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**RENEWAL APPLICATION**  
**CHAPTER H**  
**PERSONNEL TRAINING**





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<del>H-1</del>	<del>Abbreviated WIPP Facility Organizational Chart Showing the Organizational Location of Training, Waste Handling, and Emergency Response Functions</del>



1 for training. The Technical Training Group is managed by the Technical Training Manager who  
2 has the responsibility for directing the training program. Members of the training staff are  
3 assigned to Technical Training within the Human Resources Department. ~~The organizational~~  
4 ~~structure of the Human Resources Department and its relationship to the line organizations is~~  
5 ~~shown in an abbreviated organizational chart in Figure H 1. This chart also shows departments~~  
6 ~~with key responsibilities for waste management and emergency response.~~

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

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

- 10 • Analysis
- 11 • Design
- 12 • Development
- 13 • Implementation
- 14 • Evaluation

15 In “analysis,” technical training and line management identify job performance requirements.  
16 These requirements are derived by studying job duty areas, related tasks, and required skills and  
17 knowledge. These derived skills and knowledge, in turn, form the blueprint for the “design”  
18 phase. In “design” these requirements are translated into learning objectives, performance  
19 standards, and test items. In “development” the products of design are incorporated into new  
20 training programs or, if appropriate, incorporated into revisions of existing programs. Products  
21 of development are lesson plans, qualification cards, student materials, and examinations.  
22 Implementation of these programs then occurs. This may be through classroom instruction, on-  
23 the-job-training, self-paced study, or any combination of the three. “Evaluation” is the final  
24 phase of the SAT process. Evaluation uses feedback derived from several sources to improve or  
25 enhance the training. The WIPP utilizes extensive guidance provided within the DOE  
26 Handbook, “Training Program Handbook: A Systematic Approach to Training (DOE-HDBK-  
27 1078-94),” to direct all program analysis, design, development, implementation, or evaluation.  
28 Further details of these processes may be derived by reviewing this manual.

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

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

1       • Classroom Instruction

2           Objectives

3           Lesson Plans

4           Student Materials

5           Examinations

6       • On-the-Job Training

7           Qualification Cards

8       Technical training materials are approved by the Technical Training Manager and the cognizant  
9       line manager.

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

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

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

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

32       To ensure the safe and efficient operation of the WIPP facility, certain positions require formal  
33       qualification. Department managers identify these positions based upon safety, complexity, and  
34       involvement with hazardous waste handling operations. A document known as a “qualification  
35       card” is prepared to identify required training for each designated position. In the case of  
36       equipment and system/procedure qualification, a “qualification card” is prepared that specifies  
37       the required knowledge and practical skills needed in such areas as equipment maintenance and

1 safety. Individual participation in the qualification card system is varied and is dependent on an  
2 incumbent's specific job duties. A complete listing of active qualifications, as they apply to any  
3 individual position, may be determined by review of the WIPP Training Database. The list of  
4 active WIPP Qualification cards is maintained at the WIPP facility.

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

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

#### 25 H-1a Job Title/Job Description

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

1 that are considered to be critical from the standpoint of hazardous waste management or  
2 emergency response. These include the following positions:

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

#### 10 H-1b Training Content, Frequency, and Techniques

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

#### 18 H-1b(1) Training Content

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

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

1 This training is provided in GET-19X/GET-20X<sup>1</sup> 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  
8 course will provide job specific training required to safely receive, transfer, or handle waste at  
9 the WIPP facility. Review and update of HWW-101 topics is provided annually in the  
10 Hazardous Waste 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 Renewal Application Appendix 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.

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<sup>1</sup> The "X" in the course number is adjusted to reflect 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 and the course number is adjusted to reflect the current year.

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

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

### 13 H-1c Training Manager

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

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

### 23 H-1d Relevance of Training to Job Position

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

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

1 Beyond these core courses, training is designed and implemented relevant to the specific job  
2 functions being performed. For example, employees who operate key pieces of equipment  
3 necessary to manage contact-handled (**CH**) or remote-handled (**RH**) TRU mixed waste (such as  
4 forklifts, hoists, bridge cranes, cask transfer cars, etc.) must be trained to operate and inspect  
5 equipment and to recognize maintenance problems before a specific job function is performed.  
6 These employees must receive on-the-job training and demonstrate the ability to operate the  
7 equipment, as appropriate, before being qualified. This process is controlled and documented by  
8 the qualification process described in Section H-1. A complete listing of active qualification  
9 cards, along with descriptions of training courses, are on file at the WIPP facility. Summaries of  
10 qualification cards and other job specific training courses are included in Renewal Application  
11 Appendix H2. Waste handling personnel performing CH or RH TRU mixed waste handling  
12 tasks will be qualified to the applicable specific equipment or system qualification card on file at  
13 the WIPP facility.

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

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

#### 30 H-1e Training for Emergency Response

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

1 The WIPP facility emergency response organization is capable of providing emergency response  
2 services both above ground and underground. The Emergency Response Team (**ERT**), under the  
3 supervision of the Emergency Services Technician, has primary responsibility for above ground  
4 emergency response activities, and the First Line Initial Response Team (**FLIRT**) and the Mine  
5 Rescue Team (**MRT**) are responsible for underground emergency response activities. The  
6 responsibilities of these units are described in the WIPP RCRA Contingency Plan, Renewal  
7 Application Chapter F. Members of these teams are volunteers from the WIPP organization.  
8 These teams receive thorough emergency response training before they are called upon to  
9 perform in real emergencies. This training includes firefighting elements, such as fire behavior,  
10 ladders, fire hose, fire streams, and ventilation. The FLIRT includes current qualification for  
11 unescorted underground access, National Fire Protection Association (**NFPA**) 600 Industrial Fire  
12 Brigades requirements, and additional qualifications pertaining to the team. The MRT training  
13 includes current qualification for unescorted underground access, at least one year of  
14 underground work, Mine Safety and Health Administration requirements for medical and mine  
15 rescue, and additional qualifications pertaining to the team. The ERT training includes NFPA  
16 600 Industrial Fire Brigade requirements, and additional training pertaining to the team. In  
17 addition, all teams receive lifesaving elements, such as rescue, cardiopulmonary resuscitation  
18 and first aid, and other specific elements, such as self-contained breathing apparatus. A list of  
19 required training for these positions is included in each job position description in Renewal  
20 Application Appendix H1.

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

27 Hazardous waste handling and emergency response personnel receive training that ensures their  
28 familiarity with emergency procedures, emergency equipment, and emergency systems  
29 including:

- 30 • Procedures for using and inspecting facility emergency and monitoring equipment
- 31 • Repairing and replacing facility emergency and monitoring equipment (Radiological  
32 Control (RADCON) only)
- 33 • Communications and alarm systems
- 34 • Response to fires or explosions
- 35 • Shutdown of operations.

36 Course outlines for emergency response training courses are provided in Renewal Application  
37 Appendix H2.

38 The RCRA Emergency Coordinator receives training relevant to the RCRA Contingency Plan,  
39 Renewal Application Chapter F, and must be familiar with the contents of the RCRA  
40 Contingency Plan prior to serving as RCRA Emergency Coordinator. Documentation of this

1 training is maintained in the RCRA Emergency Coordinator's training file. All individuals  
2 qualified to serve as RCRA Emergency Coordinators are required to complete Contingency Plan  
3 training (SAF-645). RCRA Emergency Coordinators are notified of changes to the contingency  
4 plan by a document change notice, which is distributed weekly. This notice lists all of the  
5 controlled documents that have been changed during the week. Office wardens receive Office  
6 Warden Training (SAF-632) and are required to take an annual refresher. In addition, the  
7 training requirements of the Central Monitoring Room (**CMR**) operator are included in Renewal  
8 Application Appendix H1. The CMR operator is listed in Renewal Application Chapter F as an  
9 emergency response related position.

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

#### 14 H-2 Implementation of Training Program

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

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

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**FIGURES**

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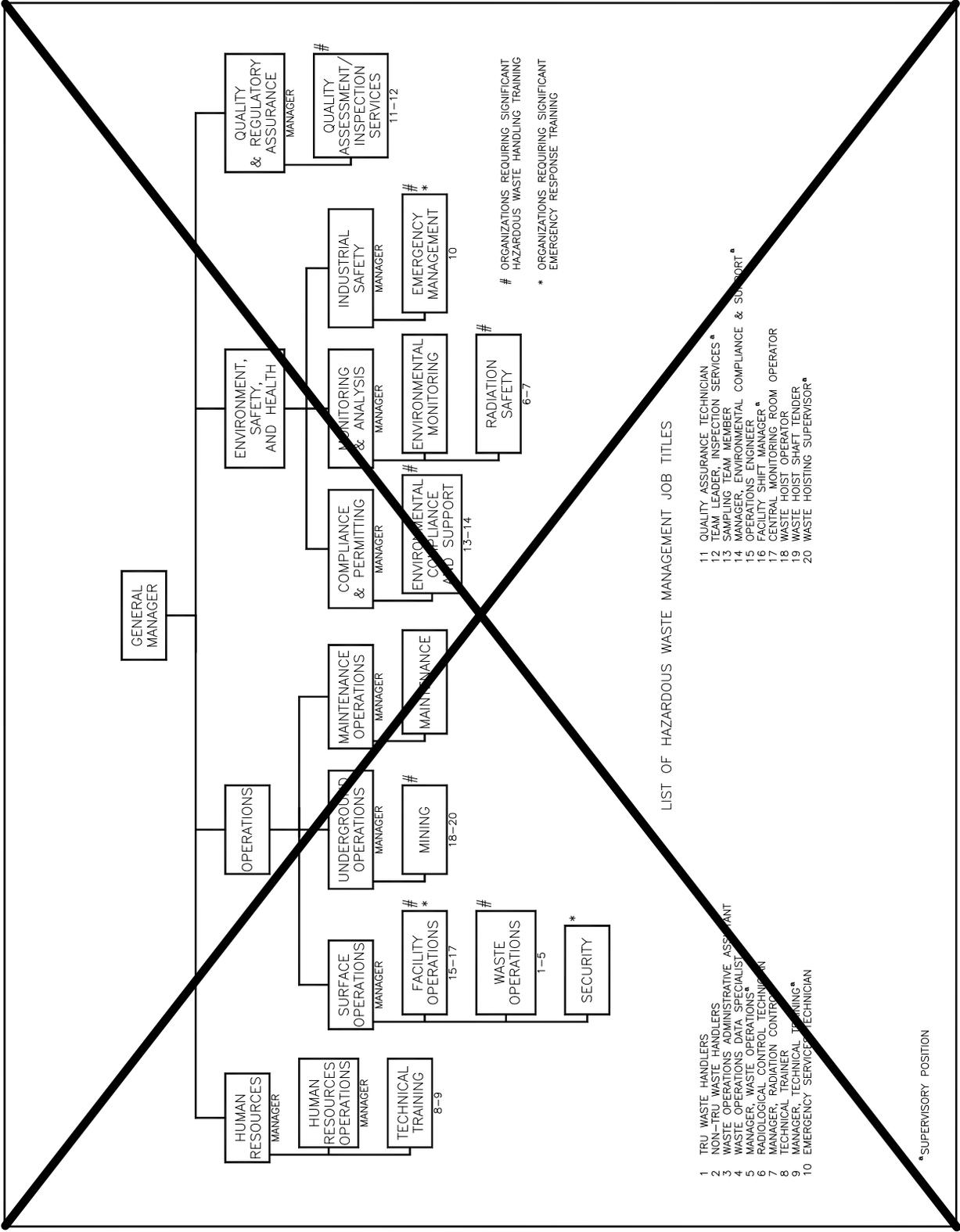


Figure H-1  
 Organizational Location of Training, Waste Handling, and Emergency Response Functions