Program Outline

The purpose of the program is to train Bacchus Facility employees to perform their duties in a way that ensures compliance with all applicable regulations. There are five groups of employees defined in Section 7.1.2 included in this training program. All required training will be documented. This program described in this chapter identifies the introductory and annual refresher training that will be provided to the respective groups.

7.1.1 Training Director

The Training Director for the Bacchus Facility is the Manager of Environmental Services. Bacchus will assure that the Training Director has the necessary knowledge, training and experience to oversee training program for the Bacchus Facility. It is the Training Director's responsibility to audit training records and ensure compliance with the training plan. The Training Director will review and update the training program to ensure that it meets all requirements of R315-264-16 of the Utah Admin. Code and 29 CFR 1910.120.

7.1.2 Training Requirements

Employees included in the hazardous waste training program have been placed into five main groups which are identified in Table 7-1. Bacchus will maintain a list that identifies all of the employees in groups 2, 3A, 3B and 4 in accordance with the requirements of Section 7.3. Group 1 employees will be identified using a list or organizational charts. These lists or organizational charts will include sufficient detail so that a third party can determine if the employee belongs in Group 1, 2, 3A, 3B or 4 job title and description. See the Bacchus Facility organization charts for details, which are available upon request at the Bacchus Facility. Table 7.1 identifies the job title and job description for each of the groups.

Group 1 employees generate hazardous waste. This group includes the majority of the manufacturing, maintenance and support personnel at the facility. Their training is titled "Waste Generator Training" and is specific to the basic rules that apply to hazardous waste generation.

Group 2 employees include the following job titles:

- "Environmental Operator." Their primary function is to transport hazardous waste from the generation areas to hazardous waste storage areas. They also provide the manual labor at hazardous waste storage facilities, and the NIROP Burning Grounds.
- "Operations Team Supervisors" or "Operations Team Managers". Their primary function is to provide either first or second line supervision for Environmental Operators.

Group 3 employees include the following job titles:

- Group 3A employees include the following job title: “Environmental Engineer & OB Support” personnel. Their primary function is to provide technical, regulatory and management support for hazardous waste management activities at the Bacchus Facility Plant 1 and NIROP facilities, and the treatment activities at the NIROP Burning Grounds.
- Group 3B employees include the following job titles: “Environmental Engineers” and “Environmental Managers.” Their primary function of the environmental engineers is to provide technical and regulatory support for all on-site environmental activities associated with the Bacchus Facility Plant 1 and NIROP operations. The environmental managers are tasked with supervising the environmental programs at the Bacchus Facility Plant 1 and NIROP operations and supervising the Group 3 and 3A employees assigned to those operations.

Group 4 employees are on scene incident commanders and members of the Bacchus Fire Department. Their primary function is to provide the initial response for fires and chemical releases. No Group 4 employee will be the primary initial responder to a fire or chemical release, or act as the Incident Commander during an emergency situation until Bacchus confirms that they are a certified professional fire fighter and before the employee has completed his initial training.

The training program has been designed to meet the personnel training requirements of R315-264-16 of the Utah Admin. Code. The Waste Generator Training will be provided to Group 1, 2, 3A and 3B employees. In addition, Group 2, 3A and 3B employees will successfully complete Hazardous Waste Operations and Emergency Response (HAZWOPER) training, which at a minimum will be in accordance with 29 CFR 1910.120, that addresses general safety and health requirements and hazardous material emergency response procedures. The specifics regarding the Group 4 training requirement are described in Section 7.1.7.

Group 1, 2, 3A and 3B employees will complete their initial training requirements within 6 months of starting employment in any of the work groups identified above and in Table 7.1. Group 4 employees must complete initial training requirement before they assume the responsibilities of that group. Whenever an employee moves to a different group, the employee will complete the required initial training within 6 months of starting in new position. All Group 1, 2, 3A, 3B and 4 employees will receive refresher training annually. The annual training will be completed within 12-months of when the employee completed their initial training.

**Table 7.1
Training Groups**

Group	Job Title	Job Description
1	Operator	Employees within manufacturing, maintenance & test areas who generate hazardous waste incidental to their normal work activities.

Table 7.1 continued

2	Environmental Operator	Transports waste from generation areas to hazardous waste storage areas. Provides labor at all hazardous waste management facilities including storage areas and open burning.
2	Operations Team Supervisor	Provides first line supervision for Environmental Operators during all activities.
2	Operations Team Manager	Provides second line supervisor for Environmental Operators and Operation Team Supervisors during all activities.
3A	Environmental Engineer & OB support	Provides technical and regulatory support for all on-site environmental activities and treatment activities at the NIROP Burning Ground
3B	Environmental Engineer	Provides technical and regulatory support for all on-site environmental activities.
3B	Environmental Manager	Supervises environmental programs and the engineers assigned to them.
4	On Scene Incident Commander	Bacchus Fire Department employees who assume control of the incident scene during a Hazardous Waste Contingency Plan emergency.

7.1.3 Training Methods

Bacchus has a formal training program. Courses are taught in a formal classroom setting, online or by reviewing a written document. Courses are conducted by a Bacchus instructor, an outside instructor, by someone who has special expertise in the subject being taught or by independent study. The Training Director will review and assess the qualification of all trainers before they train any employees. Bacchus will maintain a record of all trainers and their qualifications in the facility's operation record.

Bacchus provides employees with on-the-job training and independent study by reviewing procedures or written materials specific to the work being done. Due to the safety hazards associated with the work at the Bacchus Facility all employees will complete their initial training before being permitted to work unsupervised in an explosive production area or a hazardous waste management area. All training is documented using a computerized tracking system. Successful completion of training is monitored by the Training Director.

Group 2 and 3A employees are trained in accordance with the procedures described in Bacchus procedure document 21000GV0001 "Burning Propellant at NIROP Burning Grounds", an internal confidential document. This document is managed by the Bacchus Facility Production Control group in accordance with internal procedure OP-43 "Bacchus Manufacturing Documentation Control" and revisions require written authorization from the Environmental, Operations and Safety departments. Group 2 and 3A employees are trained to new revisions of this procedure within 30 days of issuance using the training system described in Section 7.

7.1.4 Waste Generator Training

Waste Generator Training is required for all Group 1 and Group 2 employees, and is provided using Bacchus Facility specific operating procedures. Group 1 employees do not participate in emergency response efforts as defined in 29 CFR 1910.120(a)(3), nor do they work in operations defined in 29 CFR 1910.120(a) and are not required to have HAZWOPER training. Annual training is provided using area-specific waste management procedures. The initial training and annual refresher training are identical, and require approximately one hour to complete. The course contents and a description of each course are provided in Table 7.2 and in addition all employees receive Emergency Action Awareness training.

Table 7.2 Hazardous Waste Generator Training		
Title/Training Documentation	Content	Applicable Employees
LS BA Waste, Explosive	Establishes procedures for packaging and labeling explosive waste in manufacturing areas	Employees who generate propellant and explosive waste and their supervisors
LS BA Waste, Non-Explosive	Establishes procedures for packaging and labeling non-explosive waste in manufacturing areas	Employees and their supervisors who generate chemical waste
LS BA Facilities & Maintenance Environmental Requirements	Establishes environmental requirements for Facilities & Maintenance employees	Facilities & Maintenance employees and their supervisors who generate hazardous waste

7.1.5 RCRA Training

The RCRA training program has been designed to meet the Personnel Training requirements of R315-264-16 of the Utah Admin. Code for all Group 2, 3A and 3B employees. The purpose of the training is to ensure that the employees who manage hazardous waste are trained to perform their duties in a manner that ensures compliance with the operating conditions of the permit. The RCRA Training will teach Group 2, 3A and 3B employees the appropriate and applicable hazardous waste management and treatment procedures, including instruction in the implementation of emergency procedures that ensure that these employees will be able to respond effectively to emergencies. In addition, this training will include, at a minimum, procedures for the inspection, use, repair and replacement of the Bacchus Facility's emergency response and monitoring equipment, the proper response to fires or explosions, response to groundwater contamination incidents, and shutdown or evacuation of operations. The RCRA Training is administered through a combination of classroom and on-the-job training. The course content and description of each subject is provided in Table 7.3 and Table 7.4.

Table 7.3 describes the initial and annual RCRA Training that Group 2 employees will receive, and Table 7.4 describes the initial and annual RCRA Training that Group 3A and 3B employees

will receive. Group 2, 3A and 3B employees will receive their initial and annual update training in accordance with the schedule described in Section 7.1.2.

Table 7.3 RCRA Training – Group 2 Employees Training Documentation: RCRA Training	
Title	Content
Permit Requirements for Storage of Hazardous Waste	Provides a description of the permit and inspection requirements for the hazardous waste storage and treatment facilities to operate in accordance with regulatory requirements.
Emergency Action Training	Provides the requirements for emergency communication, reporting and responding to emergencies that could occur at the facility.
Hazardous Waste Contingency Plan	Reviews the current content of the Hazardous Waste Contingency Plan.
Department of Transportation Requirements for Transporting Hazardous Waste	Provides a review of Department of Transportation requirements associated with hazardous waste shipments.
Requirements for Generators of Explosive Waste	Identifies requirements for generators of explosive waste.
Requirements for Generators of Non-Explosive Waste	Identifies requirements for generators of non-explosive waste.
Environmental Requirements for Facility and Maintenance Operations	Identifies environmental requirements specific to Bacchus Facility operations and maintenance.
Storing Chemical Wastes	Identifies requirements for storing chemical wastes at HS-1 and the Ash Storage Pad.
Inspection Requirements	Identifies inspection requirements for permitted storage facilities.
Hazard Communication	Provides OSHA required hazard communication information specific for employees working at hazardous waste storage and treatment facilities.
Responding to Chemical/Hazardous Waste Spills	Identifies the procedures to safely clean up a spill at HS-1 and the Ash Storage Pad including contamination control, personal protective equipment requirements and decontamination requirements.
Hazardous Waste Sampling	Teaches techniques for sampling hazardous waste.
Preparing Drums of Waste for Shipment Off-Site	Identifies requirements for shipping hazardous waste off-site.

Table 7.3 continued

Title	Content
Storing Explosive Waste	Identifies requirements for storing waste explosives at: ES-2, the NG Remover Shed, and Buildings 32E, 31 and 45A.
Portable Fire Extinguisher Training	Teaches fire safety principles and demonstrates the inspection, use and care of portable fire extinguishers.
Picking Up Chemical Waste Material	Operating instructions for collecting and transporting chemical waste on-site.
Picking Up Chemical Waste Material	On-the-Job training – observe and perform the task.
Slum Pick-Up By Environmental Operation	Operating instructions for collecting and transporting explosive waste on-site.
Slum Pick-Up By Environmental Operations	On-the-Job training for Group 2 operations employees only.
Crushing Empty Drums	Operating instructions for crushing drums.
Crushing Empty Drums	On-the-Job training – observe and perform the task.
Operating a Wastewater Truck	Operating instructions for collecting and transporting wastewater on-site
Operating a Wastewater Truck	On-the-Job training – observe and perform the task.
Preparing Explosive Waste for Off-Site Shipment	Operating instructions for preparing explosive waste for off-site shipments.
Preparing Explosive Waste for Off-Site Shipment	On-the-Job training – observe and perform the task.

Table 7.4
Group 3A and 3B
RCRA Training - Group 3A and 3B Employees
Training Documentation: RCRA Training

Title	Content
Permit Requirements for Storage of Hazardous Waste	Provides a description of the permit and inspection requirements for the hazardous waste storage and treatment facilities to operate in accordance with regulatory requirements.
Emergency Action Training	Provides the requirements for emergency communication, reporting and responding to emergencies that could occur at the facility.
Hazardous Waste Contingency Plan	Reviews the current content of the Hazardous Waste Contingency Plan.

Table 7.4 continued

Title	Content
Department of Transportation Requirements for Transporting Hazardous Waste	Provides a review of Department of Transportation requirements associated with hazardous waste shipments.
Requirements for Generators of Explosive Waste	Identifies requirements for generators of explosive waste.
Requirements for Generators of Non-Explosive Waste	Identifies requirements for generators of non-explosive waste.
Environmental Requirements for Facility and Maintenance Operations	Identifies environmental requirements specific to facility and maintenance operations.
Storing Chemical Wastes	Identifies requirements for storing chemical wastes at HS-1 and the Ash Storage Pad.
Inspection Requirements	Identifies inspection requirements for permitted storage facilities.
Hazard Communication	Provides OSHA required hazard communication information specific for employees working at hazardous waste storage and treatment facilities.
Responding to Chemical/Hazardous Waste Spills	Identifies the procedures to safely clean up a spill at HS-1 and the Ash Storage Pad including contamination control, personal protective equipment requirements and decontamination requirements.
Hazardous Waste Sampling	Teaches techniques for sampling hazardous waste.
Preparing Drums of Waste for Shipment Off-Site	Identifies requirements for shipping waste off-site.
Picking Up chemical Waste Material	Operating instructions for collecting and transporting chemical waste on-site.
Storing Explosive Waste	Operating instructions for storing waste explosives at: ES-2, ES-3, the NG Remover Shed, and Buildings 32E, 31 and 45A.
Slum Pick-Up By Environmental Operations	Operating instructions for collecting and transporting explosive waste on-site.
Preparing Explosive Waste for Off-Site Shipment	Operating instruction for preparing explosive waste for off-site shipment.
Portable Fire Extinguisher Training	Teaches fire safety principles and demonstrates the inspection, use and care of portable fire extinguishers.

7.1.6 HAZWOPER Training

Group 2 employees are defined in 29 CFR 1910.120(a)(iv) as operators involving hazardous waste operations that are conducted at treatment, storage and disposal facilities. This group will complete a 24-hour HAZWOPER training course as part of their initial training requirements as identified in 1910.120(p). All Group 3A and 3B employees will complete, at a minimum, a 40-hour HAZWOPER Training course as part of their initial training requirements in accordance with 29 CFR 1910.120(e). The 40-hour course will be provided using a commercial course provider. Equivalent training as defined in 29 CFR 1910.120(e)(9) for Group 2, 3A and 3B

employees may be used where it can be documented that work experience and/or training has resulted in training equivalent to the training required in 1910.120(e)(1) through (e)(4). The information in Table 7.5 describes 8-hour HAZWOPER refresher course that will all Group 2, 3A and 3B employees will complete annually. The annual 8-hour HAZWOPER refresher course for Group 2, 3A and 3B employees will be provided on-site by the Training Director or a qualified designee. The course content and a description of each subject is provided in Table 7.5.

Table 7.5 Group 2, 3A & 3B 8-Hour HAZWOPER/RCRA Annual Refresher Course Training Documentation: HAZWOPER and RCRA Annual	
Title	Content
Permit requirements for Storage of Hazardous Waste	Review the hazardous waste permit requirements to operate in accordance with regulatory requirements.
Emergency Action Training	Review the requirements for emergency communication, reporting and responding to emergencies that could occur at the facility.
Hazardous Waste Contingency Plan	Review the current content of the Hazardous Waste Contingency Plan
Department of Transportation Requirements for Transporting Hazardous Waste	Review the Department of Transportation requirements associated with hazardous waste shipments.
Hazard Communication	Review the hazard communicate program.
<u>Chemical Waste Storage Requirements</u>	Review the requirements for storing non-explosive wastes at HS-1 and the Ash Storage Pad.
Explosive Waste Generator Requirements	Review the requirements for generators of explosive wastes.
Non-Explosive Waste Generator Requirements	Review the requirements for generators of non-explosive wastes.
Environmental Requirements for Facilities and Maintenance Operations	Review the requirements specific to facility and maintenance activities.
Cleaning up Chemical /Hazardous Waste Spills	Review the protocol for cleaning up chemical spills.
Portable Fire Extinguisher Training	Teaches fire safety principles and demonstrates the inspection, use and care of portable fire extinguishers.

7.1.7 On Scene Incident Commander

All Group 4 employees are on scene incident commanders and members of the Bacchus Fire Department. The employee must be a current professional fire fighter certified by the Utah Fire & Rescue Academy to no less than a Fire Fighter II level which satisfies the 29 CFR

1910.120(q)(6)(v) initial training requirements. In addition, Group 4 employees will all receive site specific training regarding the hazard communication system, the Contingency Plan and site specific dangers.

Group 4 will receive their annual training on-site by completing the material outlined in Table 7.6. This training includes specific information on storage and disposal facility requirements, the Hazardous Waste Contingency Plan, the emergency response notification system, response to fire, explosive and medical emergencies, and response to chemical spills which includes ground water contamination incidents.

Table 7.6 Group 4 On Scene Incident Commander Training Training Documentation: On Scene Incident Commander Training	
Title	Content
Treatment and Storage Facility Summary	Provides a summary of capacities and requirements for treatment and storage facilities
Hazardous Waste Contingency Plan	The emergency plan for hazardous waste storage and treatment areas
Response to Emergency Calls	Provides instructions on responding to emergency calls.
Response to Fire and Explosive Emergencies	Provides instruction on responding to fire and explosive emergencies
Emergency Response and Victim Transport	Provides instructions for emergency response and victim transportation.
Emergency Response to Hazardous Material Spills or Leaks	Provides instructions for emergency response to hazardous material spills or leaks including mitigation of impacts to human health or the environment.
Requesting Assistance From Outside Agencies	Provides instruction on requesting assistance from outside agencies

7.2 PROCEDURES FOR EMERGENCY EQUIPMENT

The RCRA and HAZWOPER training program instruct employees in the correct use of hazardous waste emergency and monitoring equipment. This equipment includes spill response hardware and personal protective equipment. Group 2, 3A, 3B and 4 employees are responsible for the inspection, use, repair and replacement of the facility's emergency response and monitoring equipment,

7.2.1 Emergency Communication Procedures and Alarm System

The RCRA training program prescribes (see Chapters 5 and 6) the methods for the use and maintenance of external and internal communication equipment and the correct procedures for controlling communications with other agencies, departments, and individuals. Employee orientation, notices, and other procedures detail the use of the Emergency Reporting System which is activated when an employee dials the Emergency/Disaster extension number 22222 on the Bacchus Facility phone system or 801-251-2222 to initiate emergency actions. The system immediately notifies internal company organizations.

7.2.2 Response to Fires and Explosions

The Bacchus Fire Department is trained to respond to situations involving explosives or highly flammable materials. The Contingency Plan details emergency response actions for fire and other emergencies that involve hazardous wastes, constituents or substances that could contaminate the environment.

7.2.3 Response to Potential Groundwater Contamination, Incidents and Procedures for Containing, Controlling, and Investigating Spills

The Bacchus Fire Department is trained to respond to all releases to the environment. Each release is immediately contained and managed. These actions minimize the potential for groundwater contamination. Records are maintained to document all releases to the environment.

7.3 ASSURANCE OF TRAINING

All completed training, including on-the-job training, classroom instructions, independent study, and training courses provided by off-site and commercial providers from off-site courses and commercial courses will be documented at the department level, and entered into the training documentation system for all Group 1, 2, 3A, 3B and 4 employees at the Bacchus Facility. The Training Director will review the records in the Training Documentation System on a monthly basis to ensure each Group 1, 2, 3A, 3B and 4 employee is up-to-date on all of their required training.

Training records for all current employees will be maintained until closure of the Bacchus Facility. Training records for former employees will be maintained for at least three years from the date the employee last worked at the Bacchus Facility.