

1

CHAPTER H

2

PERSONNEL TRAINING

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List of Figures

Figure	Title
H-1	Organizational Location of Training, Waste Handling, and Emergency Response Functions

1 within the Human Resources Department. The organizational structure of the Human Resources
2 Department and its relationship to the line organizations is shown in an abbreviated
3 organizational chart in Figure H-1. This chart also shows departments with key responsibilities
4 for waste management and emergency response.

5 The WIPP facility uses a modified version of the Systematic Approach to Training (**SAT**) to
6 analyze, design, develop, implement, and evaluate training.

7 This approach employs five distinct phases to develop programs. These phases are:

- 8 • Analysis
- 9 • Design
- 10 • Development
- 11 • Implementation
- 12 • Evaluation

13 In “analysis,” technical training and line management identify job performance requirements.
14 These requirements are derived by studying job duty areas, related tasks, and required skills and
15 knowledge. These derived skills and knowledge, in turn, form the blueprint for the “design”
16 phase. In “design” these requirements are translated into learning objectives, performance
17 standards, and test items. In “development” the products of design are incorporated into new
18 training programs or, if appropriate, incorporated into revisions of existing programs. Products of
19 development are lesson plans, qualification cards, student materials, and examinations.
20 Implementation of these programs then occurs. This may be through classroom instruction, on-
21 the-job-training, self-paced study, or any combination of the three. “Evaluation” is the final
22 phase of the SAT process. Evaluation uses feedback derived from several sources to improve or
23 enhance the training. The WIPP utilizes extensive guidance provided within the DOE Handbook,
24 “Training Program Handbook: A Systematic Approach to Training (DOE-HDBK-1078-94),” to
25 direct all program analysis, design, development, implementation, or evaluation. Further details
26 of these processes may be derived by reviewing this manual.

27 The Human Resources Department ensures that required RCRA-related training is conducted by
28 qualified instructors. On-the-job training is conducted by Level I instructors. Level I instructors
29 are subject matter experts; members of line organizations who have qualified on the related
30 equipment and have attended the on-the-job training course. Classroom instruction is provided
31 by Level II and Level III instructors. Level II instructors are members of Technical Training and
32 line organizations who are qualified to conduct limited classroom training in their technical area
33 of expertise. Level III instructors are members of Technical Training who are qualified to
34 conduct classroom training, skills evaluation, and needs assessment. Level II and III instructors
35 are required to attend a train-the-trainer course and periodic refresher training.

1 Cognizant line managers provide significant input on training requirements for the WIPP facility
2 to qualified instructors who develop the following, as required:

3 • Classroom Instruction

4 Objectives

5 Lesson Plans

6 Student Materials

7 Examinations

8 • On-the-Job Training

9 Qualification Cards

10 Technical training materials are approved by the Technical Training Manager and the cognizant
11 line manager.

12 Following technical training, trainees must successfully complete written examinations or oral
13 examinations conducted by boards made up of cognizant personnel (referred to as “oral boards”)
14 to demonstrate competency. The records of oral examinations are called “oral board sheets”.
15 These examinations are based on objectives and/or competency statements. Oral boards are
16 based on knowledge learned in the on-the-job training process. Trainees also provide feedback
17 on the content and quality of instruction, at this time, in the form of course critiques and verbal
18 input.

19 Technical training documentation is maintained by the Technical Training Group located at the
20 WIPP facility. These technical training records include:

- 21 • Course Attendance
- 22 • Completed Qualification Cards
- 23 • Off-Site Training Documentation
- 24 • Oral Board Sheets

25 A database is maintained which records training qualifications, and course attendance. The
26 database is used to identify course refresher and requalification dates. Training records on
27 current personnel are kept in the Technical Training files. Technical training records on former
28 employees are kept by the Technical Training Group for at least three years from the date of
29 employment termination from the WIPP facility. Training documentation for emergency
30 response training received by personnel called out in the WIPP Contingency Plan (Permit
31 Attachment F) is maintained by the Technical Training Group. The documents which define the
32 process by which these training activities are managed are maintained by the Technical Training
33 Group and are part of the Operating Record.

34 To ensure the safe and efficient operation of the WIPP facility, certain positions require formal
35 qualification. Department managers identify these positions based upon safety, complexity, and

1 involvement with hazardous waste handling operations. A document known as a “qualification
2 card” is prepared to identify required training for each designated position. In the case of
3 equipment and system/procedure qualification, a “qualification card” is prepared that specifies
4 the required knowledge and practical skills needed in such areas as equipment maintenance and
5 safety. Individual participation in the qualification card system is varied and is dependent on an
6 incumbent’s specific job duties. A complete listing of active qualifications, as they apply to any
7 individual position, may be determined by review of the WIPP Training Database. The list of
8 active WIPP Qualification cards is maintained at the WIPP facility.

9 When the qualification card is completed, that particular qualification is recorded. Successful
10 completion of formal classroom training is documented on the individual’s qualification card.
11 When requirements are met, both for classroom instruction and on-the-job training, and oral
12 board, if applicable, the qualification card is signed by the manager certifying that the employee
13 is fully competent to perform all aspects of the associated qualification. Qualification cards are
14 included in the training records maintained by the Technical Training Group. Qualification cards
15 are living documents subject to change as the scope and content of training changes to meet new
16 and revised regulatory requirements and modifications in job scope.

17 The hazardous waste management training program described in Section H-1b consists of a
18 series of courses designed to ensure that hazardous waste management employees at the WIPP
19 facility receive initial and continuing training relevant to their positions. These courses include
20 instruction on the RCRA and Occupational Safety and Health Administration regulations,
21 emergency procedures, and procedures for handling both site-generated hazardous waste and
22 TRU mixed waste. Visitors, temporary personnel, and contractors are trained commensurate with
23 the nature of their visit or duties. For visitors, this includes basic site safety and emergency
24 notification procedures. Visitors who require unescorted access are also required to take an
25 examination covering the material in the training they are given. Visitor records are maintained
26 by security. Temporary or subcontract personnel, if hired to fill a hazardous waste management
27 position, are required to complete the same training as permanent personnel. Record of this
28 training is maintained by Technical Training.

29 H-1a Job Title/Job Description

30 Employees at the WIPP facility who are involved in hazardous waste management activities
31 receive the same core training. A list of hazardous waste management job titles and position
32 descriptions are provided in Permit Attachment H1. An up-to-date list of personnel assigned to
33 these positions is maintained by the Permittees in accordance with 20.4.1.500 NMAC
34 (incorporating 40 CFR §264.16). These core hazardous waste management training courses are
35 described briefly in Section H-1(b)(1) and outlines of the core classes, as well as other job
36 specific training classes, are included in Permit Attachment H2. Any changes to the training plan
37 that decrease the type or amount of training that is given to employees will be handled as a Class
38 2 modification, as specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42). Other
39 changes to the training plan will be handled as Class 1 modifications. In accordance with
40 20.4.1.500 NMAC (incorporating 40 CFR §264.16(d)(2)), the job descriptions include hazardous
41 and TRU mixed waste management job duties, required skills, qualifications, and experience, as

1 well as educational requirements. These job descriptions are approved by the cognizant staff
2 managers. Included in the appendices are management and supervisory positions that are
3 considered to be critical from the standpoint of hazardous waste management or emergency
4 response. These include the following positions:

- 5 • Shift Manager, Facility Operations
- 6 • Manager, Hoisting Operations
- 7 • Manager, Radiation Control
- 8 • Manager, Waste Handling
- 9 • Team Leader, Inspection Services
- 10 • Manager, Environmental Compliance
- 11 • Manager, Technical Training

12 H-1b Training Content, Frequency, and Techniques

13 The WIPP training program includes a comprehensive combination of classroom training
14 courses and on-the-job training. Each training course is carefully developed and periodically
15 reevaluated to ensure relevancy to the course objectives and to ensure its support of the goal of
16 safe and environmentally sound operations at the WIPP facility. On-the-job training is
17 accomplished and documented through the use of qualification cards. Before an employee is
18 considered qualified to operate certain equipment, the person must pass a prescribed set of
19 performance standards.

20 H-1b(1) Training Content

21 WIPP facility employees who will be on site longer than 30 days, including personnel in
22 management and supervisory positions and personnel not directly involved with hazardous waste
23 management, receive facility-specific training in the following areas:

- 24 • General Employee Training (GET) Overview (procedures and policies)
- 25 • WIPP Facility Description
- 26 • Radiation Safety
- 27 • Emergency Preparedness (including RCRA Contingency Plan implementation)
- 28 • Security
- 29 • Fire Protection
- 30 • Quality Assurance
- 31 • Occurrence Reporting
- 32 • Industrial Safety
- 33 • RCRA
- 34 • Hazard Communication

1 This training is provided in GET-19X/GET-20X¹, conducted by the WIPP qualified instructors,
2 and must be completed within 30 days of employment.

3 Annual refresher training on the topics taught in GET-19X/GET-20X is given in the General
4 Employee Training Annual Refresher (GET-19XA/GET-20XA). This self-paced module
5 provides employees with a review and update of the topics covered in GET-19X/GET-20X.

6 WIPP employees involved in managing site-generated, nonradioactive waste, or TRU mixed
7 waste will receive the Hazardous Waste Worker course (HWW-101). This comprehensive course
8 will provide job specific training required to safely receive, transfer, or handle waste at the WIPP
9 facility. Review and update of HWW-101 topics is provided annually in the Hazardous Waste
10 Worker refresher course (HWW-102).

11 Course outlines for GET-19X/GET-20X, GET-19XA/GET-20XA, HWW-101, and HWW-102
12 are provided in Permit Attachment H2.

13 H-1b(2) Training Frequency

14 Hazardous waste management courses are offered at a frequency that ensures new hires or
15 transfers can receive relevant training within six months of assuming their new position.
16 Employees do not work unsupervised in hazardous waste management positions until they have
17 completed the required initial training. The Human Resources Department notifies the cognizant
18 manager and training staff when any employee is transferred into or out of a position associated
19 with hazardous waste management.

20 H-1b(3) Training Techniques

21 A variety of instructional techniques are used at the WIPP facility depending on the subject
22 matter and the techniques that best suit the learning objectives. Many courses include a
23 combination of lectures, demonstrations, visual aids (such as video tapes, slides, and
24 viewgraphs), and exercises. Most equipment operation courses include hands-on practical
25 instruction.

26 Written examinations are used as a technique to test and document the knowledge level of
27 individuals participating in classroom training courses. The length and content of each exam
28 varies according to its objective. Calculation, multiple-choice, and fill-in-the-blank, or other
29 approved formats, may be used. If individuals fail a written examination, they must be
30 reexamined in identified areas of weakness. Personnel filling positions requiring qualification
31 cards to perform job functions will be requalified at least biennially in those specific areas.

32 On-the-job training at the WIPP facility follows a prescribed set of standards specific to the job
33 to be performed. Typically, to become qualified to operate a piece of equipment or system,

¹ The "X" in the course number is assigned the last number of the current year (e.g., GET-195 is General Employee Training for 1995, GET-200 is for the year 2000). Course content is updated annually to provide the latest information available to students.

1 employees must be able to demonstrate the location and purpose of specified controls and
2 gauges, describe proper startup and shutdown procedures, describe specific safety features and
3 limitations of the equipment, and, in some cases, perform maintenance functions. They must also
4 demonstrate the ability to operate the equipment or system. On-the-job training may also be
5 function specific, such as performing a specific administrative function that is regulated.

6 In addition to on-the-job training, some positions require the trainee to attend an oral board. The
7 oral board is given upon completion of on-the-job training and prior to operating any equipment
8 unsupervised. In the oral board, the trainee is quizzed on knowledge learned in on-the-job
9 training. The purpose of the oral board is to determine if the trainee fully understands and can
10 apply the knowledge learned in the training process.

11 H-1c Training Manager

12 The Technical Training Manager directs the training program and is responsible for establishing
13 technical training requirements in cooperation with the line managers. Specifically, this includes
14 analysis, design, development, implementation, and evaluation of technical training. The
15 Technical Training Manager is trained in hazardous waste management procedures and receives
16 train-the-trainer and instructor training. The Technical Training Manager is also required to be
17 knowledgeable of the applicable regulations, orders, guidelines, and the specific training process
18 employed at the WIPP facility.

19 The name and qualifications of the current Technical Training Manager are documented at the
20 WIPP facility.

21 H-1d Relevance of Training to Job Position

22 The WIPP facility training program provides employees and their supervisors with training
23 relevant to their positions. A functional chart showing positions that receive training related to
24 hazardous waste management or emergency response is included as Figure H-1. This figure also
25 shows the next level manager for these positions. The SAT process mentioned in Section H-1 is
26 a systematic method for determining the proper training for each hazardous waste management
27 position. It compels managers and training staff to look critically at each position and determine
28 the necessary training program for each employee to fully develop their necessary expertise.

29 Several training courses are determined to be so basic to the WIPP Project mission that they are
30 considered relevant for all WIPP facility employees. The basic philosophy at the WIPP facility is
31 that, as a RCRA-regulated facility, employees must understand the basic regulatory requirements
32 under which the WIPP facility must operate. Therefore, all WIPP facility employees receive an
33 introduction to the RCRA during their introductory training.

34 Beyond these core courses, training is designed and implemented relevant to the specific job
35 functions being performed. For example, employees who operate key pieces of equipment
36 necessary to manage contact-handled (**CH**) or remote-handled (**RH**) TRU mixed waste (such as
37 forklifts, hoists, bridge cranes, cask transfer cars, etc.) must be trained to operate and inspect

1 equipment and to recognize maintenance problems before a specific job function is performed.
2 These employees must receive on-the-job training and demonstrate the ability to operate the
3 equipment, as appropriate, before being qualified. This process is controlled and documented by
4 the qualification process described in Section H-1. A complete listing of active qualification
5 cards, along with descriptions of training courses, are on file at the WIPP facility. Summaries of
6 qualification cards and other job specific training courses are included in Permit Attachment H2.
7 Waste handling personnel performing CH or RH TRU mixed waste handling tasks will be
8 qualified to the applicable specific equipment or system qualification card on file at the WIPP
9 facility.

10 Managers who have direct responsibility for supervising hazardous waste management personnel
11 receive hazardous waste management training relevant to their positions. This training will
12 include GET-19X/GET-20X and its refresher GET-19XA/GET-20XA, which is required for all
13 employees, and the Hazardous Waste Worker Supervisor course HWS-101 and its refresher
14 HWS-101A. In addition, a manager may also take HWW-101 and its refresher HWW-102 if
15 these courses are determined to be useful for his/her position. These course descriptions are
16 included in Permit Attachment H2. Managers who do not have direct hazardous waste
17 management supervisory responsibilities receive training sufficient to ensure their awareness of
18 hazardous waste management requirements and procedures; however, they do not perform
19 hazardous waste management duties and their positions are not included in the appendices. As is
20 the case with all WIPP facility employees, all managers receive RCRA overview training in
21 GET-19X/GET-20X.

22 Security personnel are an important element of the safe and secure operations at the WIPP
23 facility; however, they do not perform hazardous waste management functions during normal
24 operations at the WIPP facility. Security personnel who serve as members of a Fire Support
25 Team (see Section H-1e) receive emergency response training required of that team.

26 H-1e Training for Emergency Response

27 The WIPP facility training program ensures that personnel are able to respond appropriately and
28 effectively to emergency situations. WIPP facility employees receive GET-19X/GET-20X,
29 which includes instruction on hazard awareness, emergency preparedness, spill control, and the
30 WIPP RCRA Contingency Plan (Permit Attachment F). This training ensures that every
31 employee understands how to recognize real or potential emergencies and how to report such
32 incidents to the proper WIPP facility officials. It also ensures that employees will not endanger
33 themselves or others by taking actions beyond their ability. Emergency response personnel
34 receive more extensive training in emergency response procedures as described in the next
35 paragraph.

36 The WIPP facility emergency response organization is capable of providing emergency response
37 services both above ground and underground. The Emergency Response Team (**ERT**), under the
38 supervision of the Emergency Services Technician, has primary responsibility for above ground
39 emergency response activities, and the First Line Initial Response Team (**FLIRT**) and the Mine
40 Rescue Team (**MRT**) are responsible for underground emergency response activities. The

1 responsibilities of these units are described in the WIPP RCRA Contingency Plan, Permit
2 Attachment F. Members of these teams are volunteers from the WIPP organization. These teams
3 receive thorough emergency response training before they are called upon to perform in real
4 emergencies. This training includes firefighting elements, such as fire behavior, ladders, fire
5 hose, fire streams, and ventilation. The FLIRT includes current qualification for unescorted
6 underground access, National Fire Protection Association (NFPA) 600 Industrial Fire Brigades
7 requirements, and additional qualifications pertaining to the team. MRT training includes current
8 qualification for unescorted underground access, at least one year of underground work, Mine
9 Safety and Health Administration requirements for medical and mine rescue, and additional
10 qualifications pertaining to the team. ERT training includes NFPA 600 Industrial Fire Brigade
11 requirements, and additional training pertaining to the team. In addition, all teams receive
12 lifesaving elements, such as rescue, cardiopulmonary resuscitation and first aid, and other
13 specific elements, such as self-contained breathing apparatus. A list of required training for these
14 positions is included in each job position description in Permit Attachment H1.

15 Because these response teams are used for unusual occurrences and not routine hazardous waste
16 handling, a RCRA position title is not included. A duty description is included which
17 summarizes basic anticipated duties of these positions. Training records for these individuals are
18 maintained in each individual's training file in Technical Training located at the WIPP site.
19 These training requirements must be met prior to an individual serving in an emergency response
20 function

21 Hazardous waste handling and emergency response personnel receive training that ensures their
22 familiarity with emergency procedures, emergency equipment, and emergency systems
23 including:

- 24 • Procedures for using and inspecting facility emergency and monitoring equipment
- 25 • Repairing and replacing facility emergency and monitoring equipment (RADCON only)
- 26 • Communications and alarm systems
- 27 • Response to fires or explosions
- 28 • Shutdown of operations.

29 Course outlines for emergency response training courses are provided in Permit Attachment H2.

30 The RCRA Emergency Coordinator receives training relevant to the RCRA Contingency Plan
31 and must be familiar with the contents of the RCRA Contingency Plan prior to serving as RCRA
32 Emergency Coordinator. Documentation of this training is maintained in the RCRA Emergency
33 Coordinator's training file. All individuals qualified to serve as RCRA Emergency Coordinators
34 are required to complete Contingency Plan training (SAF-645). RCRA Emergency Coordinators
35 are notified of changes to the contingency plan by a document change notice, which is
36 distributed weekly. This notice lists all of the controlled documents that have been changed
37 during the week. Office wardens receive Office Warden Training (SAF-632) and are required to
38 take an annual refresher. In addition, the training requirements of the Central Monitoring Room

1 (CMR) operator are included in Permit Attachment H1. The CMR operator is listed in Permit
2 Attachment F as an emergency response related position.

3 As there are no automatic waste feed systems at the WIPP facility, training on parameters for
4 waste feed cut-off systems is not required. Similarly, as there is no potential for groundwater
5 contamination incidents at the WIPP facility, training for responding to such incidents is not
6 required.

7 H-2 Implementation of Training Program

8 The WIPP facility training program has been implemented to ensure that hazardous waste
9 management and emergency response personnel employed at the WIPP facility receive the
10 training indicated within the respective authorization cards. These authorization cards record
11 training that the individual team members have completed. Personnel are trained on the RCRA
12 Contingency Plan through their basic training. Newly hired employees receive the indicated
13 training within six months of their date of hire or their transfer to a new position. Personnel do
14 not work in unsupervised positions until they successfully complete the indicated training
15 requirements. Hazardous waste management personnel attend annual refresher courses that
16 review the initial training received and document knowledge transfer.

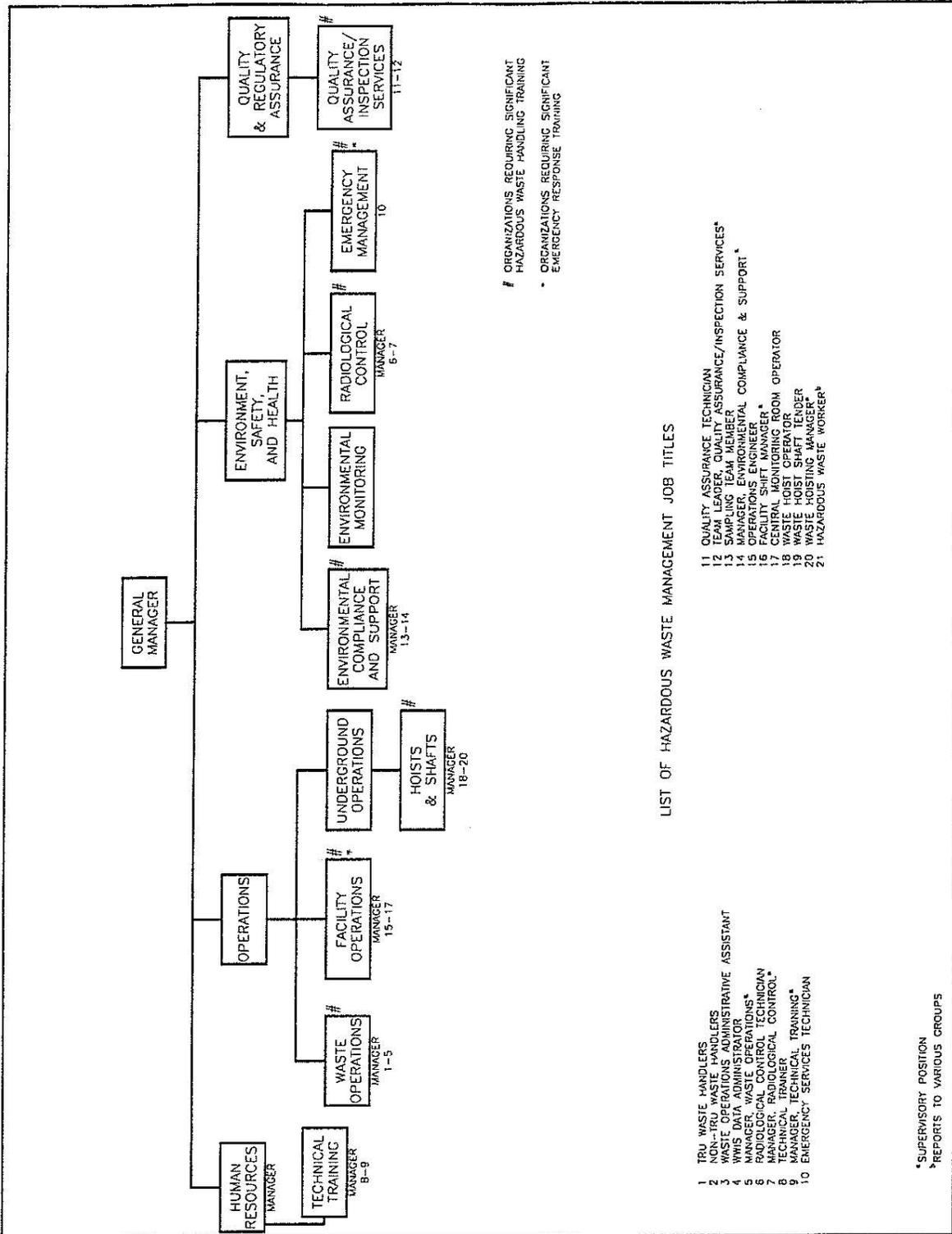
17 Records relating to the WIPP facility training program for hazardous waste management and
18 emergency response personnel are maintained by the WIPP Technical Training Group located at
19 the WIPP facility. These records include a roster of employees in hazardous waste management
20 positions; a list of courses required for each position; course descriptions; documentation when
21 each employee has received and completed appropriate training; and all of the backup
22 information regarding qualification and examination. Training records of current personnel are
23 kept by the Technical Training Group until closure of the WIPP facility. Records of former
24 employees are kept by the Technical Training Group for at least three years from the date the
25 employee last worked at the facility.

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FIGURES

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Figure H-1
 Organizational Location of Training, Waste Handling, and Emergency Response Functions