

Barclays Official California Code of Regulations
Title 19. Public Safety
Division 2. Office of Emergency Services
Chapter 2. Emergencies and Major Disasters
Subchapter 2. Hazardous Substances Emergency Response Training
This database is current through 1/18/08, Register 2008, No. 3

§2510. Definitions

(a) “Authorized Representative”. Any person, or group of people, authorized in writing by the Chief of the Hazardous Materials Section of CSTI to: conduct specific tasks related to the administration or delivery of training activities that are part of the California Hazardous Substances Incident Response Training and Education Program; conduct audits under the provisions of this program; or perform other specific tasks as directed by the Chief of the Hazardous Materials Section.

(b) “CSTI” refers to the “California Specialized Training Institute”, Training Division of the Governors Office of Emergency Services.

(c) “Certified Class” A class that meets the requirements of the regulations regarding the California Hazardous Substances Incident Response Training and Education Program (Title 19, California Code of Regulations, Division 2, Chapter 1, Sub-Chapter 2, Sections 2510-2560).

(d) “Course Manager”. The individual California State Certified Hazardous Materials Instructor responsible for ensuring that a certified course meets the requirements of these regulations.

(e) “Current Certification” means written documentation (Certificate, letter, spread sheet or similar writings) which show that the named individual has completed a specific course of study on a specific date, and the time that has elapsed since the completion of that course of study is equal to or less than one year (in the case of training under Title 8 CCR 5192(q)(6)), or as defined by the employer.

(f) “Field Training Program” refers to the California Hazardous Substances Incident Response Training and Education Program as defined in section 8574.20 of the California Government Code.

(g) “Instructor”. An individual person who instructs a portion of a certified course, assists with an exercise in a certified course or performs other acts or tasks in support of the instruction of a certified class.

(h) “Outreach” is a colloquial term applied to individuals who are certified by CSTI as instructors, but who are not CSTI employees or under CSTI contract. An outreach instructor is approved to teach “Certified Class(s)”, as listed under Title 19 CCR s 2520. The Outreach program is designed to take selected CSTI resident classes out to the local jurisdiction through a train-the-trainer program. CSTI develops the program, provides instructor training and places the course training requirements into regulation (Title 19 CCR 2520-2560). CSTI certified instructors from various jurisdictions, agencies, industry and groups are provided with a student manual, teaching materials, certified examination and handouts to reproduce as needed during the C.S.T.I. Instructor Certification Course.

(i) “Terminal Objectives” (also known as Terminal Learning Objectives) are the main objectives of the lesson or section. They describe exactly what the student must be capable of performing under the stated conditions and to the prescribed standard(s), upon completion of the lesson.

(j) “WMD” Weapons of Mass Destruction: As used in these regulations and CSTI WMD courses, the term WMD is any potential or actual use of a nuclear, biological or chemical agent, as well as any explosive or incendiary device designed to intentionally kill or harm people.

Note: Authority cited: Section 8574.20(a), Government Code. Reference: Hazardous Substances Emergency Response Training, Section 8574.20(b), Government Code.

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§2520. Student Certification Curriculum.

(a) Haz Mat Emergency Response - First Responder Awareness Level.

(1) Certified curriculum for First Responder Awareness Level shall include all of the following course objectives:

(A) Student shall define the term “hazardous materials”; identify how hazardous materials can harm people, the environment and property; and state the role of the First Responder at the Awareness level as defined by Title 8 California Code of Regulations s192(q)(6)(A).

(B) Student shall recognize a Haz Mat incident through basic clues, warning signs, placards, labels, shipping papers, and material safety data sheets; identify, from a safe distance, the hazardous substance(s) present at the incident; understand the need for a positive safety attitude; and, describe a safe approach to a Haz Mat incident.

(C) Student shall describe first responder awareness actions, understanding the need for responder safety, isolation of the incident scene, the need for additional resources and making required notifications.

(D) Student shall identify the purpose and need to safely initiate command; cite basic identification and assessment techniques; demonstrate the use of the Department of Transportation North American Emergency Response Guidebook (current DOT NAERG) for basic action planning.

(2) Certified curriculum for First Responder Awareness Level shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for First Responder Awareness Course shall be a minimum of 4 hours in length.

(4) Certified curriculum for First Responder Awareness Course shall include the following training exercise:

(A) Participation in a table-top exercise including successful completion of the following objectives:

- (i) Determine if a hazardous material exists and what notifications are necessary;
- (ii) Identify safety techniques, isolation methods, and agencies and resources needed;
- (iii) Conduct safe identification and assessment using the current NA ERG; and,
- (iv) Identify essential information to give to the Incident Commander.

(5) Certified curriculum for First Responder Awareness Course shall include the following evaluation method:

(A) Completion of a CSTI certified First Responder Awareness written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the First Responder Awareness Course shall include successful completion of a certified course as referenced in section 2520(a) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of 4 hours, accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in section 2520 (a).

(b) Haz Mat Emergency Response - First Responder Operations Level.

(1) Certified curriculum for First Responder Operations Level shall include all of the course objectives in Section 2520(a)(1) and all of the following course objectives:

(A) Student shall state the role of the First Responder at the Operations level as defined by Title 8 California Code of Regulations §5192(q)(6)(B).

(B) Student shall define basic terms used in emergency responses to releases of hazardous materials.

(C) Student shall describe basic first responder operations initial actions.

(D) Student shall explain the purpose, need and benefits, of scene management; describe the basic implementation of the Incident Command System (ICS) to manage a Haz Mat incident; and, demonstrate proper information flow from First Responder to Incident Commander at an incident command post.

(E) Student shall describe identification and assessment techniques and demonstrate the use of the current Department of Transportation North American Emergency Response Guidebook for basic action planning.

(F) Student shall explain the need for, types, selection criteria and limits of protective equipment commonly used in Haz Mat incidents.

(G) Student shall describe the value, methods and limitations of stabilizing the Haz Mat incident through safe containment; and, describe the proper protective action and rescue options available to first responders, within their capabilities and resources.

(H) Student shall identify the need for the appropriate decontamination of the victims, emergency response personnel and equipment, in order to avoid additional contamination; and, describe proper disposal and documentation procedures during a Haz Mat response.

(I) Student shall identify the need and method to communicate and coordinate with typical agencies from all levels of government having authorized activities dealing with a Haz Mat event, citing those agencies, their roles/responsibilities and capabilities.

(J) Student shall identify the local contingency plan to follow in his/her jurisdiction when dealing with a Haz Mat incident; and to describe the purpose, value, components, and limits of both pre-event and event-specific planning.

(K) Student shall describe the health effects that Haz Mats present to the first responder's life safety.

(L) Student shall describe a process for a safe and competent response to a Haz Mat incident, including explanation of the "risk vs. gain" concept.

(M) Student shall demonstrate proper and safe first-responder actions in a simulated Haz Mat incident.

(N) Student shall identify the legal role and rights of the media at a Haz Mat incident; describe the media capabilities that may aid in the incident response; and, cite basic Haz Mat legal aspects.

(2) Certified Curriculum for First Responder Operations Level shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for First Responder Operations Course shall be a minimum of 16 hours in length if the class participants have not had First Responder Awareness training meeting the minimum terminal objectives specified in Title 19 CCR 2520(a) and Title 8, California Code of Regulations, Section 5192(q). If all of the class participants have had such training and present proof of current certification to the Course Manager then the minimum hours for a Certified Course may be 12 hours. A Certified Course 12 hours in length shall meet only the course objectives of this Section and may delete the course objectives in Section 2520(a)(1).

(4) Certified curriculum for First Responder Operations Course shall include the following training exercises:

(A) Demonstrate proper use of the current Department of Transportation North American Emergency Response Guide Book to include the following:

(i) Given ten or more United Nations four digit numbers and or chemical names, participants will identify guide number including primary hazard, basic actions, and isolation and protective action distances as needed.

(B) Participation in a simulated field Haz Mat exercise including successful completion of the following objectives:

(i) Demonstrate proper safety, isolation and notifications for a simulated Haz Mat incident;

(ii) Based on a simulated Haz Mat release, demonstrate the basic identification process using the current DOT guidebook;

(iii) Based on an identification and hazard assessment process, identify the proper safe containment and protective action options; and,

(iv) Identify essential information to be given by the First Responder to the Incident Commander.

(5) Certified curriculum for First Responder Operations Course shall include the following evaluation method:

(A) Completion of a CSTI certified First Responder Operations written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the First Responder Operations Course shall include successful completion of a certified course as referenced in section 2520(b) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of 16 hours, except as noted in Paragraph (3) of this Section, accomplish all objectives, participate in training exercises and complete the evaluation method at the 70% standard as referenced in section 2520(b).

(c) Haz Mat Emergency Response - Incident Commander.

(1) Certified curriculum for Incident Commander Level shall include all of the course objectives in Section 2520(a)(1), Section 2520(b)(1) and all of the following course objectives except as noted in paragraph (3) of this Section:

(A) Student shall state the role of the Incident Commander (IC) as defined by applicable OSHA regulations.

(B) Student shall demonstrate the ability to collect and interpret hazard and response information from sources such as printed reference material, computer databases and other technical resources.

(C) Student shall demonstrate the ability to write strategic incident objectives for a simulated emergency response to a release of hazardous materials.

(D) Student shall explain the purpose, need, and elements of command/scene management; and, demonstrate capability to implement ICS.

(E) Student shall explain identification and hazard assessment techniques to aid the IC in action planning for a Haz Mat incident.

(F) Student shall explain the hazards, risks and limits of protective equipment commonly used in Haz Mat incidents; and, cite the role of the Incident Commander regarding the selection and use of personal protective equipment.

(G) Student shall identify the IC role in selecting safe containment and control methods to stabilize a hazardous materials incident.

(H) Student shall describe two primary Haz Mat protective action options, identify factors to evaluate in selecting a protective action option and cite their practical application.

(I) Student shall describe steps to bring the incident to final closure after stabilization, providing for proper decontamination and cleanup; and cite the role of the Incident Commander in decontamination.

(J) Student shall cite basic Haz Mat disposal requirements and cite funding sources with available to the IC.

(K) Student shall identify the need for documentation at Haz Mat incidents; and demonstrate ability to properly complete pertinent reports.

(L) Student shall identify government and private sector resources available to assist in an emergency response to a release of hazardous materials and state their jurisdiction, authority and capabilities.

(M) Student shall understand their own local pre-event Haz Mat plan; how to implement the management system used in that plan; be aware of the state plan; and describe the role of the federal regional response teams.

(N) Student shall explain the role of IC regarding response personnel's safety.

(O) Student shall describe a process for the management of a safe and competent response to a Haz Mat incident, including explanation of the risk vs. gain concept.

(P) Student shall identify the legal role and rights of the media in a Haz Mat incident and understand media capabilities to aid the IC.

(Q) Student shall identify the need for investigations of releases of hazardous materials and the role of the Incident Commander in those investigations.

(R) Student shall explain value, types, and limits of exercises and critiques.

(S) Student shall state the purpose of and the criteria for the activation of an Emergency Operation Center and cite how it is a resource to aid in managing a Haz Mat disaster.

(T) Student shall cite current Haz Mat laws and potential legal liabilities pertinent to the IC's employer.

(2) Certified curriculum for Incident Commander Level shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for an Incident Commander Course shall be a minimum of 32 hours in length if the class participants have not had First Responder Operations training meeting the minimum terminal objectives specified in Title 19 CCR 2520(b) and Title 8, California Code of Regulations, Section 5192(q)(6)(B). If all of the class participants have had such training and present proof of current certification to the Course Manager then the minimum hours for a Certified Course may be 16 hours. A Certified Course 16 hours in length shall meet only the course objectives of this Section and may delete the course objectives in Section 2520(a)(1) and Section 2520(b)(1) and the training exercise in paragraph (4)(A) of this Section.

(4) Certified curriculum for Incident Commander Course shall include the following training exercises:

(A) Demonstrate proper use of the current Department of Transportation North American Emergency Response Guide Book to include the following:

(i) Given ten or more United Nations four-digit numbers and or chemical names, participants will identify guide number, including primary hazard, basic actions, and isolation and protective action distances as needed.

(B) Participation in a tabletop exercise or simulated field functional Haz Mat exercise including successful completion of the following objectives:

(i) Demonstrate the ability to assume ICS command and general staff positions, set up a unified command post, and establish communication and coordination with all response agencies during a simulated Haz Mat incident;

(ii) Based on a simulated Haz Mat incident, manage a complete identification and hazard assessment process;

(iii) Based on a complete identification and hazard assessment process, write an incident action-plan leading to the mitigation of a simulated Haz Mat incident; and,

(iv) Demonstrate the ability of command to ensure the safety of all responders by completing an ICS Form 208 HM, Revised 3/98, (Site Safety and Control Plan).

(5) Certified curriculum for Incident Commander Course shall include the following evaluation method:

(A) Completion of a CSTI certified IC written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Incident Commander Course shall include successful completion of a certified course as referenced in section 2520(c) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of 32 hours (or 16 hours for a class meeting the requirements of paragraph (3) of this Section), accomplish all objectives, participate in training exercises (except as noted in paragraph (3) of this Section) and complete the evaluation method at the 70% standard as referenced in section 2520 (c).

(d) Hazardous Materials Emergency Response - Executive Management.

(1) Certified curriculum for Hazardous Materials Emergency Response - Executive Management Course shall include all of the following course objectives:

(A) Student shall understand the current Haz Mat problem, compare the various levels of Haz Mat responders, and identify the role of Executive Manager in a Haz Mat day-to-day emergency and disaster response.

(B) Student shall grasp an awareness of laws pertaining to, and liability incurred by, government response personnel, Executive Managers, and the jurisdiction itself, when planning for, and responding to, a Haz Mat emergency/disaster.

(C) Student shall identify the essential components of 29 CFR 1910.120 and Title 8, CCR section 5192 as they pertain to planning, response, training and safety requirements for government agencies responding to a Haz Mat emergency/disaster.

(D) Student shall understand need to communicate and coordinate with any agency having authorized activities dealing with a Haz Mat incident, recognizing agencies' essential roles, needs, and limits; and, describe the purpose, essential components, value and limits of Haz Mat pre-event and event-specific plans.

(E) Student shall understand the needs of agency personnel providing the operational response to a field Haz Mat emergency, and describe the responsibilities of management for the safety of those personnel, including regulations requiring specified safety standards for Haz Mat responders.

(F) Student shall identify the Haz Mat emergency responders' operational actions and limits, explaining required notifications, resources, and mutual aid concepts while responding to, and managing, a Haz Mat emergency/disaster.

(G) Student shall describe the purpose and need to safely initiate command, and identify need and resources for identification and assessment of Haz Mat, so as to initiate action to mitigate the Haz Mat emergency/disaster.

(H) Student shall explain the need for, types and limits of protective equipment commonly used in Haz Mat emergencies, identify methods to stabilize the incident through safe containment, and describe primary Haz Mat protective action options.

(I) Student shall describe the legal role and need of the media at a Haz Mat incident, and understand media capabilities and limitations to aid in the response.

(J) Student shall understand need and components of a Haz Mat scene management system, and identify use of ICS to assume command and general staff positions to manage the incident.

(K) Student shall understand value and need for proper decontamination and cleanup including issues for contracting with cleanup companies.

(L) Student shall grasp an awareness of Haz Mat disposal requirements and funding sources with potential impact to the Executive Manager.

(M) Student shall identify the need for documentation at Haz Mat incident, and essential components of a Haz Mat report.

(N) Student shall describe the purpose and activation of an EOC and identify the common ICS positions that may report to the EOC during a Haz Mat disaster response.

(O) Student shall explain value, types, and limits of training, exercises and critiques.

(P) Student shall identify need and steps for investigations leading to possible prosecution of the responsible party of the Haz Mat incident.

(Q) Student shall describe the need and possible strategies for mitigation of, and recovery from, a Haz Mat emergency/disaster.

(2) Certified curriculum for Hazardous Materials Emergency Response - Executive Management Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response - Executive Manager Course shall be a minimum of 8 hours in length.

(4) Certified curriculum for Hazardous Materials Executive Emergency Response - Manager Course shall include all of the following training exercises:

(A) Participation in a simulated tabletop exercise including the successful completion of the following objectives:

(i) Identify criteria to activate the EOC;

(ii) Identify staffing by ICS titles and responsibilities for those required to report to the EOC;

(iii) Identify the use of single or unified command in the EOC.

(B) Completion of a draft Haz Mat policy and/or report regarding one of the following subject areas:

(i) Use of scene management system at a Haz Mat incident;

(ii) Safety requirements at a Haz Mat incident;

(iii) Planning requirements before and during a Haz Mat incident;

(iv) Training and exercising requirements for a Haz Mat incident;

(v) Mitigation program for Haz Mat incident;

(vi) Public information program for Haz Mat incident;

(vii) Recovery program for Haz Mat incident; and,

(viii) EOC activation, set-up, and staffing policy.

(5) Certification for participants in the Hazardous Materials Emergency Response - Executive Management Course shall include successful completion of a certified course as referenced in section 2520(d) as delivered by a CSTI certified instructor as referenced in section 2530.

Student shall meet a minimum attendance of eight hours, accomplish all objectives, and participate in training exercises as referenced in section 2520(d).

(e) Hazardous Materials Emergency Response - Hazardous Materials Investigations.

(1) Certified curriculum for Hazardous Materials Investigations Course shall include all of the following course objectives:

(A) Student shall recognize the need for hazardous materials investigations and develop procedures for proper identification, containment, evidence gathering and preliminary investigation report completion.

(B) Student shall understand proper state and federal laws and regulations dealing specifically with hazardous materials investigations.

(C) Student shall identify safety considerations and determine the characteristics of a hazardous materials incident and the possibility of a violation of a law or regulation.

(D) Student shall demonstrate how to safely and competently respond to a hazardous materials incident and conduct an investigation within the limitations of available resources and capabilities.

(E) Student shall explain the need for, types, selection criteria and limits of protective equipment commonly used in hazardous materials incidents.

(F) Student shall recognize the need for and the processes involved in obtaining and serving search and inspection warrants.

(G) Student shall understand the reason for and methods for comprehensive documentation of a hazardous materials incident investigation.

(H) Student shall identify the need to communicate and the appropriate methods necessary to coordinate communication with any and all agencies having authority at hazardous materials incidents, and shall further insure that each agency's role and capability is recognized.

(I) Student shall develop techniques for interviewing witnesses and interrogating suspects at a hazardous materials incident.

(J) Student shall demonstrate proper methods of sampling, evidence collection, and preservation for chemicals and wastes at a hazardous materials incident.

(K) Student shall demonstrate proper safe and competent response to a simulated hazardous materials crime scene.

(L) Student shall demonstrate proper preliminary investigation report preparation by submitting documentation and evidence to the course coordinator for approval.

(M) Student shall identify the role and assignment of investigators within the Incident Command System.

(N) Student shall recognize specific characteristics and considerations associated with hazardous materials investigations at fixed facilities.

(O) Student shall recognize specific characteristics and considerations associated with hazardous materials investigations at transportation incidents.

(P) Student shall understand the importance of effectively working with the media.

(Q) Student shall recognize major information sources useful to investigators in conducting follow-up hazardous materials investigations.

(2) Certified curriculum for the Hazardous Materials Investigations Course shall include all of the current course material listed in 2540(t).

(3) Certified curriculum for Hazardous Materials Investigations Course shall be 40 hours in length.

(4) Certified curriculum for Hazardous Investigations Course shall include the following training exercises:

(A) Demonstrate proper safe and competent response to a simulated hazardous materials incident or crime scene; and,

(B) Demonstrate proper preparation of a preliminary investigation report which will be submitted to the course coordinator for review, comment and approval.

(5) Certification for participants in the Hazardous Materials Investigations Course shall include successful completion of a certified course as referenced in section 2520(e) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall accomplish all objectives, and participate in training exercises as referenced in section 2520(e). Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4).

(f) Hazardous Materials Emergency Response - Environmental Monitoring.

(1) Certified curriculum for Hazardous Materials Emergency Response Environmental Monitoring Course shall include all of the following course objectives:

- (A) Student shall understand the basics of Haz Mat sampling, including method selection criteria, purpose and objective, types of samples, and development of a sampling plan.
- (B) Student shall identify analytical standards used for air and soil/water samples.
- (C) Student shall identify the levels of protection of monitoring personnel.
- (D) Student shall identify basic air surveillance and soil/water equipment used during a Haz Mat incident.
- (E) Student shall understand the documentation and chain-of-custody procedures at a Haz Mat sampling site.
- (F) Students shall identify packaging, marking, labeling and shipping of Haz Mat samples.
- (G) Student shall identify legal considerations dealing with the sampling procedures.
- (H) Student shall identify quality control considerations necessary for air surveillance and soil/water samples.

(2) Certified curriculum for the Hazardous Materials Emergency Response Environmental Monitoring Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Environmental Monitoring Course shall be a minimum of 40 hours in length.

(4) Certified curriculum for Hazardous Materials Emergency Response Environmental Monitoring Course shall include the following training exercise:

(A) Demonstrate proper use to the instructor of air, soil and water monitoring equipment to include sorbent traps, aerosol filters, organic vapor analyzer, photoionization detector, gas chromatographs and infrared spectrometer.

(5) Certified curriculum for Hazardous Materials Emergency Response Environmental Monitoring Course shall include the following evaluation method:

(A) Completion of a CSTI certified Environmental Monitoring written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Hazardous Materials Emergency Response Environmental Monitoring Course shall include successful completion of a certified course as referenced in section 2520(f) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4), accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in section 2520(f).

(g) Hazardous Materials Emergency Response - Incident At Ports.

(1) Certified curriculum for Hazardous Materials Emergency Response Incident at Ports Course shall include all of the following course objectives:

(A) Student shall compare and contrast the differences in port activities with other Haz Mat activity sources.

(B) Student shall identify the organizations and responsibilities of various port authorities.

(C) Student shall identify the unique agencies or special units with the appropriate authorities involved with port activities including, but not limited to, the U.S. Coast Guard and the Office of Oil Spill Prevention and Response.

(D) Student shall determine the various types of vessels commonly found in ports and the unique characteristics of their construction and operation.

(E) Student shall compare the unique response considerations with conventional response considerations when dealing with port incidents.

(F) Student shall be able to write, revise, and review specific contingency plans dealing with port emergency operations in Haz Mat incidents including, but not limited to, the National Contingency Plan and applicable Area Contingency Plans.

(2) Certified curriculum for the Hazardous Materials Emergency Response Incident at Ports Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Incident at Ports Course shall be a minimum of 8 hours in length.

(4) Certified curriculum for Hazardous Materials Incident at Ports Course shall include the following training exercise:

(A) Participation in a Haz Mat table-top exercise including successful completion of the following objectives:

(i) Demonstrate proper safety, isolation and notifications for a simulated table-top Haz Mat incident at a port;

(ii) Based on simulated Haz Mat release, demonstrate a basic identification process;

(iii) Based on an identification and hazard assessment process, identify the proper safe containment and protective action options; and,

(iv) Identify essential information to be given by the First Responder to the Incident Commander.

(5) Certified curriculum for Hazardous Materials Incident at Ports Course shall include the following evaluation method:

(A) Completion of a CSTI certified Haz Mat Incidents At Ports written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Hazardous Materials Incident at Ports Course shall include successful completion of a certified course as referenced in Section 2520(g) as delivered by a CSTI certified instructor as referenced in Section 2530. Student shall meet a minimum attendance of 8 hours, accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in Section 2520(g).

(h) Hazardous Materials Emergency Response - Instructor Certification.

(1) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification Course shall include all of the following course objectives:

(A) Student shall demonstrate an understanding of the background and objectives of the California Hazardous Substances Incident Response Training and Education Program as administered by the Office of Emergency Services, California Specialized Training Institute, as referenced in California Government Code section 8574.20.

(B) The student shall recognize the need for competent instructors to deliver standardized training to hazardous materials responders in the field.

(C) Student shall identify practical techniques for trainers to better facilitate adult learning.

(D) Student shall explain the importance of performance objectives, the need for instructor discipline to accomplish performance objectives, and the value of a motivating delivery technique in achieving performance objectives.

(E) Student shall understand the certified curriculum for the certified course(s), as referenced in section 2520 in which the student is seeking instructor certification.

(F) Student shall understand the importance of presenting a positive first impression.

(G) Student shall understand the essential details in preparing for a class.

(H) Student shall demonstrate an awareness of the Haz Mat audio-visual materials available to support the certified course(s), as referenced in Section 2520 in which the student is seeking instructor certification.

(I) Student shall explain the four-step method of lesson plan development.

(J) Student shall identify effective communication methods and techniques.

(K) Student shall identify the various types of training aids, understand basic techniques for using boards, overhead transparencies and flip charts, and develop at least one training aid for use in the instructional simulation.

(L) Student shall cite the essential elements involved in delivering the class.

(M) Student shall demonstrate an awareness of the requirements to design and deliver successful practical activities that will enhance the trainer's instructional delivery.

(N) Student shall demonstrate the ability to competently instruct at least a 10-minute portion of one block of instruction from the certified course(s), as referenced in Section 2520 in which the student is seeking instructor certification before a peer group and video camera for critique.

(O) Student shall positively critique and compare instructional methods and techniques of the blocks of instruction delivered by other students in the class.

(P) Student shall recognize the need and techniques for testing, evaluating and closing the class.

(Q) Student shall demonstrate an understanding of the California Hazardous Substances Incident Response Training and Education Program requirements, minimum standards, and administrative policies and procedures for state certification as referenced in sections 2510-2560.

(R) Student shall understand proper completion of administrative forms for requesting, delivering, documenting and certifying hazardous materials courses as referenced in section 2540.

(S) Students who will teach any Technician Specialists program course shall understand the essential teaching points, required materials/exercise training aids, and safety issues associated with the Technician Specialists module/course they will teach.

(T) Students shall describe the safety issues associated with providing hazardous materials emergency response training that demonstrates the comprehension of the Safety Policy in Section 2540(k) of these regulations.

(2) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification Course shall be a minimum of 32 hours in length.

(4) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification shall include the following instructional simulations:

(A) First Impressions Presentation by Student:

(i) Student shall give a three to five-minute presentation on any subject dealing with Haz Mat response in order for peer group to evaluate first impressions.

(B) Instructional Delivery:

(i) Student shall deliver a minimum ten-minute portion of a certified curriculum, as referenced in Section 2520 in which the student is seeking instructor certification before a peer group and video camera for critique.

(5) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification Course shall include the following evaluation method:

(A) Completion of a CSTI certified Haz Mat Instructor Certification written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Hazardous Materials Emergency Response Instructor Certification Course shall include all of the following:

(A) Successful completion of the certified course(s), as referenced in section 2520 in which the student is seeking instructor certification;

(B) Successful completion of the certified course as referenced in section 2520(h) and as coordinated by a CSTI Haz Mat section faculty member; and,

(C) Meet a minimum attendance of 32 hours, accomplish all course objectives, complete the evaluation method at the 70% standard and participate in the instructional simulation as referenced in section 2520(h).

(i) Hazardous Materials Emergency Response - Instructor Certification For Trainers.

(1) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification For Trainers Course shall include Items (A) through (L) and (O) through (T) (incorporated by reference) from section 2520 (h) for Hazardous Materials Emergency Response - Instructor Certification and shall include all of the following:

(A) Student shall demonstrate the ability to competently instruct at least a five-minute portion of one block of instruction from the certified course(s), as referenced in Section 2520 in which the student is seeking instructor certification before a peer group.

(B) Students who will teach any Technician Specialists program course shall understand the essential teaching points, required materials/exercise training aids, and safety issues associated with the Technician Specialists module/course they will teach.

(C) Students shall describe the safety issues associated with providing hazardous materials emergency response training that demonstrates the comprehension of the Safety Policy in Section 2540(k) of these regulations.

(2) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification For Trainers Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification For Trainers Course shall be a minimum of 16 hours in length.

(4) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification For Trainers Course shall include the following instructional simulation:

(A) Instructional Delivery:

(i) Student shall deliver a minimum five-minute portion of a certified curriculum, as referenced in section 2520 in which the student is seeking instructor certification before a peer group for critique.

(5) Certified curriculum for Hazardous Materials Emergency Response Instructor Certification for Trainers Course shall include the following evaluation method:

(A) Completion of a CSTI certified Haz Mat Emergency Response Instructor Certification for Trainers written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Hazardous Materials Emergency Response Instructor Certification For Trainers Course shall include all of the following:

(A) Successful completion of the certified course(s), as referenced in section 2520 in which the student is seeking instructor certification;

(B) Successful completion of the certified course as referenced in section 2520(i) as coordinated by a CSTI Haz Mat section faculty member; and,

(C) Meet a minimum attendance of 16 hours, accomplish all course objectives, complete the evaluation method at the 70% standard, and, participate in the instructional simulation as referenced in section 2520(i).

(j) Hazardous Materials Emergency Response - Instructor Recertification.

(1) Certified curriculum for Hazardous Materials Emergency Response Instructor Recertification Course shall include all of the following course objectives:

(A) Student shall be able to demonstrate an understanding of the background and objectives of the California Hazardous Substances Incident Response Training and Education Program as administered by the Office of Emergency Services, California Specialized Training Institute, as referenced in California Government Code section 8574.20.

(B) Student shall be able to understand the certified curriculum for the certified course(s), as referenced in section 2520 in which the student is seeking instructor recertification.

(C) Student shall demonstrate an awareness of the current Haz Mat audio-visual materials and reference materials available to support the certified course(s), as referenced in section 2520 in which the student is seeking instructor recertification.

(D) Student shall be able to demonstrate an understanding of the California Hazardous Substances Incident Response Training and Education Program requirements, minimum standards, and administrative policies and procedures for state certification as referenced in sections 2510-2560.

(E) Student shall be able to understand proper completion of administrative forms for requesting, delivering, documenting and certifying hazardous materials courses, as referenced in sections 2540-2550.

(2) Certified curriculum for Hazardous Materials Emergency Response Instructor Recertification Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Instructor Recertification Course shall be a minimum of 6 hours in length.

(4) Certified curriculum for Hazardous Materials Emergency Response Instructor Recertification Course shall include the following evaluation method:

(A) Completion of a CSTI certified Hazardous Materials Emergency Response Instructor Recertification written exam with a minimum passing score of 70% correct.

(5) Certification for participants in the Hazardous Materials Emergency Response Instructor Recertification Course shall include all of the following:

(A) Successful completion of the certified course(s), as referenced in section 2520 in which the student is seeking instructor recertification;

(B) Successful completion of the certified course as referenced in section 2520(h) or (i) as coordinated by a CSTI Haz Mat section faculty member;

(C) Successful completion of the certified course as referenced in section 2520(j) by a CSTI Haz Mat section faculty member; and,

(D) Meet a minimum attendance of 6 hours, accomplish all course objectives, and complete the evaluation method at the 70% standard, as referenced in section 2520(j).

**(k) Hazardous Materials Emergency Response - Technician/Specialist (1A):
Basic Chemistry.**

(1) Certified curriculum for Haz Mat Emergency Response Technician/Specialist (1A) Basic Chemistry shall include all of the following course objectives:

(A) The student shall identify the levels of haz mat response training required for certification. The student shall recognize chemical compounds in terms of general categories and classifications.

(B) The student shall define the terms “chemistry” and “matter,” identify the three states of matter, recognize the differences between pure substances and mixtures, and recognize physical and chemical properties.

(C) The student shall identify the three physical forms or states of matter, distinguish the differences between chemical and physical change, list the 6 different processes that result in a physical change in state, define “exothermic” and “endothermic,” and identify the role of catalysts and inhibitors.

(D) The student shall identify symbols, names of elements, and atomic numbers on a periodic table and determine the logical systematic order of elements.

(E) The student shall indicate the parts and regions of an atom, define the weight and charge of each atomic particle, name the four families and their outer shell electron configuration, explain the octet/duet rule and predict the type of ion formed by each family. The student shall identify the hazard of each family including reactivity and oxidation ability. The student shall also list the features of reducing agents and oxidizing agents.

(F) The student shall define bonding, recognize the different types of bonds, and determine the composition of an ionic or non-ionic compound.

(G) The student shall identify the six different types of salts and predict the hazards, recognize the general physical, chemical, health and environmental properties of salts.

(H) The student shall identify the different types of non-salts, and predict the hazards, recognize the general physical, chemical, health and environmental properties of non-salts.

(I) The student shall identify alkane, alkene, alkyne and aromatic hydrocarbons; identify the structures of hydrocarbons including isomers or aromatics.

(J) The student shall be able to identify the hydrocarbon radicals and derivatives, identify their structural formulas and list the hazards associated with each.

(K) The student shall explain the general toxicity of saturated and unsaturated hydrocarbons.

(L) The student shall define the physical parameters of vapor pressure, vapor content, vapor density, specific gravity, boiling point, flash point, polarity, and standard and normal temperature and pressure; and correctly identify the relative ranking of chemicals with respect to these physical parameters when compared to other chemicals.

(M) The student shall recognize those materials that are explosive, provide examples and define the terms "fuel," "oxidizer," "explosive" and "crystals" as they relate to explosives.

(N) The student shall identify the three states that gases are transported in and define the term "expansion ratio."

(O) The student shall describe the method for fighting explosives fires; recognize explosives by their chemical formula, structure or characteristics; list initiators of explosives; and describe the DOT divisions of explosives. The student shall also list the four categories of explosives, giving examples and characteristics of each; define and give examples of explosophores; and list several common explosives.

(P) The student shall identify those elements or compounds that are likely to be solids and identify their potential to be combustible or pyrophoric.

(Q) The student shall identify those compounds that are most likely to be oxidizers or organic peroxides based upon their chemical composition.

(R) The student shall identify the common names and formulas associated with poisons.

(S) The student shall identify those compounds that are most likely to be radioactive based upon their chemical composition.

(T) The student shall define the term "corrosivity," describe the two main division of corrosives, list the physical states that corrosives are found in and identify some of the hazards of corrosive materials.

(U) The student shall define the concepts: fire, oxidation, the fire tetrahedron, heat transfer, ignition temperature, flammable limits, and standard temperature and pressure. The student shall also be able to explain the difference between slow and fast oxidation, the effects of oxygen on the combustion process, and the factors to consider when assessing an incident for the potential of fire.

(V) The student shall list the three products of combustion, the three factors that determine heat content, and the three factors that determine vapor quantity. Additionally, the student shall describe the effect of flame on combustion, and explain the differences between the products of complete and incomplete combustion. The student shall define “backdraft” and “flashover,” and explain the conditions that lead to those events. The students shall list at least 3 of the products of incomplete combustion that are considered toxic.

(W) The student shall identify at least 3 of the multiple hazards associated with gases, describe the common characteristics of gases and shall explain how gases are detected or measured. The student shall predict the behavior of gases using the concepts of the gas laws and critical temperature and pressure. The student shall describe the 3 conditions of gas storage and list the hazards associated with each.

(X) The student shall list the multiple hazards of flammable liquids and describe the following physical properties: vapor pressure, flash point, ignition temperature, flammable range, explosive limits, specific gravity, vapor density, boiling point, and the definitions of flammable and combustible liquids. The student shall also predict the probable location of flammable atmospheres from low and high vapor pressure liquids. The student shall list the three special conditions (boil-over, slop-over and froth-over) associated with burning flammable liquids; the effects of oxidizers on flammable liquids; how solubility is determined; and the effect of molecular weight on vapor pressure, boiling point, flash point, ignition temperature and heat output.

(Y) The student shall identify the process of oxidation; list several electronegative elements; describe spontaneous combustion, pyrolysis, surface burning and hypergolic combustion; and list the three types of ignition: pilot, auto, and spontaneous. The student shall also list three elements that burn and their allotropes, and describe the flammable solids cellulose nitrate and naphthalene. The student shall list several flammable and combustible metals and their hazards.

(Z) The student shall describe the processes of oxidation and reduction, describe and provide examples of halogen gases, oxy-salts, oxy-acids, metal peroxide salts, inorganic peroxides and oxygen. Additionally, the student shall identify the peroxide functional group in organic oxidizers. Students shall also list some common uses of organic peroxides, identify them by name or formula, list the hazards and classification of organic peroxides, define maximum safe storage temperature and self-accelerating decomposition temperature and list the general hazards of organic peroxides.

(AA) The student shall describe (ionizing and non-ionizing) radiation, identify those elements that are naturally radioactive, describe each of the three types of ionizing radiation (gamma, beta and alpha) and the three types of protective measures. The student shall define the terms roentgen, RAD, REM, mREM, sieverts, becquerels, curie and half-life. The student shall be able to list the various sources of background radiation and a typical annual exposure. The student shall also identify the one time emergency response exposure, the effect of free radicals, the difference between internal and external contamination and contamination vs. exposure.

(BB) The student shall describe the difference between the strength and concentration of corrosives, including how these are measured and how they pertain to the risk posed by that corrosive. The student shall describe the reaction that occurs between acids and bases and other materials. Also, the student shall describe the processes of absorption, dilution and neutralization, including the advantages and disadvantages of each of these methods when used for mitigating corrosives spills.

(CC) The student shall describe the importance of chemical compatibility to responders, recognize the 4 types of chemical reactions (combination, decomposition, single replacement and double replacement), list the rules of solubility and use an incompatibility chart to determine the potential reaction(s) between two materials.

(2) Certified curriculum for Hazardous Materials Emergency Response Technician/Specialist (1A) Basic Chemistry shall include all of the current course material listed in Section 2540(t). Each course manager shall provide and display for the duration of the class, at least one wall-mounted "Periodic Table of The Elements" that is at least four feet by eight feet in size and visible from any part of the classroom. The course manager shall provide each student with a copy of the current version of the Department of Transportation Emergency Response Guidebook and the Department of Transportation Hazardous Materials Marking, Labeling and Placarding Guide (DOT Chart).

(3) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1A) Basic Chemistry Course shall be a minimum of 40 hours in length.

(4) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1A) Basic Chemistry Course shall include the following evaluation method:

(A) Completion of the CSTI certified Hazardous Materials Emergency Response Technician/Specialist (1A) Basic Chemistry Course shall be by written examination with a minimum passing score of 70% correct, as referenced in section 2540(e). The student shall attend 40 hours of training as defined by section 2540(j)(4).

(5) Certification for participants in the Haz Mat Emergency Response Technician/Specialist (1A) Basic Chemistry Course shall include successful completion of the certified course as referenced in 2520(k), delivered by a CSTI certified instructor as referenced in 2530. The student shall meet a minimum attendance of 40 hours, accomplish all objectives, participate in the training exercises and complete the evaluation method at the 70% standard as referenced in Section 2540.

(I) Hazardous Materials Emergency Response - Technician/Specialist (1B): Applied Chemistry.

(1) Certified curriculum for Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry shall include all of the following course objectives:

(A) The student shall describe the process of detecting contaminants in air, list the major components of a normal atmosphere, and list the types of contaminants which make an atmosphere hazardous. The student shall list the OSHA requirements for entry into a confined space, describe the process of finding unknown gases based on vapor density and interpreting results. Also, the student shall list the four uses of monitoring and the types of instruments available, including the capabilities of each. The student shall utilize a monitoring strategy to analyze unknown atmospheres including an analysis of site specific conditions.

(B) The student shall describe the principles of operation of Radiation Monitoring devices and demonstrate their use with sample sources of radioactive material.

(C) The student shall define what Combustible Gas Indicators (CGI's) are designed to detect, describe how they operate, demonstrate how to prepare the CGI for use and how to monitor an unknown atmosphere, describe how to interpret the results, and list some of the limitations associated with CGI's.

(D) The student shall define what Photoionization Detectors (PID's) are designed to detect, describe how they operate, demonstrate how to prepare the PID for use and how to monitor an unknown atmosphere, describe how to interpret the results, and list some of the limitations associated with PID's.

(E) The student shall identify what colorimetric tubes, electrochemical sensors, flame ionization detectors and infrared spectroscopy are designed to detect; describe how these various devices work; and identify some of the use considerations and limitations associated with these devices.

(F) Given at least five unknown substances, two of which are solid, and three liquids, the student shall be able to identify or classify by hazard each of the unknown substances using the “Five-Step Field Identification Method of Chemicals”, “HazCat Chemical Identification System” or another CSTI-approved method.

(G) The student shall identify safe and unsafe behaviors as they pertain to chemical handling.

(H) The student shall identify the principles and tests used in field identification kits to determine the hazards or identity of unknown chemicals.

(I) The student shall identify the types of hazard and response information available from reference manuals, hazardous materials data bases, technical information centers (i.e. CHEMTREC) and technical information specialists. The student shall explain the advantages and disadvantages of each resource. The student shall also utilize various reference sources to identify hazard and response information about various hazardous materials.

(J) The student shall describe the duties of the Technical Specialist Hazardous Materials Reference within the Incident Command System at a hazardous materials incident.

(2) Certified curriculum for Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry Course shall be a minimum of 40 hours in length.

(4) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry Course shall include the following training exercises:

(A) Participation in a “Field Identification of Unknown Solid and Liquid Chemical” exercise including successful completion of the following objectives: Using the “Five-Step Field Identification Method of Chemicals”, “HazCat Chemical Identification System” or another CSTI approved method, and given five unknown substances (two being solid and three being liquid) the student shall complete a hazardous data worksheet to include:

- (i) Classification of the substances by chemical or physical hazards;
- (ii) Determination of the proper hazard/risk potential;

(B) Participation in an Atmospheric Monitoring Exercise including successful completion of the following objectives, given five unknown atmospheres:

- (i) Use a Combustible Gas Indicator to monitor for combustible atmospheres.
- (ii) Use a Photoionization Detector (PID) to monitor for volatile organic compounds.
- (iii) Use a Colorimetric Tube to monitor for corrosive or combustible atmospheres.
- (iv) Use a Radiation meter to monitor for radioactive materials.

(5) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry Course shall include the following evaluation method:

(A) Completion of all of the CSTI certified Hazardous Materials Technician/Specialist (B) Applied Chemistry Course written exam with a minimum passing score of 70% correct as referenced in section 2530.

(B) Student to Instructor/Equipment/etc. Ratios are used in section (6) below to assure students receive an adequate level of experiential learning. See Section 2540(d)(5)(A), (B) and (i) for information on break-outs and sectional training.

(6) The following materials/training aids/equipment are required for teaching the Haz Mat Emergency Response Technician/Specialist (1B) Applied Chemistry Course:

(A)(i) Test kits for field identification of unknown chemicals (one kit for every three students);

(ii) Solid and liquid chemical samples for field identification (these should consist of, at a minimum, various flammable and combustible liquids, acids, caustics, sulfides, oxidizers, and chlorinated hydrocarbons);

(iii) Safety equipment (including, but not limited to: splash protection, eye protection, head protection, feet protection) for use by all students during the field identification exercise.

(iv) Combustible Gas Indicators (CGI), Photoionization Detectors (PID), colorimetric tubes and radiation meters in sufficient quantity to allow each student to demonstrate the use of the detectors for hazardous atmospheres. As a minimum, a ratio of one instrument (of each type) per two students is required.

(B) Printed reference material including, but not limited to (one copy per 6 students):

(i) Condensed Chemical Dictionary (Hawley's);

(ii) Quick Selection Guide to Chemical Protective Clothing (Forsberg/Mansdorf)

(iii) Handbook of Reactive Chemical Hazards (L. Bretherick) - or Rapid Guide to chemical Incompatibilities (Pohanish/Green);

(iv) CHRIS Manual (U.S. Coast Guard -- Printed or electronic);

(v) American Association of Railroads; Emergency Action Guides

(vi) Emergency Care for Hazardous Materials Exposure (Currence);

(vii) Crop Protection Handbook (Meister);

(viii) Pocket Guide to Chemical Hazards (NIOSH);

(ix) Emergency Response Guide book (DOT)

(C) Electronic reference material including, but not limited to (one computer per 3 students):

(i) CAMEO/ALOHA/MARPLOT

(ii) Chemical Reactivity Worksheet

(iii) WISER

(7) Certification for participants in the Hazardous Materials Emergency Response Technician/Specialist (1B) Applied Chemistry Course shall include successful completion of the certified course as referenced in Section 2520(l), delivered by a CSTI certified instructor as referenced in Section 2530. The student shall meet a minimum attendance of 40 hours of training, accomplish all objectives, participate in the training exercises and complete the evaluation method at the 70% standard as referenced in Section 2540.

(m) Hazardous Materials Emergency Response - Technician/Specialist (1C): Incident Considerations.

(1) Certified curriculum for Haz Mat Emergency Response Technician/Specialist (1C) Incident Considerations shall include all of the following course objectives:

(A) The student shall define toxicology, list 2 subdivisions of toxicology, and identify dose as a key concept in toxicology. The student shall also compare risk and hazard, and identify the difference between the two.

(B) The student shall identify how various meteorological factors may influence a hazardous materials incident.

(C) The student shall recognize general protective action concepts associated with hazardous materials response, with specific emphasis on evacuation and shelter-in-place options.

(D) The student shall identify the factors to be considered in selecting proper respiratory protection. Students shall describe the advantages, limitations, proper use and operational components of air purifying respirators at a hazardous materials incident.

(E) The student shall identify the three types of vapor-protective, splash-protective and support-function clothing and describe the advantages and disadvantages of each. The student shall identify the four levels of chemical protection (EPA/NIOSH) and match both the equipment required for each level and the conditions under which each level is used. The student shall explain the significance of degradation, penetration and permeation as they relate to suit selection.

(F) The student shall identify the factors to be considered and the process involved in selecting the proper chemical protective clothing, at least three indications of material degradation of chemical protective clothing, and the relative advantages and disadvantages of various cooling methods/devices.

(G) The student shall recognize basic ICS concepts as they apply to hazardous materials incidents, the general organization of the Incident Command System and some of the standard ICS forms.

(H) The student shall describe the duties of a member of the Command Staff within the Incident Command System at a hazardous materials incident.

(I) The student shall describe the duties of the Haz Mat Group Supervisor within the Incident Command System at a hazardous materials incident.

(J) The student shall list the seven basic types of toxins and describe the characteristics and behavior of each. The student shall also describe the two major determinants that affect toxicity, list the three routes of entry and describe their characteristics, and list and describe the three means the body has for dealing with toxins. The student shall describe the concept of dose-response relationships, list the factors that affect dose response values and define the terms “lethal dose (LD)”, “lethal concentration (LC)”, “no observed effect level (NOEL)”, “threshold limit value (TLV)”, “permissible exposure limit (PEL)”, “short term exposure limit (STEL)”, “immediately dangerous to life and health (IDLH)”, “maximum allowable concentration (MAC)”, “level of concern (LOC)” and emergency response planning guide (ERPG).

(K) The student shall recognize the importance of establishing control zones and identify the three control zones to be established at a hazardous materials incident.

(L) The student shall describe the duties of the Site Access Control Leader within the Incident Command System at a hazardous materials incident.

(M) The student shall describe the duties of the Entry Team Leader within the Incident Command System at a hazardous materials incident.

(N) The student shall describe the duties of the Decontamination Team Leader within the Incident Command System at a hazardous materials incident.

(O) The student shall list some physical and chemical ways in which chemicals can cause harm. Also, the student shall describe the cell as the focal point of the biochemistry of toxins and how some organs are targets to toxins, describe the field of environmental toxicology and demonstrate the awareness of the irreversibility of some environmental spills. The student shall also be able to list and describe the concepts of ozone layer depletion, bioaccumulation, biomagnification, biological oxygen demand, and chemical oxygen demand. Lastly, the student shall describe and provide examples of organophosphate and carbamate pesticides, and describe the biochemical mechanism, including the antidote, for organophosphate poisoning.

(P) The student shall identify various environmental, mechanical, physiologic and psychological stresses that personnel working in chemical protective clothing are subjected to.

(Q) The student shall describe the duties of the Safe Refuge Area Manager within the Incident Command System at a hazardous materials incident.

(R) Student shall identify the mechanisms by which heat builds up in workers operating in chemical protective clothing, and the appropriate measures to take for someone experiencing a heat related illness.

(S) Student shall identify procedures by which hazardous materials response personnel shall be medically evaluated at incidents.

(T) The student shall identify guidelines for dealing with injured or trapped persons at a hazardous materials incident.

(U) The student shall identify some of the problems and resources which must be evaluated in order to triage hazardous materials incidents.

(V) The student shall identify the various decontamination methods, the types of decontamination, factors that can affect the decon process and resources needed to set up a Contamination Reduction Corridor. The student shall also identify general guidelines for Emergency Decon, including sources for selecting appropriate decon procedures and solutions.

(W) The student shall describe the procedures for donning and doffing Self-Contained Breathing Apparatus, and describe how to properly respond to emergencies with the Self-Contained Breathing Apparatus.

(X) The student shall describe the procedures for donning and doffing Level “A” Chemical protective clothing.

(Y) Reserved for future use.

(Z) The student shall identify some of the chemicals used in illegal drug manufacturing operations and the hazards associated with drug labs. The students shall also identify several warning signs indicating the presence of a drug lab, as well as appropriate safety and tactical considerations to take at an incident scene.

(AA) The student shall demonstrate the use of grounding and bonding equipment for product transfer.

(BB) The student shall demonstrate the use of plugging and patching equipment for drums.

(CC) The student shall demonstrate the use of transfer pumps for product transfer between drums.

(DD) The student shall demonstrate the safe use of a drum hand truck.

(EE) The student shall identify some of the key components of a hazardous materials area plan.

(FF) The student shall demonstrate the safe use of a drum up-ender (manual drum lifter).

(GG) The student shall define evidence; explain the importance of chain of custody, search warrants and proper documentation; and identify important guidelines regarding the collection of specific types of evidence.

(HH) The student shall demonstrate overpacking of a 55 gallon drum by the “V-Roll” and “End Over” Techniques.

(II) The student shall demonstrate the use of plugging and patching equipment for repairing leaks on piping systems.

(JJ) The student shall demonstrate the use of plugging and patching equipment for horizontal and vertical storage tanks.

(KK) The student shall demonstrate the safe use of chemical sampling equipment for solids and liquids.

(LL) The student shall demonstrate the safe use of absorbent materials for containing a liquid spill.

(MM) The student shall demonstrate the collection of evidence at a hazardous materials incident, including the use of chain of custody forms, evidence seals, scene mapping and photography.

(NN) The student shall demonstrate the safe application of a “Chlorine Institute A Kit”.

(OO) The student shall demonstrate the safe application of a “Chlorine Institute B Kit”.

(2) Certified curriculum for Haz Mat Emergency Response Technician/Specialist (1C) Incident Considerations shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for the Hazardous Materials Emergency Response Technician/Specialist (1C) Incident Considerations Course shall be 40 hours in length. Student(s) shall attend 40 hours of training as defined by Title 19 s 2540(j)(4).

(4) Certified curriculum for Haz Mat Technician/Specialist (1C) Incident Considerations Course shall include the following training exercises:

(A) The student shall don Level “A” chemical protective clothing and perform simulated hazardous materials mitigation skills in an “obstacle course” (an activity requiring them to complete exercises involving the performance of manipulative tasks commonly carried out in a response to a hazardous materials incident). The student shall complete the course or proceed through the course within the limits of one full SCBA tank.

(B) Participation in a Solid and Liquid Sampling Exercise including successful completion of the following objectives:

(i) Identify and use the appropriate tools and equipment required for taking a sample of a solid hazardous material.

(ii) Identify and use the appropriate tools and equipment required for taking a sample of a liquid hazardous material.

(C) Participation in a Weather and Plume Prediction Exercise including successful completion of the following objectives:

(i) Use a Belt Weather Kit (or other portable weather station kit) to evaluate current weather conditions.

(ii) Using a desktop or laptop computer air dispersion prediction program and given a chemical do a plume prediction based on current weather.

(D) Participation in a Plugging, Patching and Overpacking Exercise including successful completion of the following objectives:

(i) Demonstrate patching various size leaks in a fifty-five gallon drum.

(ii) Demonstrate overpacking a fifty-five gallon drum.

(iii) Demonstrate the proper use of a Chlorine “A” kit.

(iv) Demonstrate proper use of a Chlorine “B” kit.

(v) Demonstrate controlling various leaks in a pipe prop.

(vi) Demonstrate proper use of a pneumatic tank bandage to control a leak in an above-ground tank.

(E) Participate in an Atmospheric Monitoring Exercise including successful completion of the following objectives:

(5) Certified curriculum for the Haz Mat Emergency Response Technician/Specialist (1C) Incident Consideration Course shall include the following evaluation methods:

(A) Completion of the Haz Mat Emergency Response Tech/Specialist (1C) Incident Considerations Course Reference Material Worksheet with a minimum passing score of 70% correct; and,

(B) Completion of the CSTI certified Haz Mat Emergency Response Tech/Spec (1C) Incident Considerations Course Final Exam with a minimum passing score of 70% correct.

(C) Student to Instructor/Equipment/etc. Ratios are used in section (6) below to assure students receive an adequate level of experiential learning. See Section 2540(d)(5)(B) for information on break-outs and sectional training.

(6) The following materials/training aids/equipment are required for teaching the Haz Mat Technician/Specialist (1C) Incident Considerations Course:

(A) Student Text Books (one per student)-

(i) “Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities,” (85-115) by NIOSH , OSHA, USCG, and EPA;

(B) Reference Materials (one per every six students)

(i) Chemical Dictionary (Hawley’s);

(ii) Quick Selection Guide to Chemical Protective Clothing (Forsberg/Mansdorf);

(iii) Handbook of Reactive Chemical Hazards (L. Bretherick) - or Rapid Guide to Chemical Incompatibilities (Pohanish/Green);

- (iv) CHRIS Manual (U.S. Coast Guard);
- (v) American Association of Railroads; Emergency Action Guides
- (vi) Emergency Care for Hazardous Materials Exposure (Currence);
- (vii) Farm Chemical Handbook (Meister);
- (viii) Pocket Guide to Chemical Hazards (NIOSH);
- (ix) Emergency Response Guide Book (DOT)
- (x) Computer loaded with the following:
 - (a) Cameo
 - (b) Chem Knowledge
 - (c) Chemical Reactivity worksheet
- (C) Drums that have been designed with leaks of the following types:
 - (i) One Side Void (eg. fork lift or nail puncture);
 - (ii) One Bottom Failure (bottom of drum cut free so that drum fails if moved);
 - (iii) One Bung Leak (damaged threads); and
 - (iv) One Chine Leak (1/16 holes or saw cut).
- (D) Drums for sampling:
 - (i) One 1A1 with threaded bung, 55 gal.;
 - (ii) One 1A2 with removable top, 55 gal.; and
 - (iii) One non-operable (weld or braze bungs closed).
- (E) Overpack:
 - (i) One DOT 49 CFR 173.3 Salvage Drum, 85 gal.;
 - (ii) One DOT 49 CFR 173.3 Salvage Drum, 8 gal.; and
 - (iii) One Dot 49 CFR 173.3 Salvage Drum, polyethylene.
- (F) One 100-150 lb. Chlorine Container designed for vapor leak from the valve area.
- (G) One 1-Ton Chlorine Container designed for liquid and vapor leaks from valve and fusible plug. Container shall be designed to allow instructor to change leak from a liquid to a vapor when students roll the container.
- (H) One Fixed Bulk Storage Tank (minimum of 200 gallon capacity) with leaks of a type to facilitate the application of a tank bandage.
- (I) One Piping System designed to leak liquid or vapor on 2-12-inch or larger pipes including the following:
 - (i) Valve, Flange, Weld, and Thread Failures;
 - (ii) Cracked Pipe; and,
 - (iii) Sheared Pipe.
- (J) Drum-related:
 - (i) Plug and Dike.
 - (ii) Bung Wrench.
 - (iii) Foam Wedges.
 - (iv) Dye.
 - (v) Epoxy Putty.
 - (vi) Grounding and Bonding.
 - (vii) New Bungs.
 - (viii) Speed Wrench and Socket.
 - (ix) Drum Repair Kit.
 - (x) Drum Hand Truck.
 - (xi) Transfer Pump.
 - (xii) Redwood Plugs.
 - (xiii) Drum Lifter.

- (K) Chlorine-related:
 - (i) A Kit.
 - (ii) B Kit.
 - (iii) Ammonia Atomizer Bottle.
- (L) Piping Leaks-related:
 - (i) Pneumatic Patching Equipment.
 - (ii) Patching Kits.
 - (iii) Flange Gaskets.
 - (iv) Bolts and Nuts.
 - (v) Hand Tools.
- (M) Railroad Tankcar-related:
 - (i) Pneumatic Tank Patching Equipment.
 - (ii) Ladders (Fire Service Type), Minimum 14 feet.
- (N) Chemical Protective Clothing (one each for demonstration)-
 - (i) Level A;
 - (ii) Flash Protection Over Suit;
 - (iii) Cryogenic Over Suit;
 - (iv) Level B;
 - (v) Level C;
 - (vi) Chemical Resistant Boots;
 - (vii) Chemical Resistant Gloves;
 - (vii) Eye Protection (Goggles and Safety Glasses); and
 - (ix) Hearing Protection.
- (x) Respiratory Protection Demonstration Set
 - (a) Full Face APR
 - (b) PAPR (Powered APR)
 - (c) Half Face APR
 - (d) One set of cartridges (or canisters) for each of the above - each set must be a different type with at least one ESL and one HEPA.
 - (e) SCBA
- (O) Sampling-related:
 - (i) Colwasa Tube.
 - (ii) Scoops.
 - (iii) Pipettes.
 - (iv) Soil Sample Auger.
 - (v) Plastic ZipLoc-type Bags.
 - (vi) Drum Thieves
 - (vii) Spoons.
 - (viii) Bottles with Seals and Labels.
 - (ix) 1-gallon Paint Cans for Overpack.
- (P) Monitoring-related: (One monitor of each type for each 2 students plus one full set for the instructor)
 - (i) CGI.
 - (ii) Oxygen Meter.
 - (iii) Photoionization Detector.
 - (iv) Dosimeters.
 - (v) Radiation Meters. Mr/hr and R/hr.
 - (vi) Colormetric Tubes.

- (vii) Test Papers.
- (vii) Belt Weather Kit or Mini-Weather Station (One for each 3 students)
- (Q) Current ICS Forms:
 - (i) Form 201 Incident Briefing,
 - (ii) Form 202 Incident Objectives,
 - (iii) Form 206 - Medical Plan
 - (iv) Form 208 HM Site Safety Plan, Revised 3/98
 - (v) Form 214 Unit Log.
- (R) Safety Equipment
 - (i) First Aid Kit (EMT-1 type).
 - (ii) Emergency Telephone or Radio (to summon paramedic).
 - (iii) Covered Observation Area with sufficient capacity to seat entire class and able to provide protection from the rain and sun.
 - (iv) Flashlights (one per two students).
 - (v) Emergency Night Lighting sufficient to illuminate entire exercise area.

(7) Certification for participants in the Haz Mat Emergency Response Technician/Specialist (C) Incident Considerations Course shall include successful completion of the certified course as referenced in 2520(m), delivered by a CSTI certified instructor as referenced in 2530. Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4), accomplish all objectives, participate in the training exercises and complete the evaluation method at the 70% standard as referenced in section 2520(m).

(n) Hazardous Materials Emergency Response -Technician/Specialist (1D): Tactical Field Operations.

- (1) Certified curriculum for Haz Mat Emergency Response -Tech/Spec (1D): Tactical Field Operations shall include all of the following course objectives:
- (A) The student shall describe the components of a site safety plan for a hazardous materials incident and identify key points that should be made in a safety briefing prior to working on the scene.
 - (B) The student shall describe the duties of the Assistant Safety Officer - Haz Mat within the Incident Command System at a hazardous materials incident.
 - (C) The student shall identify various non-bulk and intermediate bulk packaging, the types of materials they contain, basic design and construction features, and some of the marking requirements for the various packages.
 - (D) The student shall identify the following regarding intermodal tank containers: tank construction features, tank markings, general classes of tanks, tank fittings and how to handle hazardous materials in tank containers.
 - (E) The student shall describe the type of carrier and material most commonly involved in highway hazardous materials incidents.
 - (F) The student shall identify operational situations which may exceed the capabilities of responders training, equipment or technical feasibility.
 - (G) The student shall identify some of the ways in which chemicals could be used for terrorism.
 - (H) The student shall identify the types of shipping papers that may be found on rail cars, as well as the types of information they contain.
 - (I) The student shall identify some of the general types of transport vehicles used in rail transportation.
 - (J) The student shall identify various tank cars by type, capacity and contents they typically transport. The student shall also identify various tank markings and construction features.

(K) The student shall identify various tank car fittings that may be found on the different types of tank cars.

(L) The student shall identify how a liquid pipeline may carry different products, the types of information which may be found on a pipeline marker, basic guidelines to follow for mitigating pipeline incidents.

(M) The student shall identify various offensive control options that may be utilized at a hazardous materials incident including repositioning leaking drums, overpacking, using absorbents, plugging, patching and catching. The student shall describe the purpose of, procedures for, equipment required and safety precautions appropriate for each method. The student shall also identify guidelines for taking samples of a hazardous material.

(N) The student shall identify basic design and construction features of storage tanks found at fixed facilities, the types of materials they may contain, and the types of damage that they could incur. The student shall identify some of the fire and safety protection systems that may be required at a fixed facility or bulk storage facility, and how these systems impact the behavior of the products during an incident. The student shall also identify some guidelines for managing a hazardous materials incident at a fixed facility.

(O) The student shall identify the types of vessels that may be involved in maritime incidents and some of the hazards associated with them, as well as the types of shipping papers that will be carried on these vessels and some of the information they contain. The student shall identify who the responsible authority will be and some basic guidelines to follow in the event of a maritime incident.

(P) The student shall identify some of the metals used in aircraft construction, and the advantages and disadvantages of each, as well as the fuels and fluids generally found aboard aircraft and their associated hazards. The student shall identify regulations pertaining to air transport of hazardous materials, and the types of shipping papers required and some of the information they contain. The student shall also identify some basic airport safety considerations

(Q) The student shall demonstrate the use of emergency hand signals.

(R) The student shall recognize the significant federal and state laws and regulations pertaining to hazardous materials and hazardous waste, as well as some of the key provisions of each. The student shall recognize potential areas of liability in dealing with hazardous materials incidents, as well as guidelines that can be implemented both before and during an incident to minimize liability for response personnel.

(S) The student shall demonstrate the use of plugging and patching equipment for drums.

(T) The student shall demonstrate the use of plugging and patching equipment for repairing leaks on piping systems.

(U) The student shall demonstrate the use of plugging and patching equipment for horizontal and vertical storage tanks.

(V) The student shall demonstrate the safe application of a "Chlorine Institute A Kit".

(W) The student shall demonstrate the safe application of a "Chlorine Institute B Kit".

(X) The student shall demonstrate the ability to perform the following functions at a simulated hazardous materials incident:

(i) Analyze the simulated hazardous materials incident to determine the problem and predict the outcome.

(ii) Identify and perform the appropriate ICS positions required to manage the simulated incident.

(iii) Utilize appropriate technical references to determine product identification and hazards, chemical protective clothing required, and appropriate tactical operations and decon procedures.

(iv) Select and use proper chemical protective clothing and equipment.

- (v) Develop and utilize a site safety plan.
- (vi) Develop and utilize an Incident Action Plan.
- (vii) Identify and perform appropriate decontamination procedures.
- (viii) Identify and use the appropriate tools and equipment necessary to mitigate the simulated problem.
- (ix) Identify and use the selected method for field identification of the released hazardous material.
- (x) Identify and use accepted Standard Operating Procedures for hazardous materials incidents.
- (Y) The student shall participate in an Incident Debriefing and a Post Incident Analysis.
- (Z) The student shall identify components of the three phases of an effective incident termination: debriefing, post-incident analysis and critique

(2) Certified curriculum for Haz Mat Emergency Response -Tech/Spec (1D): Tactical Field Operations shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for the Haz Mat Emergency Response: Tech/Spec (1D): Tactical Field Operations Course shall be 40 hours of training as defined by Title 19 s 2540(j)(4),

(4)(A) Participation in a Plugging, Patching and Overpacking Exercise including successful completion of the following objectives:

- (i) Demonstrate patching various size leaks in a fifty-five gallon drum.
- (ii) Demonstrate overpacking a fifty-five gallon drum.
- (iii) Demonstrate the proper use of a Chlorine "A" kit.
- (iv) Demonstrate proper use of a Chlorine "B" kit.
- (v) Demonstrate controlling various leaks in a pipe prop.
- (vi) Demonstrate proper use of a pneumatic tank bandage to control a leak in an above-ground tank.

(B) Participation in an Evaluation Scenario including successful completion of the following objectives:

- (i) Analyze the simulated hazardous materials incident to determine the problem and predict the outcome.
- (ii) Identify and perform the appropriate positions within the Incident Command System required to manage the simulated incident.
- (iii) Identify and utilize the technical references used for providing information for product identification, chemical protective clothing selection, tactical operations and decontamination procedures.
- (iv) Select and use proper Chemical Protective Clothing and equipment.
- (v) Develop and utilize a Site Safety Plan.
- (vi) Develop and utilize an Incident Action Plan.
- (vii) Identify and perform appropriate decontamination procedures.
- (viii) Identify and use the appropriate tools and equipment necessary to mitigate the simulated problem.
- (ix) Identify and use the selected method for field identification of the simulated released hazardous material.
- (xi) Participate in a post-scenario analysis.

(5) Certified curriculum for the Haz Mat Emergency Response: Tech/Spec (1D): Tactical Field Operations Course shall include the following evaluation method:

- (A) Completion of the CSTI certified Haz Mat Emergency Response: Tech/Spec (1D): Tactical Field Operations Final Exam with a minimum passing score of 70% correct.

(B) Student to Instructor/Equipment/etc. Ratios are used in section (6) below to assure students receive an adequate level of experiential learning. See Section 2540(d)(5)(B) for information on break-outs and sectional training.

(6) The following materials/training aids/equipment are required for teaching the Haz Mat Emergency Response: Tech/Spec (1D) Hazard and Risk Assessment Course:

(A) Drums that have been designed with leaks of the following types:

- (i) One Side Void (e.g. fork lift or nail puncture);
- (ii) One Bung Leak (damaged threads); and,
- (iii) One Chine Leak (1/16 holes or saw cut).

(B) Drums for sampling:

- (i) One 1A1 with threaded bung, 55 gal.;
- (ii) One 1A2 with removable top, 55 gal.; and,

(C) Overpack:

- (i) One DOT 49 CFR 173.3 Salvage Drum, 85 gal.;
- (ii) One DOT 49 CFR 173.3 Salvage Drum, polyethylene.

(D) One 100-150 lb. Chlorine Container designed for vapor leak from the valve area.

(E) One 1 Ton Chlorine Container designed for liquid and vapor leaks from valve and fusible plug. Container shall be designed to allow instructor to change leak from a liquid to a vapor when students roll the container.

(F) One Fixed Bulk Storage Tank (minimum of 200 gallon capacity) with leaks of a type to facilitate the application of a tank bandage.

(G) Ladders (Fire Service Type) minimum 14 feet.

(H) One Piping System designed to leak liquid or vapor on 2.5 inch or larger pipes including the following:

- (i) Valve, Flange, Weld, and Thread Failures;
- (ii) Cracked Pipe; and
- (iii) Sheared Pipe.

(I) Drum-related:

- (i) Plug and Dike;
- (ii) Bung Wrench;
- (iii) Foam Wedges;
- (iv) Epoxy Putty;
- (v) Grounding and Bonding;
- (vi) New Bungs;
- (vii) Speed Wrench and Socket;
- (viii) Drum Repair Kit;
- (ix) Drum Hand Truck;
- (x) Redwood Plugs; and,
- (xi) Drum Lifter.

(J) Chlorine-related:

- (i) A Kit; and,
- (ii) B Kit.

(K) Fixed Storage Tank-related:

- (i) Patching Kits;
- (ii) Pneumatic Patching Equipment; and,
- (iii) 5-Minute Marine Epoxy.

(L) Piping Leaks-related:

- (i) Pneumatic Patching Equipment;
- (ii) Patching Kits;

- (iii) Flange Gaskets;
- (iv) Bolts and Nuts; and,
- (v) Hand Tools.
- (vi) Pneumatic Tank Patching Equipment (Railroad Tankcar - Related).
- (M) Storm Drain-related:
 - (i) Shovels;
 - (ii) Sheet Plastic;
 - (iii) Wheelbarrows;
 - (iv) Sand;
 - (v) Over/Underflow Pipes (3-8 inches diameter); and,
 - (vi) Pneumatic Plugs.
- (N) Absorbents (polar and non polar type):
 - (i) Pads;
 - (ii) Booms;
 - (iii) Pillows; and,
 - (iv) Granular.
- (P) Monitoring-related:
 - (i) CGI;
 - (ii) Oxygen Meter;
 - (iii) Photoionization Detector;
 - (iv) Dosimeters;
 - (v) Radiation Meters, Mr/hr and R/hr;
 - (vi) Colormetric Tubes;
 - (vii) Field Chemical ID Kit; and,
 - (viii) Test Papers.
 - (ix) One Belt Weather Kit (or Mini-Weather Station)
- (Q) Decontamination-related:
 - (i) Four Containment Pools;
 - (ii) Four Water Wands;
 - (iii) Two Hudson Type Garden Sprayers;
 - (iv) Wash Tubs;
 - (v) Trash Bags (55 gallon-type);
 - (vi) Four Garden Hoses or Equivalent;
 - (vii) Tarps;
 - (viii) Brush Assortment;
 - (ix) Sponges; and,
 - (x) Towels.
 - (xi) Four Astro-Terf Type Dormats (or similar for pool bottoms).
- (R) Other:
 - (i) Windsock;
 - (ii) 20 Traffic Cones;
 - (iii) Barrier Tape;
 - (iv) Bull Horn; and
 - (v) Incident Command Vests:
 - a. Haz Mat Group Supervisor;
 - b. Assistant Safety Officer;
 - c. Entry Team Leader;
 - d. Decon Team Leader;

- e. Technical Reference Leader; and,
- f. Site Access Leader.

(vi) Computer, loaded with CAMEO, WISER and Reactivity Worksheet (Ratio 1 computer for each 3 students)

(S) Reference Materials:

(i) Chemical Dictionary (Hawley's);

(ii) Quick Selection Guide to Chemical Protective Clothing (Forsberg/Mansdorf);

(iii) Handbook Of Reactive Chemical Hazards (L. Bretherick) - or Rapid Guide to chemical Incompatibilities (Pohanish/Green);

(iv) CHRIS Manual (U.S. Coast Guard - Printed or electronic);

(v) American Association of Railroads; Emergency Action Guides;

(vi) Emergency Care for Hazardous Materials Exposure (Currence);

(vii) Crop Protection Handbook (Meister);

(viii) Pocket Guide to Chemical Hazards (NIOSH);

(ix) Emergency Response Guide Book (DOT).

(T) Protective clothing:

(i) Level A Suits (One Suit for each student. Suit must provide total encapsulation.);

(ii) Level B Suits (one per student);

(iii) Chemical Resistant Boots (one pair per student);

(iv) Chemical Resistant Gloves (one pair per student);

(v) Self-Contained Breathing Apparatus Mask (one per student);

(vi) Self-Contained Breathing Apparatus (one per every two students);

(U) Current ICS Forms:

(i) ICS Form 201 -Incident Briefing;

(ii) ICS Form 202 - Incident Objectives;

(iii) ICS Form 206 - Medical Plan

(iv) ICS Form 208 HM Site Safety Plan Revised 3/98;

(v) ICS Form 214 - Unit Log;

(V) Safety Equipment

(i) First Aid Kit (EMT-1 type).

(ii) Emergency Telephone or Radio (to summon paramedic).

(iii) Covered Observation Area with sufficient capacity to seat entire class and able to provide protection from the rain and sun.

(iv) Flashlights (one per two students).

(v) Emergency Night Lighting sufficient to illuminate entire exercise area.

(7) All leaks generated at the Field Training Facility shall be designed to leak at the approximate gallons per minute (and pressure) that would be found in an actual incident.

(8) Certification for participants in the Haz Mat Emergency Response: Tech/Spec (1D) Tactical Field Operations Course shall include successful completion of the certified course as referenced in 2520(n), delivered by a CSTI certified instructor as referenced in 2530. Students shall accomplish all objectives, participate in all of the training exercises and scenarios and complete the evaluation method at the 70% standard as referenced in section 2520(n).

(o) (This section reserved for future use.)

(p) Hazardous Materials Emergency Response - Specialist (1F): Specialized Mitigation Techniques.

(1) Certified curriculum for Haz Mat Emergency Response Specialist (1F) Specialized Mitigation Techniques shall include all of the following course objectives:

(A) The student shall define the term “matter”, list the three states of matter, describe physical and chemical change, giving examples of each, read and interpret information from the periodic table, describe atomic structure and list the four families: alkali metals, alkaline earths, halogens and noble gases.

(B) The student shall list six salts, provide the chemical formula and list the hazards of each. The student shall identify and name non-salts, list the hydrocarbon radicals and derivatives, draw their structural formulas and list the hazards associated with each.

(C) Given at least five unknown substances, two of which are solid, and three are liquids, the student shall identify or classify by hazard each of the unknown substances.

(D) The student shall identify safe and unsafe behaviors as they pertain to chemical handling.

(E) The student shall identify the principles and tests used in field identification kits to determine the hazards or identity of unknown chemicals.

(F) The student shall describe the process of looking for contaminants in air, list the major components of a normal atmosphere, and list the types of contaminants which make an atmosphere hazardous. The student shall list the OSHA requirements for entry into a confined space, describe the process of finding unknown gases based on vapor density and interpreting results. Also, the student shall list the four uses of monitoring and the types of instruments available, including the capabilities of each. The student shall utilize a monitoring strategy to analyze unknown atmospheres including an analysis of site specific conditions.

(G) The student shall define what Radiation Detection Monitors are designed to detect, describe how they operate, demonstrate how to prepare the Radiation Monitors for use and how to monitor an unknown atmosphere, describe how to interpret the results, and list some of the limitations associated with Radiation Monitors.

(H) The student shall describe the development of an incident action plan for a Radioactive Materials Emergency Incident.

(I) The student shall define what Combustible Gas Indicators (CGI's) are designed to detect, describe how they operate, demonstrate how to prepare the CGI for use and how to monitor an unknown atmosphere, describe how to interpret the results, and list some of the limitations associated with CGI's.

(J) The student shall define what Photoionization Detectors (PID's) are designed to detect, describe how they operate, demonstrate how to prepare the PID for use and how to monitor an unknown atmosphere, describe how to interpret the results, and list some of the limitations associated with PID's.

(K) The student shall identify what colorimetric tubes, electrochemical sensors, flame ionization detectors and infrared spectroscopy are designed to detect; describe how these various devices work; and identify some of the use considerations and limitations associated with these devices.

(L) The student shall recognize explosives by their chemical formula, structure or characteristics; list initiators of explosives. The student shall also list the four categories of explosives, and give examples of common improvised and conventional explosives.

(M) Student shall identify the mechanisms by which heat builds up in workers operating in chemical protective clothing, and the appropriate measures to take for someone experiencing a heat related illness.

(N) Student shall identify procedures by which hazardous materials response personnel shall be medically evaluated at incidents.

(O) The student shall don Level “A” chemical protective clothing and perform simulated hazardous materials mitigation skills. The student shall complete the course or proceed through the course within the limits of one full SCBA tank.

(P) The student shall demonstrate the use of grounding and bonding equipment for product transfer.

(Q) The student shall demonstrate the use of plugging and patching equipment for drums.

(R) The student shall demonstrate the use of transfer pumps for product transfer between drums.

(S) The student shall demonstrate the safe use of a drum hand truck.

(T) The student shall demonstrate the safe use of a drum upender.

(U) The student shall demonstrate overpacking of a 55 gallon drum by the “V-Roll” and “End Over” Techniques.

(V) The student shall demonstrate the use of plugging and patching equipment for repairing leaks on piping systems.

(W) The student shall demonstrate the use of plugging and patching equipment for horizontal and vertical storage tanks.

(X) The student shall demonstrate the safe application of a “Chlorine Institute A Kit”.

(Y) The student shall demonstrate the safe application of a “Chlorine Institute B Kit”.

(Z) The student shall identify the features of a general service railroad tank car.

(AA) The student shall close a bottom-operated outlet valve to stop a simulated leak on a general service railroad tank car.

(BB) The student shall tighten the cap/plug on a bottom outlet valve using a pipe wrench on a general service railroad tank car.

(CC) The student shall close a top-operated bottom outlet valve on a general service railroad tank car.

(DD) The student shall tighten the stuffing box packing for a top-operating bottom outlet valve using a pipe wrench on a general service railroad tank car.

(EE) The student shall stop a simulated leak on a general service manway using a wrench on a general service railroad tank car.

(FF) The student shall explain the purpose of a vacuum breaker valve and demonstrate the proper method for depressurizing a general service rail car.

(GG) The student shall repair a simulated leak on a liquid line valve on a general service railroad tank car.

(HH) The student shall stop a simulated leak in the vapor line on a general service railroad tank car.

(II) The student shall stop a simulated leak from a safety relief valve on a general service railroad tank car.

(JJ) The student shall identify the features of a pressurized rail car.

(KK) The student shall stop a simulated leak in an angle ball/gate valve on a pressurized rail car.

(LL) The student shall stop a simulated leak in the sample line on a pressurized rail car.

(MM) The student shall stop a simulated leak in the thermometer well of a pressurized rail car.

(NN) The student shall stop a simulated leak in the slip tube gauging device on a pressurized rail car.

(OO) The student shall stop a simulated leak in the safety relief valve on a pressurized rail car.

(PP) The student shall identify the dome features of a pressurized chlorine rail car.

(QQ) The student shall stop a simulated leak on the angle gate valve on a pressurized chlorine rail car.

(RR) The student shall stop a simulated leak on the safety relief valve of a pressurized chlorine rail car.

(SS) The student shall identify advantages of recycling, general conditions and restrictions that apply to recycling, and some of the materials that can and cannot be recycled.

(TT) The student shall identify some of the agencies that might have responsibility for site mitigation management; important considerations regarding funding, transporting waste, utilizing temporary storage facilities, and dealing with citizen concerns. The student shall identify some of the regulations that must be complied with during site mitigation, as well as four legal methods of hazardous waste disposal.

(UU) The student shall identify the three tactical priorities at a haz mat incident, and essential command and control functions. The student shall also be able to describe the levels that a haz mat incident may be divided into, and list criteria for determining those levels.

(VV) The student shall demonstrate the ability to perform one of the following functions at a simulated hazardous materials incident:

(i) Analyze the simulated hazardous materials incident to determine the problem and predict the outcome.

(ii) Identify and perform the appropriate ICS positions required to manage the simulated incident.

(iii) Utilize appropriate technical references to determine product identification and hazards, chemical protective clothing required, and appropriate tactical operations and decon procedures.

(iv) Select and use proper chemical protective clothing and equipment.

(v) Develop and utilize a site safety plan.

(vi) Develop and utilize an Incident Action Plan.

(vii) Identify and perform appropriate decontamination procedures.

(viii) Identify and use the appropriate tools and equipment necessary to mitigate the simulated problem.

(ix) Identify and use the selected method for field identification of the released hazardous material.

(x) Identify and use accepted Standard Operating Procedures for hazardous materials incidents.

(WW) The student shall participate in an Incident Debriefing and a Post Incident Analysis.

(2) Certified curriculum for Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques Course shall be 40 hours in length.

(4) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques Course shall include all of the following training exercises:

(A) Participation in a Level "A" Chemical Protective Clothing Manipulative Obstacle Course including successful completion of all of the following objectives while donned in Level "A" CPC:

(i) Student shall be able to walk on uneven terrain.

(ii) Student shall be able to climb a fire service ladder to the working platform on a railroad tankcar.

(iii) Student shall be able to cross underneath a cargo tank or rail car without touching knees to the ground.

(iv) Student shall be able to open and/or close a gate valve.

(v) Student shall be able to right an overturned 55-gallon drum.

(vi) Student shall be able to select the proper tools and unbolt or reconnect a simulated pipe mount.

(vii) Student shall be able to remove and replace a drum bung.

(viii) Student shall be able to remove and replace a threaded pipe cap.

(ix) Using a drum hand truck, student shall be able to move a full 55-gallon drum 50 feet.

(x) Student shall be able to shovel 4 shovels full of dirt.

(xi) Student shall be able to insert a redwood plug in a hole in a tank.

(xii) Using a hand transfer pump, student shall be able to transfer 2 gallons of water from a 55-gallon drum into a bucket, then pour the bucket into another 55-gallon drum.

(B) Participation in a Chlorine “B” Kit Exercise, including successful completion of all of the following objectives:

(i) Student shall be able to select and apply the proper components to mitigate a given leak.

(ii) Student shall be able to roll a 1-ton container to change a liquid leak into a vapor leak.

(C) Participation in an Elevated Storage Tank Exercise, including successful completion of all of the following objectives:

(i) Student shall be able to mitigate leaks using mechanical plugging and patching equipment.

(ii) Student shall be able to mitigate leaks using pneumatic plugging and patching equipment.

(iii) Student shall be able to mitigate leaks using granular plugging and patching materials.

(D) Participation in a Piping Simulator Exercise, including successful completion of all of the following objectives:

(i) Student shall be able to mitigate leaks using mechanical plugging and patching equipment.

(ii) Student shall be able to mitigate leaks using pneumatic plugging and patching equipment.

(E) Participation in a Drum Handling Exercise, including successful completion of all of the following objectives:

(i) Student shall be able to mitigate leaks using mechanical plugging and patching equipment.

(ii) Student shall be able to apply chemical patching materials.

(iii) Student shall be able to demonstrate product transfer operations.

(iv) Student shall be able to demonstrate over-packing a drum.

(v) Student shall be able to demonstrate moving a loaded drum.

(F) Participation in a Level “A” Exercise/Scenario, including successful completion of all of the following objectives:

The student, acting within a team, shall:

(i) Apply hazard and risk assessment.

(ii) Employ entry team operations.

(iii) Utilize sampling and monitoring techniques.

(iv) Establish control zones.

(v) Utilize product control methods.

(vi) Establish decontamination operations.

- (vii) Develop site-safety plans and incident-action plan.
- (viii) Employ rescue/decontamination of the injured.
- (ix) Employ medical surveillance.
- (x) Select appropriate protective clothing, reservice and clean.
- (xi) Employ Incident Command System.
- (xii) Perform field identification of chemical unknowns.
- (xiii) Prepare a press release.
- (xiv) Utilizing the proper current ICS forms, document all incident operations using the following forms:

- (1) ICS Form 201 - Incident Briefing;
- (2) ICS Form 202 - Incident Objectives;
- (3) ICS Form 206 - Medical Plan
- (4) ICS Form 214 - Unit Log;
- (5) ICS Form 208 - Site Safety Plan

(5) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques Course shall include the following evaluation methods:

(A) Completion of a Level “A” manipulative obstacle course with a minimum passing score of 100%; and,

(B) Completion of the CSTI certified Hazardous Mat Specialist (1F) Specialized Mitigation Techniques Course Final Exam with a minimum passing score of 70% correct.

(6) The following materials/training aids/equipment are required for teaching the Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques Course:

(A) A State Certified Hazardous Materials Field Training Facility (FTF) containing all of the training aids, equipment, reference materials, protective clothing, forms and safety items as designated in Section 2560(a).

(7) Certification for participants in the Hazardous Materials Emergency Response Specialist (1F) Specialized Mitigation Techniques Course shall include successful completion of the certified course as referenced in 2520(p), delivered by a CSTI certified instructor as referenced in 2530. Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4), accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in section 2520(p).

(q) Hazardous Materials Emergency Response - Specialist (1G): Tactical Field Operations.

(1) Certified curriculum for Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course shall include all of the following course objectives:

(A) Student shall function as a Hazardous Materials Team member under the Incident Command System at a simulated hazardous materials incident.

(B) Student shall demonstrate the ability to perform the duties of a member of the Command Staff within the Incident Command System at a simulated hazardous materials incident.

(C) Student shall demonstrate the ability to perform the duties of a member of the Hazardous Materials Group within the Incident Command System at a simulated hazardous materials incident.

(D) Student shall demonstrate the ability to perform the duties of a member of the Entry Team within the Incident Command System at the simulated hazardous materials incident.

(E) Student shall demonstrate the ability to perform the duties of a member of the Decontamination Team within the Incident Command System at a simulated hazardous materials incident.

(F) Student shall demonstrate the ability to perform the duties of a member of the Technical Specialist Haz Mat Reference Team within the Incident Command System at a simulated hazardous materials incident.

(G) Student shall demonstrate the ability to perform the duties of a member of the Site Access Control Team within the Incident Command System at a simulated hazardous materials incident.

(H) Student shall demonstrate the ability to don and doff chemical protective clothing at a simulated hazardous materials incident.

(I) Student shall demonstrate the ability to collect and handle chemical samples at a simulated hazardous materials incident.

(J) Student shall demonstrate the ability to select, operate and interpret readings from atmospheric monitoring instruments at a simulated hazardous materials incident.

(K) Student shall demonstrate the ability to perform field identification of chemical unknowns at a simulated hazardous materials incident.

(L) Student shall demonstrate the ability to perform medical monitoring of personnel donned in chemical protective clothing and make recommendations based on the results at a simulated hazardous materials incident.

(M) Student shall demonstrate the ability to select and use proper hand tools to mitigate or control a chemical release at a simulated hazardous materials incident.

(N) Student shall demonstrate the ability to implement proper mitigation techniques at a simulated hazardous materials incident.

(O) Student shall demonstrate the ability to participate in the incident termination phase at a simulated hazardous materials incident.

(2) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course shall be 40 hours in length.

(3) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course shall include a minimum of seven of the following training exercises/scenarios, with a minimum of one exercise/scenario conducted in reduced lighting (after sunset):

(A) Participation in a Release of a simulated DOT Hazard Class 6.1 Poison from a Railroad Tankcar Exercise/Scenario.

(B) Participation in a Release of a simulated DOT Hazard Class 2.3 Poison from a Railroad Tankcar Exercise/Scenario.

(C) Participation in a simulated Accidental Release of Unknown Powered Material from a Truck Accident Exercise/Scenario.

(D) Participation in an Abandoned Leaking Drums-Multiple Hazard Exercise/Scenario.

(E) Participation in a Pressurized Gas Leak from a 1-Ton or Smaller Container Exercise/Scenario.

(F) Participation in a Transportation Incident Release of Product in an Open Area Exercise/Scenario.

(G) Participation in a Pressurized Pipeline Emergency Exercise/Scenario.

(H) Participation in a Fixed Bulk Storage Tank Exercise/Scenario.

(I) Participation in a simulated Radioactive Materials Exposure Exercise/Scenario.

(J) Participation in a simulated Corrosive Hazardous Materials Release From Railroad Tankcar Exercise/Scenario.

(K) Participation in a Release of simulated Mixed Hazardous Cargo in a Confined Area Exercise/Scenario.

(L) Participation in a Collection of Evidence and Cleanup of a simulated Illegal Drug Lab Exercise/Scenario.

(M) Participation in a Release of a simulated Combustible or Flammable Liquid from a Railroad Tankcar Exercise/Scenario.

(N) Participation in a simulated Cryogenic Tanker Accident Exercise/Scenario.

(O) Participation in a simulated Release of a Combustible or Flammable Liquid from MC 306/406 Cargo Tank Exercise/Scenario.

(P) Participation in a Stinger Operation on an Overturned MC 306/406 Cargo Tank Carrying simulated Combustible or Flammable Liquids Exercise/Scenario.

(Q) Participation in a Release of a simulated Liquefied Gas from a Railroad Tankcar Exercise/Scenario.

(4) Certified curriculum for the Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course shall include the following evaluation methods:

(A) Completion of the CSTI Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course Student Participation Record with a minimum passing score of 70% correct in all of the following manipulative skills:

- (i) Donning, doffing and working in level “A” or “B” chemical protective clothing.
- (ii) Application of atmospheric monitoring equipment including, combustible gas indicator, oxygen sensors, photoionization detector and radiation detection.
- (iii) Collection and handling of samples.
- (iv) Field identification of chemical unknowns.
- (v) Selection and application of leak mitigation equipment.
- (vi) Application of appropriate personnel and equipment decontamination.
- (vii) Interpretation of printed and computer based reference sources.
- (viii) Application of site access control zones.
- (ix) Function as a member of the Hazardous Materials Response Team under the Incident Command System.
- (x) Function as a member of the Entry Team.
- (xi) Function as a member of the Decontamination Team.
- (xii) Function as a member of the Technical Reference Team.

(5) The following materials/training aids/equipment are required for teaching the Hazardous Materials Emergency Response Specialist (1g) Tactical Field Operations Course:

(A) A State Certified Hazardous Materials Field Training Facility (FTF) containing all of the training aids, equipment, reference materials, protective clothing, forms, and safety items as designated in Section 2560(a).

(6) Certification for participants in the Hazardous Materials Emergency Response Specialist (1G) Tactical Field Operations Course shall include successful completion of the certified course as referenced in section 2520(q), delivered by a CSTI certified instructor as referenced in section 2530. Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4), accomplish all objectives, participate in all training exercises and complete the evaluation methods at the 70% standard as referenced in section 2520(q).

(r) Hazardous Materials/Weapons of Mass Destruction: Assistant Safety Officer

(1) Course Prerequisite: This course is directed to the Hazardous Materials Technician and Specialist Levels. Students must provide evidence of current certification to the Hazardous Materials Technician or Specialist Level as defined by Title 8 CCR 5192(q)(6)(C) or (D) prior to enrollment. Certified curriculum for Haz Mat/WMD: Assistant Safety Officer shall utilize Incident Action Plans, Site Safety Plans, reports from incident personnel and personal observations and shall include all of the following course objectives:

(A) The student shall demonstrate the ability to analyze a hazardous materials/WMD incident to determine the magnitude of the problem in terms of safety by observing the scene and evaluating the hazards and response information.

(B) The student shall demonstrate the ability to assist in planning a safe response within the level, resources and capabilities of the response personnel.

(C) The student shall demonstrate the ability to ensure the implementation of a safe planned response consistent with the local emergency response plan and the organization's Standard Operating Procedures.

(D) The student shall demonstrate the ability to evaluate the progress of the planned response to ensure the objectives are being met safely.

(E) The student shall prepare a site safety plan (ICS 208).

(F) The student shall demonstrate the ability to review an incident action plan and provide recommendations regarding safety components.

(G) The student shall be able to select the appropriate type and level of Personal Protective Equipment at a Haz Mat/WMD incident.

(H) When provided with a real (historical) or simulated decontamination scenario, the student shall demonstrate the skill of evaluating the decon plan and make recommendations concerning safety.

(I) The student shall demonstrate the ability to conduct safety briefings at a Haz Mat/WMD incident.

(J) The student shall demonstrate an understanding of implementation and enforcement of safety issues at a Haz Mat/WMD incident.

(K) The student shall demonstrate proper communications during a Haz Mat/WMD incident.

(L) The student shall be able to identify and evaluate the incident safety and/or action plan to detect and recognize deviations from the Site Safety Plan and any dangerous situations.

(M) The Student shall describe the procedures for taking corrective actions when dangerous situations are encountered at a Haz Mat/WMD incident.

(N) The student shall identify appropriate transportation and medical services required at a Haz Mat/WMD incident.

(O) The student shall describe the proper procedures for termination of a Haz Mat/WMD incident.

(2) To satisfy the above objectives, students will demonstrate knowledge and skills through the following activities:

(A) Safety Briefing(s)

(B) Development of a Site Safety Plan

(C) Review and discuss case studies related to safety

(D) Review and discuss past incident action plans

(3) Certified curriculum for the Haz Mat/WMD: Assistant Safety Officer Course shall be a minimum of 16 hours in length and shall include all of the course material listed in Section 2540(t).

(4) Completion of a CSTI certified Haz Mat/WMD Assistant Safety Officer Course written exam with a minimum passing score of 70% correct.

(5) Certification for participants in the Haz Mat/WMD: Assistant Safety Officer Course shall include successful completion of the certified course as referenced by Section 2520(r) and as delivered by a CSTI certified instructor as referenced in Section 2530(m). Student shall meet a minimum attendance requirement of 16 hours, accomplish all objectives, participate in the training exercises and complete the evaluation method at the 70% standard.

(s) Hazardous Waste General Site Worker

(1) This section applies to:

(A) Hazardous Waste General Site Worker 40 hour course as required by Title 8 CCR 5192(e)(3)(A) and Title 29 CFR 1910.120(e)(3)(i).

(B) Hazardous Waste Occasional Site Worker, 24 hour class as required in Title 8 CCR 5192(e)(3)(B) and Title 29 CFR 1910.120(e)(3)(ii).

(C) Hazardous Waste Site Worker, Characterized Site 24 hour class as required by Title 8 CCR 5192(e)(3)(C) and Title 29 CFR 1910.120(e)(3)(iii).

(D) Upgrade to General Site Worker, 16 hour to Hazardous Waste General Site Worker (40 hour level) as required in Title 8 CCR 5192(e)(3)(D) and Title 29 CFR 1910.120(e)(3)(iv).

(2) This training is required to be site-specific. Course Managers will focus the learning materials and manipulative experience to represent the equipment and skill levels present on the specific site. For open-enrollment classes, where the site is unknown or a variety of different sites and situations are represented, all of the material and the below listed manipulative skills will be completed.

(3) Course Managers will use the most current version of the General Site Worker text (and supplemental materials) for both the 40 course and the 24 hour courses. Certified Curriculum will include all of the course objectives listed below.

(A) The students level of understanding of the subject matter will be verified through the use of written pre-course work sheets (contained in the Instructor Guide), homework assignments administered during the course and a minimum 50 question multiple choice/true-false examination with a minimum passing score of 70%. One retake of the exam will be permitted for students who do not attain 70% or better the first time.

(B) The participant shall meet the following knowledge objectives:

(i) Know who is responsible for the health and safety of workers on site and understand the chain of command system

(ii) Understand what Safety Hazards are or could be on a hazardous waste site

(iii) Understand what Health hazards are or could be on a hazardous waste site

(iv) Understand what other hazards which may be found on a hazardous site

(v) Have an understanding of the different types and uses of Chemical Protective Clothing

(vi) Have an understanding of the different types and uses of Safety Clothing

(vii) Have an understanding of the different types and uses of Respiratory Protective Equipment

(viii) Have an understanding of Safe Work practices and site safety

(ix) Understand how to use engineering controls during site activities

(x) Understand what equipment is or may be on a hazardous waste site and how to operate it, or where to find instruction in its use

(xi) Understand what medical surveillance is required, the elements of the program and how to access medical records.

(xii) Understand how to recognize the signs and symptoms of overexposure to hazards

(xiii) Understand the types and purpose of Decontamination at a hazardous waste site

(xiv) Understand the importance of and know the elements of an emergency response plan

(xv) Understand the Personal Protective Equipment requirements of an on-site emergency and the additional skills and equipment which may be required

(xvi) Understand the hazards and procedures associated with entry into a confined space

(xvii) Understand the different elements required in a spill control plan and the methods available to make it effective

(xviii) Understand spill containment and control options available at a hazardous waste site

(xvii) Understand how and why sites and workplaces are monitored and the types of equipment used.

(xx) Non-Mandatory elements of importance:

- a. Understand how sites are characterized and analyzed
- b. Understand what site control is and its importance
- c. Understand the levels of training within section 5192 and how it relates to the site worker
- d. Understand safety issues including: Illumination, sanitation, hearing and other safety issues which may be found on a waste site
- e. Understand terminology as it relates to hazardous waste and waste sites

(C) The participant shall meet the following skills objectives and manipulative skills will be verified by the course coordinator prior to advancement to the next skill. All participants (except the 24 hour classes) will complete all of the following:

- (i) Hands-on orientation sessions with all equipment as listed in section(D)
- (ii) Participation in an obstacle course as listed in section (D) (viii)
- (iii) Participation in a scenario or exercise which simulates a hazardous waste site and provides the participants with the opportunity of wearing the proper PPE while performing manipulative tasks.

(D) Skills objectives will include:

- (i) In small teams (of 2 or 3) write a site safety and health plan for a simulated hazardous waste site or activity
- (ii) Each participant will don and doff Level C, Level B and/or Level A chemical protective equipment in practice, skill development and as directed in the final exercise
- (iii) Each participant will don and doff a supplied air respirator and an air purifying respirator
- (iv) Each participant will assist in the set-up and operation of a decontamination area and will decontaminate at least one person and be decontaminated themselves at least once.
- (v) Each participant will practice drum opening, closing, moving and patching techniques
- (vi) Each participant will practice spill containment techniques
- (vii) Each participant will demonstrate the set-up and operation of an air monitor which measures at least Oxygen and Flammability (Percent of LEL)
- (viii) Each participant will participate in an obstacle course designed to exercise some or all of the skills listed above
- (ix) Each participant will assume a role within the final scenario and objectively demonstrate their skill in the task assigned
- (x) Optional skill: Each participant will practice two types of sampling during an exercise or the obstacle course
- (xi) Student to Instructor/Equipment/etc. Ratios are used in section (6) below to assure students receive an adequate level of experiential learning. See Section 2540(d)(5)(B) for information on break-outs and sectional training.

(4) The following Training aids, materials and equipment are required for teaching the 40 hour Hazardous Materials Waste General Site Worker Class (as noted in section (2) above):

- (i) Student Text Books (one per student).
- (ii) Reference Materials (one copy per every 4 (four) students) to include but not limited to;
 - a. NIOSH Pocket Guide to Chemical Hazards (current edition);
 - b. Appropriate Material Safety Data Sheet(s) for hazardous substances present at the work site, facility and/or industry involved;
 - c. The most current edition of the Department of Transportations Emergency Response Guide

(iii) Monitoring equipment used at the work site, facility and/or industry involved (one each for demonstration) or as required in (D)(vii) above.

(iv) Personal Protective Equipment used at the work site, facility and/or industry involved (one each for demonstration).

(v) Personal Protective Equipment, of the Level and type used at the site, facility and/or industry involved, for student use. The course manager shall ensure that there are sufficient suits and respiratory equipment on hand to ensure that no suit or respiratory equipment is worn twice without being cleaned and disinfected.

(vi) Forms used at the work site, facility and/or industry involved, including but not limited to:

- a. Medical Monitoring Form;
- b. Site Safety Health and Safety Plan;
- c. Organizational Structure Form.

(vii) Decontamination equipment representative of the standard teaching model (2 or 3 pool layout) or those used at the work site, facility and/or industry involved.

(viii) Miscellaneous:

- a. Tarps or shade to protect participants from heat when outside;
- b. Methods of restricting access to the simulated control zones;
- c. A method or device for communication during the obstacle course and final exercise;
- d. Drum opening, plug, patch and sampling materials
- e. Containment and control materials. Such as, but not limited to: Booms, Non-sparking shovels, sorbant, pigs and etc.

(5) Certification for participants in the Hazardous Waste General Site Worker Course shall include all of the following:

(i) Successful completion of the certified course, as referenced in Section 2520(s)

(ii) Meet a minimum attendance of 40 hours and accomplish all course objectives as referenced in Section 2520(s); and,

(iii) Completion of the CSTI certified Hazardous Waste General Site Worker Course Final Exam with a minimum passing score of 70% or better.

(6) Certified Curriculum for Hazardous Waste Occasional Site Worker (8CCR5192(e)(3)(B)) shall be 24 hours in length and the course shall use the 40 Site Worker text.

(i) Successful completion of the certified course, as referenced in Section 2520(s)

(ii) Meet a minimum attendance of 24 hours and accomplish all course objectives as referenced in Section 2520(s); and,

(iii) Completion of the CSTI certified Hazardous Waste Occasional Site Worker Course Final Exam with a minimum passing score of 70% or better.

(7) Certified Curriculum for Hazardous Waste Site Worker, Characterized Site (8CCR5192(e)(3)(C)), shall be 24 hours in length and the course shall use the 40 Site Worker text.

(i) Successful completion of the certified course, as referenced in Section 2520(s)

(ii) Meet a minimum attendance of 24 hours and accomplish all course objectives as referenced in Section 2520(s); and,

(iii) Completion of the CSTI certified Hazardous Waste Site Worker, Characterized Course Final Exam with a minimum passing score of 70% or better.

(8) Certification for Hazardous Waste General Site Worker Up-Grade to the 40 hour level from the 24 hours level (8 CCR 5192(e)(3)(D)) shall require the completion of each of the following:

(i) Successful completion of a CSTI/State certified 24 hour course as referenced in Section 2520(s)

(ii) Meet a minimum attendance of 16 hours and accomplish all course objectives as referenced in Section 2520(s)(3)(C). Participation and completion of Day 4 and Day 5 (equivalent to 16 hours) of a five day CSTI Certified 40 hour Hazardous Waste General Site Worker course is considered adequate for skill based objective completion.

(iii) Completion of the CSTI certified Hazardous Waste General Site Worker, 40 hour, Final Exam with a minimum passing score of 70% or better.

(t) Hazardous Materials Emergency Response Technician-Private Industry.

(1) Certified curriculum for Hazardous Materials Emergency Response Technician -Private Industry Course shall include all of the course objectives listed below, except as noted in paragraph (3) of this Section. Course managers shall ensure, to the extent practical, that the training methods used to meet these objectives are focused on the procedures, products and/or facilities in use at the site and/or industry that the particular class is directed at.

(A) The student shall recognize significant federal and state laws and regulations pertaining to hazardous materials and hazardous waste, as well as key provisions of each law and regulation. The student shall describe his/her rights and responsibilities under OSHA regulations and other related laws.

(B) The student shall recognize accepted safety practices common to the industrial setting. The student shall identify standard accident prevention concepts.

(C) The student shall identify key components of his/her employer's hazardous materials emergency response plan.

(D) The student shall describe the components of a site safety plan for a hazardous materials incident and identify key points that should be made in a safety briefing prior to working on the scene.

(E) The student shall recognize basic ICS concepts as they apply to hazardous materials incidents, the general organization of the Incident Command System and the applicable standard ICS forms.

(F) The student shall describe the duties of a member of the Command Staff within the Incident Command System at a hazardous materials incident.

(G) The student shall describe the duties of each position within the Hazardous Materials Group, to include: The Hazardous Materials Group Supervisor, the Entry Leader, the Decontamination Leader, the Site Access Control Leader, the Safe Refuge Area Manager, the Assistant Safety Officer-Hazardous Materials and Technical Specialist- Hazardous Materials Reference.

(H) The student shall recognize the importance of establishing control zones and identify the three control zones to be established at a hazardous materials incident.

(I) The student shall recognize basic chemical and physical terms and behaviors.

(J) The student shall describe the types of exposure, the toxic effects, the dose-response relationship and terms used to describe toxicity and environmental conditions at a hazardous materials incident.

(K) The student shall describe OSHA required Medical Programs including Medical Surveillance Program and Medical Monitoring Program.

(L) The student shall identify the types of hazard and response information available from reference manuals, hazardous materials data bases, technical information centers (i.e. CHEMTREC) and technical information specialists. The student shall explain the advantages and disadvantages of each resource. The student shall utilize various reference sources to identify hazard and response information about various hazardous materials.

(M) The student shall identify the various types of respiratory protection to include: self contained breathing apparatus (SCBA), supplied air respirators (SAR) and air purifying respirators (APR).

(N) The student shall identify the three types of Chemical Protective Clothing: vapor-protective, splash-protective and support-function clothing and describe the advantages and disadvantages of each. The student shall identify the four levels of chemical protection (EPA/NIOSH/NFPA) and match both the equipment required for each level and the conditions under which each level is used. The student shall explain the significance of degradation, penetration and permeation as they relate to suit selection.

(O) The student shall describe the procedures for donning and doffing the respiratory protection devices and protective clothing used at the facility and/or industry involved.

(P) The student shall identify various environmental, mechanical, physiological and psychological stresses to which personnel working in chemical protective clothing are subjected.

(Q) The student shall identify the mechanisms by which heat builds up in workers operating in chemical protective clothing, and the appropriate measures to take for someone experiencing a heat related illness.

(R) The student shall identify procedures by which hazardous materials response personnel will be medically monitored at hazardous materials incidents.

(S) The student shall describe the various monitoring instruments used for air monitoring to include, but not limited to: A combustible gas indicator, a colorimetric tube, a photo-ionization device, an oxygen detection device. (A multi-detection instrument reading combustible gasses, oxygen, carbon monoxide and hydrogen sulfide may also be used.) The student shall describe the theory of operation for each instrument.

(T) The student shall identify the hazards and risks involved with confined space operations during a hazardous materials release.

(U) The student shall describe the information needed to conduct a Hazard and Risk Assessment during a hazardous materials incident.

(V) The student shall identify various offensive control options that may be utilized at a hazardous materials incident including repositioning leaking drums, overpacking, using absorbents, plugging, patching and catching. The student shall describe the purpose of, procedures for, equipment required and safety precautions appropriate for each method.

(W) The student shall identify various defensive control options that may be utilized at a hazardous materials incident including damming, diking and diverting. The student shall describe the purpose of, procedures for, equipment required and safety precautions appropriate for each method.

(X) The student shall identify the various decontamination methods, the types of decontamination, factors that can affect the decontamination process and resources needed to establish a Contamination Reduction Corridor. The student shall also identify general guidelines for Emergency Decontamination, including sources for selecting appropriate decontamination procedures and solutions.

(Y) The student shall identify guidelines for dealing with injured or trapped persons at a hazardous materials incident.

(Z) The student shall describe Incident Termination and Recovery Practices and Procedures.

(AA) The student shall demonstrate the ability to perform one of the following functions at a simulated hazardous materials incident:

(i) Analyze the simulated hazardous materials incident to determine the problem and predict the outcome;

(ii) Identify and perform the appropriate ICS positions required to manage the simulated incident;

(iii) Utilize appropriate technical references to determine product identification and hazards, chemical protective clothing required, and appropriate tactical operations and decon procedures;

- (iv) Select and use proper chemical protective clothing and equipment;
- (v) Develop and utilize a site safety plan;
- (vi) Develop and utilize an Incident Action Plan;
- (vii) Identify and perform appropriate decontamination procedures;
- (viii) Identify and use the appropriate tools and equipment necessary to mitigate the simulated problem;
- (ix) Identify and use the selected method for identification of the released hazardous material; and,
- (x) Identify and use accepted Standard Operating Procedures for hazardous materials incidents.

(BB) The student shall participate in an Incident Debriefing and a Post Incident Analysis.

(CC) Student shall define the term “hazardous materials”; identify how hazardous materials can harm people, the environment and property; and state the role of the First Responder at the Operations level as defined by Title 8 California Code of Regulations s5192(q)(6)(B).

(DD) Student shall recognize a Haz Mat incident through basic clues, warning signs, placards, labels, shipping papers, and material safety data sheets; identify the hazardous substance(s) present at the incident from a safe distance; understand the need for a positive safety attitude; and, described a safe approach to a Haz Mat incident.

(EE) Student shall describe first responder awareness actions, understanding the need for responder safety, isolation of the incident scene, the need for additional resources and making required notifications.

(FF) Student shall identify the purpose and need to safely initiate command; describe basic identification and assessment techniques; demonstrate the use of the Department of Transportation North American Emergency Response Guidebook (current DOT NAERG) for basic action planning.

(GG) Student shall identify the need and method to communicate and coordinate with typical agencies from all levels of government having authorized activities dealing with a Haz Mat event, citing those agencies, their roles/responsibilities and capabilities.

(2) Certified curriculum for Hazardous Materials Emergency Response Technician -Private Industry Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Technician -Private Industry Course shall be 40 hours in length if the class participants have not had First Responder Operations training meeting the minimum competencies specified in Title 8, California Code of Regulations, Section 5192(q). If all of the class participants have had such training and present proof of that to the Course Manager then the minimum hours for a Certified Course may be 24 hours. A Certified Course 24 hours in length may delete the following course objectives from this Section: (I), (M), (N), (U), (W), and (CC)-(GG). A Certified Course shall include the below listed training exercises. All training exercises for this course should focus on procedures, products and facilities in use at the site and/or industry.

(A) Participation in an Introduction to Protective Clothing Exercise, including successful completion of the following objectives:

- (i) Student shall identify and discuss the basic concept of chemical protective clothing, component parts, types of manufacturer, and the importance of compatibility charts.
- (ii) Student shall identify and discuss the basic concept of respiratory devices, component parts, types of respiratory devices, and the importance of their use.
- (iii) Completion of a Practical Course wearing “Level A” or “Level B” complete Chemical Protective Clothing Ensemble. The course shall consist of the following manipulative tasks: Walking on uneven ground, negotiate under a low object, climb a ladder, plug and patch a container, insert a drum bung, bond and ground a drum, over-pack a drum.

(B) Participation in an Introduction to Levels of Chemical Protective Clothing Exercise including successful completion of the following objectives:

(i) Student shall identify and discuss the basic concept of levels of chemical protective clothing; and,

(ii) Student shall identify different systems, and explain which one is the most appropriate for use in their workplace.

(C) Participation in an Introduction to Monitoring and detection Device Exercise, including successful completion of the following objective:

(i) Student shall identify, discuss and use monitoring and detection devices and identify and evaluate the meter readings from six (6) unknown chemicals.

(D) Participation in an Introduction to Offensive and Defensive Control Options Exercise, including successful completion of the following objective:

(i) Student shall identify, discuss and perform the basic concepts of plugging, patching and containment.

(E) Participation in an evaluation scenario including successful completion of the following objectives:

(i) Analyze the simulated hazardous materials incident to determine the problem and predict the outcome;

(ii) Identify and perform the appropriate positions within the Incident Command System required to manage the simulated incident;

(iii) Identify and utilize the technical references used for providing information for product identification, chemical protective clothing selection, tactical operations and decontamination procedures;

(iv) Select and use proper chemical protective clothing (CPC), and equipment;

(v) Develop and utilize a Site Safety Plan;

(vi) Develop and utilize an Incident Action Plan;

(vii) Identify and perform appropriate decontamination procedures;

(viii) Identify and use the selected method for field identification of the simulated released hazardous material;

(ix) Identify and use the accepted standard operating procedures for hazardous materials incidents; and,

(x) Participate in a post-scenario analysis.

(4) Certified curriculum for Hazardous Materials Emergency Response Technician -Private Industry Course shall include the following evaluation method:

(A) Completion of the CSTI certified Haz Mat Emergency Response Technician - Private Industry Course Final Exam with a minimum passing score of 70% correct.

(5) The following materials/training aids/equipment are required for teaching the Hazardous Materials Emergency Response Technician -Private Industry Course:

(A) Student Text Books (one per student).

(i) If the Course Manager conducts the class in 40 hours they shall use the Hazardous Materials Emergency Response Technician -Private Industry Student Notebook.

(ii) If the Course Manager conducts the class in 24 hours they shall use the Hazardous Materials Emergency Response Technician -Private Industry (24 Hour) Student Notebook.

(B) Reference Materials (one copy per every 10 students)-

(i) NIOSH Pocket Guide to Chemical Hazards (current edition);

(ii) Department of Transportation North American Emergency Response Guidebook (current edition);

(iii) An appropriate Material Safety Data Sheet for a chemical used at the facility and/or industry involved;

(iv) California Hazardous Materials Incident Contingency Plan (current edition).

(C) Monitoring equipment used at the facility and/or industry involved (one each for demonstration).

(D) Chemical protective clothing used at the facility and/or industry involved (one each for demonstration).

(E) Chemical protective clothing, of the Level and type used at the facility and/or industry involved, for student use. The course manager shall ensure that there are sufficient suits on hand to ensure that no suit is worn twice without being cleaned and disinfected.

(F) Forms used at the facility and/or industry involved, including but not limited to:

(i) Medical Monitoring Form;

(ii) Site Safety Plan;

(iii) Current ICS Forms, including:

a. Form 201 Incident Briefing,

b. Form 202 Incident Objectives,

c. Form 205 Incident Radio Communications Plan, and

d. Form 214 Unit Log.

(G) Decontamination equipment used at the facility and/or industry involved.

(H) Miscellaneous:

(i) A device to indicate approximate wind direction and velocity;

(ii) Methods of restricting access to the simulated control zones;

(iii) Devices or methods of communication between the simulated incident commander, simulated response team and exercise facilitators;

(iv) Incident Command vests for at least the following ICS positions:

a. Haz Mat Group Supervisor,

b. Assistant Safety Officer,

c. Entry Leader,

d. Decon Leader,

e. Technical Reference Leader,

f. Site Access Leader, and

g. Safe Refuge Area Manager.

(6) Certification for participants in the Hazardous Materials Emergency Response Technician - Private Industry Course shall include all of the following:

(A) Successful completion of the certified course, as referenced in Section 2520 (t);

(B) Successful completion of the certified course as referenced in Section 2520 (t) as coordinated by a CSTI Haz Mat Section faculty member; and,

(C) Attend 40 hours of training as defined by Title 19 s 2540(j)(4), except as noted in Paragraph (3) of this Section and accomplish all course objectives as referenced in Section 2520 (t).

(u) Hazardous Materials Emergency Response - Advanced Environmental Crimes Investigations.

(1) Certified curriculum for Hazardous Materials Emergency Response Advanced Environmental Crimes Investigations Course shall include all of the following course objectives:

(A) Student shall recognize an environmental crime scene and follow recognized principles of toxicology, chemistry and sampling while conducting the field investigation.

(B) Student shall identify areas of the crime scene which would require sampling, obtain an enforcement sample and recognize the type of laboratory analysis needed to prove the case.

(C) Student shall conduct advanced chemical field testing and identify a series of unknown chemicals by chemical name, DOT hazard class and properties.

(D) Student shall use the principles of advanced investigation techniques to identify the suspects in a complex investigation.

(E) Student shall apply the principles of advanced interviewing skills.

(F) Student shall be familiar with the requirements of conducting undercover operations.

(G) Student shall become familiar with the skills necessary to conduct surveillance operations.

(H) Student shall outline the investigative steps necessary to conduct a complex environmental crimes case, collect evidence, explain the process for obtaining search warrants and deliver an oral briefing of the case.

(I) Student shall understand how to conduct an ethical investigation and know the steps of developing an environmental policy.

(J) Student shall identify legal trends and legislative updates.

(K) Student shall know how to conduct successful task force operations.

(2) Certified curriculum for Hazardous Materials Emergency Response Advanced Environmental Crimes Investigations Course shall be 40 hours in length and shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials Emergency Response Advanced Environmental Crimes Investigations Course shall include the following training exercises:

(A) Demonstrate proper procedures for field sampling; and,

(B) Demonstrate proper procedures for advanced chemical field testing; and,

(C) Demonstrate ability, through the gathering of information, collection of data from sampling, review of witness statements, to form opinions and determine the correct recommendations for criminal or civil filing of the case.

(4) Certification for participants in the Hazardous Materials Emergency Response Advanced Environmental Crimes Investigations Course shall include successful completion of a certified course as referenced in Section 2520 (u) as delivered by a CSTI certified instructor as referenced in Section 2530. Student shall attend 40 hours of training as defined by Title 19 s 2540(j)(4), accomplish all objectives, and participate in training exercises as referenced in Section 2520 (u).

(v) Hazardous Materials Emergency Response - Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders.

(1) Certified curriculum for Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course shall include all of the following course objectives:

(A) Student shall describe the recognition clues for determining the hazards present to the responder and patients at a hazardous materials incident.

(B) Student shall describe the need for appropriate decontamination of personnel, patients and equipment, including the ability to identify situations which present risks from secondary contamination.

(C) Student shall identify the role of Emergency Medical Service personnel at a hazardous materials incident.

(D) Student shall identify and describe the Emergency Medical Service component at a hazardous materials incident.

(E) Student shall demonstrate identification and hazard assessment techniques.

(F) Student shall demonstrate use of the current edition of the North American Emergency Response Guidebook in order to initiate basic action planning.

(G) Student shall describe the need for, types, selection criteria and limits of personal protective equipment commonly used at a hazardous materials emergency.

(H) Student shall describe the preparation necessary for receiving patients who have been exposed to hazardous materials, and the treatment considerations for the patient who has been exposed to hazardous materials.

(I) Student shall describe the monitoring steps and elements of medical support for hazardous materials response personnel.

(J) Student shall identify patient needs assessment techniques and describe the appropriate level of emergency medical care at a hazardous materials incident.

(K) Student shall identify the actions required to terminate a hazardous materials incident.

(3) Certified curriculum for the Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course shall be a minimum of 16 hours in length and shall include all of the course material listed in Section 2540(t).

(4) Certified curriculum for the Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course shall include the following training exercise:

(A) Participation in a table-top exercise including successful completion of the following objectives:

(i) Demonstrate identification and hazard assessment techniques;

(ii) Demonstrate use of the current version of the North American Emergency Response Guidebook in order to initiate basic action planning.

(5) Certified curriculum for the Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course shall include the following evaluation method:

(A) Completion of a CSTI certified Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course written exam with a minimum passing score of 70% correct.

(6) Certification for participants in the Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Course shall include successful completion of a certified course as referenced by Section 2520 (v) as delivered by a CSTI certified instructor as referenced in Section 2530. Student shall meet a minimum attendance of 16 hours, accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in Section 2520 (v).

(w) Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care

(1) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care shall include all of the following course objectives:

(A) Student shall recognize a Haz Mat incident through basic clues, warning signs, placards, labels, shipping papers, and material safety data sheets; understand need for a positive safety attitude; and, describe a safe approach to a Haz Mat incident.

(B) Student shall describe first responder operations actions, with an understanding of the need for safety, isolation and making required notifications to a hazardous materials incident.

(C) Student shall identify the purpose and need to safely initiate command; describe the basic implementation of the Incident Command System (ICS) and the Hospital Emergency Incident Command System (HEICS), cite basic identification and assessment techniques; demonstrate the use of the current edition of the Emergency Response Guidebook or other appropriate reference sources for basic action planning.

(D) Student shall explain the need for, types, selection criteria and limits of protective equipment commonly used in Haz Mat incidents.

(E) Student shall identify need for the appropriate field decontamination of victims, emergency response/facility personnel and equipment, in order to avoid additional contamination; and cite the requirements for proper disposal and documentation during a hazardous materials response.

(F) Student shall describe proper procedures for the set up of a decontamination area at their Emergency Department should a contaminated victim of Hazardous Materials walk in.

(G) Student shall cite the health effects that Hazardous Materials present to the first responder's life and safety.

(H) Student shall describe methods to determine what types of Hazardous Materials are used by the healthcare facility and local industries in order to plan for Hazardous Materials victims in their Emergency Department.

(I) Student shall describe the value, methods and limitations of stabilizing the Haz Mat incident through safe containment; and, describe the proper protective action and rescue options available to first responders, within their capabilities and resources.

(J) The student shall understand the need for Decontamination training for First Responders at the Operations Level.

(K) The student shall understand the basic principles of decontamination. The student shall understand the protocols for performing Patient Decontamination.

(L) The student shall participate in a demonstration, walk-through and practice of decontamination protocols, to aid in the ability to set-up Patient Decontamination per the student's employer's guidelines or generic Decontamination Standard Operating Procedure.

(M) The student shall understand the personal protective equipment protocols and safety issues associated with Primary Decontamination.

(N) Student shall identify the need and method to communicate and coordinate with typical agencies from all levels of government having authorized activities dealing with a hazardous materials event, citing those agencies, their roles/responsibilities and capabilities.

(2) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care shall be a minimum of 16 hours in length and shall include all of the course material listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care shall include the following training exercises:

(A) Demonstrate proper use of the current edition of the Emergency Response Guidebook or other appropriate reference sources to include the successful completion of the following objectives:

(i) Student shall determine hazards to the first responder and Hazardous Materials victim.

(ii) Student shall determine if personal protective equipment is appropriate.

(B) The student shall participate in an activity requiring them to properly don and doff appropriate chemical protective clothing (CPC) and an activity requiring them to complete a practical exercise involving the performance of common manipulative tasks while wearing the appropriate CPC. The student shall understand proper medical monitoring procedures and applicable hand signals before participating in any activity while wearing CPC.

(C) The student shall perform Primary Decontamination, in appropriate chemical protective clothing per the student's employer's guidelines or generic Decontamination Standard Operating Procedure.

(D) The student shall review, and if possible improve, their own or a generic Decontamination Standard Operating Procedure based on the key course content.

(4) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care shall include the following evaluation method:

(A) Completion of a CSTI certified Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care written exam with a minimum passing score of 70% correct.

(5) Certification for participants in the Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care Course shall include successful completion of a certified course as referenced by Section 2520(w) as delivered by a CSTI certified instructor as referenced in Section 2540. Student shall meet a minimum attendance of 16 hours, accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in Section 2520(e).

(x) Hazardous Materials Emergency Response First Responder Operations - Decontamination

(1) Certified curriculum for Hazardous Materials Emergency Response First Responder Operations - Decontamination Course shall include all of the following course terminal objectives:

(A) The student shall understand the need for Decontamination training for First Responders at the Operations Level.

(B) The student shall understand the basic principles of decontamination.

(C) The student shall understand the protocols for performing Primary Decontamination, consistent with the FIREScope Incident Command System.

(D) The student shall participate in a demonstration, walk-through and practice of decontamination protocols, to aid in the ability to set-up a Primary Decon "Contamination Reduction Corridor," per the student's employer's guidelines or generic Decontamination Standard Operating Procedure.

(E) The student shall understand the personal protective equipment protocols and safety issues associated with Primary Decontamination.

(F) The student shall participate in an activity requiring them to properly don and doff "Level B" personal protective equipment and an activity requiring them to complete a practical exercise involving the performance of common manipulative tasks while wearing "Level B" personal protective equipment. The student shall understand proper medical monitoring procedures and applicable hand signals before participating in any activity while wearing "Level B" personal protective equipment.

(G) The student shall perform Primary Decontamination, in "Level B" personal protective equipment per the student's employer's guidelines or generic Decontamination Standard Operating Procedure.

(H) The student shall review, and if possible improve, their own or a generic Decontamination Standard Operating Procedure based on the key course content.

(2) Certified curriculum for the Hazardous Materials Emergency Response First Responder Operations - Decontamination Course shall include all of the current course material listed in Section 2540(t).

(3) Certified curriculum for the Hazardous Materials Emergency Response First Responder Operations - Decontamination Course shall be a minimum of 8 hours in length and shall include the below listed training exercises.

(A) The student shall participate in an activity requiring them to properly don and doff "Level B" personal protective equipment and an activity requiring them to complete a practical exercise involving the performance of common manipulative tasks while wearing "Level B" personal protective equipment. While performing this activity, they must traverse a distance of at least 200 feet.

(B) Student shall participate in a "Functional Decon Exercise," performing Primary Decontamination, per the student's or generic Decontamination Standard Operating Procedure, that meets the following objectives:

(i) Demonstrate safe operations throughout the exercise;

(ii) Demonstrate selection of a safe Contamination Reduction Corridor, and demonstrate setting up the corridor, including all necessary equipment needed for Primary Decon;

(iii) Demonstrate the safe and effective management and performance of Primary Decon procedures, ensuring “Level B” personal protective equipment in the Contamination Reduction Corridor;

(iv) Demonstrate the proper use of control zones, and maintain proper personal protective equipment for all personnel within all of those zones; and,

(v) Participate in a post-exercise debriefing.

(4) Certified curriculum for Hazardous Materials Emergency Response First Responder Operations - Decontamination Course shall include the following evaluation method:

(A) Completion of the current CSTI certified Hazardous Materials Emergency Response First Responder Operations - Decontamination Course Final Exam with a minimum passing score of 70% correct.

(5) The following materials/training aids/equipment are required for teaching the Hazardous Materials Emergency Response First Responder Operations - Decontamination Course:

(A) Student Text Books (one per student).

(B) Decontamination equipment to support the student’s employer’s guidelines or generic Decontamination Standard Operating Procedure.

(C) Chemical Protective Clothing, and Self Contained Breathing Apparatus, used at the facility and/or agency involved, or “Level B” personal protective equipment (one each for demonstration).

(D) Medical Monitoring equipment to support the level of Chemical Protective Clothing and Self Contained Breathing Apparatus used at the facility and/or agency involved, or “Level B” personal protective equipment.

(E) Forms used at the facility and/or agency involved, including but not limited to:

(i) Medical Monitoring Form; and

(ii) Site Safety Plan.

(6) Certification for participants in the Hazardous Materials Emergency Response First Responder Operations - Decontamination Course shall include all of the following:

(A) Successful completion of the certified course, as referenced in Section 2520 (x) as delivered by a CSTI certified instructor as referenced by 2530;

(B) Meet a minimum attendance of 8 hours and accomplish all course objectives as referenced in Section 2520 (x); and

(C) Complete the evaluation method at the 70% standard as referenced in Section 2520(x).

(y) Hazardous Materials Emergency Response - First Responder Awareness - Nuclear, Biological and Chemical Agents.

(1) Certified curriculum for First Responder Awareness--Nuclear, Biological and Chemical Agents course shall include all of the following course objectives:

(A) Cite and describe the general types of nuclear, biological, and chemical (NBC) weapons and agents. State the hazards each present to first responders.

(B) State the indicators that would help a first responder recognize when an incident may involve NBC weapons or agents.

(C) Describe the three basic First Responder actions upon discovery of an incident that potentially involves NBC weapons or agents.

(2) Certified curriculum for First Responder Awareness--Nuclear, Biological and Chemical Agents course shall include all of the current course material listed in Section 2540(t).

(3) A First Responder Awareness -Nuclear, Biological and Chemical Agents course certified under these regulations shall be a minimum of four (4) hours in length.

(4) Certified curriculum for First Responder Awareness -Nuclear, Biological and Chemical Agents course shall include the following training exercise:

(A) Participation in a table-top exercise including successful completion of the following objectives:

- (i) Recognize the potential presence of a Nuclear, Biological or Chemical agent; and,
 - (ii) Identify safety precautions to take at the First Responder Awareness Level; and,
 - (iii) Identify required notifications the First Responder Awareness shall make.
- (5) Certification for participants in First Responder Awareness -Nuclear, Biological and Chemical Agents course shall include successful completion of a certified course as referenced in section 2520(y) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of four (4) hours, and accomplish all objectives and participate in the required exercise.

(z) Hazardous Materials Emergency Response - First Responder Operations - Nuclear, Biological and Chemical Agents.

- (1) Certified curriculum for First Responder Operations -Nuclear, Biological and Chemical Agents course shall include all of the following course objectives:
- (A) Cite and describe the general types of Nuclear, Biological, and Chemical (NBC) weapons and agents. State the hazards each present to first responders. Describe the past use of such agents by terrorists or others.
 - (B) State the indicators that would help a first responder recognize when an incident may involve NBC weapons or agents.
 - (C) Describe basic First Responder actions upon discovery of an incident that potentially involves NBC weapons or agents. State basic actions to follow for each general type of NBC agent. Identify sources of assistance and/or information for such incidents.
- (2) Certified curriculum for First Responder Operations -Nuclear, Biological and Chemical Agents course shall include all of the current course material listed in Section 2540(t).
- (3) A First Responder Operations -Nuclear, Biological and Chemical Agents course certified under these regulations shall be a minimum of six (6) hours in length.
- (4) Certified curriculum for First Responder Operations -Nuclear, Biological and Chemical Agents course shall include the following training exercise:
- (A) Participation in a table-top exercise including successful completion of the following objectives:
 - (i) Recognize the potential presence of a Nuclear, Biological or Chemical agent; and,
 - (ii) Identify response actions, including safety procedures, isolation distances, required notifications and agencies and resources needed; and,
 - (iii) Conduct safe identification and assessment using the current Emergency Response Guidebook.
 - (B) At the discretion of the course manager, if the student has not demonstrated all the objectives in (z)(4)(A) above, the course manager may require the student to take a CSTI certified FRO NBC written exam with a passing score of 70%.
- (5) Certification for participants in First Responder Operations -Nuclear, Biological and Chemical Agents course shall include successful completion of a certified course as referenced in section 2520(z) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of six (6) hours, accomplish all objectives and participate in the required exercise, and or complete the CSTI certified FRO NBC exam at or above the 70% standard as referenced in 2520(z)(4)(B).

(aa) Haz Mat Emergency Response - Incident Commander -Nuclear, Biological and Chemical Agents.

- (1) Certified curriculum for Incident Commander -Nuclear, Biological and Chemical Agents course shall include all of the following course objectives:
- (A) Cite and describe the general types of Nuclear, Biological, and Chemical (NBC) weapons and agents. State the hazards each present to first responders. Describe the past use of such agents by terrorists or others

(B) State the indicators that would help a first responder recognize when an incident may involve NBC weapons or agents.

(C) Describe the similarities and differences between a hazardous materials incident, a mass casualty incident and an incident involving nuclear, biological or chemical (NBC) agents and identify the issues that make an NBC incident different from other emergency response incidents.

(D) Identify the role and responsibilities of an Incident Commander in an incident involving NBC agents.

(E) Cite the federal and state plans that apply to incidents involving NBC agents.

(F) Identify local, state and federal agencies that are most likely to respond to an incident involving NBC agents. State the response times expected for these agencies.

(G) Compare and contrast the Incident Command System and the Federal Bureau of Investigation's NBC response organization. Explain the need and benefits of unified command in an incident involving NBC agents.

(H) Identify at least 5 "Special/Unique" management issues the Incident Commander will address in managing a valid NBC incident.

(2) Certified curriculum for Incident Commander -Nuclear, Biological and Chemical Agents course shall include all of the current course material listed in Section 2450(t).

(3) An Incident Commander -Nuclear, Biological and Chemical Agents course certified under these regulations shall be a minimum of six (6) hours in length.

(4) Certified curriculum for Incident Commander -Nuclear, Biological and Chemical Agents course shall include the following training exercise:

(A) Given a Nuclear, Biological, or Chemical agent incident, students will participate in a table-top exercise including successful completion of the following objectives:

(i) Recognize the potential presence of a Nuclear, Biological or Chemical agent, including the primary hazard of the agent involved; and,

(ii) Identify safety concerns, management issues, preparedness issues and government resources needed; and,

(iii) Identify ICS positions needed to manage the response to an incident involving NBC agents; and,

(iv) Address and resolve at least one "special/unique" management issue given by the instructor.

(B) At the discretion of the course manager, if the student has not demonstrated all the objectives in (aa)(4)(A) above, the course manager may require the student to take a CSTI certified Haz Mat Emergency Response - Incident Commander - Nuclear, Biological and Chemical Agents written exam with a passing score of 70%.

(5) Certification for participants in Incident Commander -Nuclear, Biological and Chemical Agents course shall include successful completion of a certified course as referenced in section 2520(aa) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of eight (8) hours, accomplish all objectives and participate in the required exercise, and/or complete the CSTI certified Haz Mat Emergency Response - Incident Commander - Nuclear, Biological and Chemical Agents (at or above the 70% standard) as referenced in 2520(aa)(4)(B).

(bb) Hazardous Materials Emergency Response - Clandestine Methamphetamine Laboratory First Responder Awareness

(1) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Awareness Course shall include all of the following course objectives.

(A) Student shall recognize the general hazards of clandestine methamphetamine laboratories.

(B) Student shall recognize the risks associated with clandestine methamphetamine laboratories and the potential for negative outcomes they present to first responders.

(C) Student shall recognize the risks associated with clandestine methamphetamine laboratories at the Awareness level.

(D) Student shall recognize basic clues or indicators which may include identifying a vehicle, building, room or other location as a possible clandestine methamphetamine laboratory.

(E) Student shall describe first responder actions upon discovering a clandestine methamphetamine laboratory and state procedures to ensure responder safety, isolate the scene and make necessary notifications.

(2) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Awareness shall be a minimum of 4 hours in length.

(3) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Awareness shall include a tabletop exercise involving the recognition of a clandestine methamphetamine laboratory.

(4) Certification for participants in the Clandestine Methamphetamine Laboratory First Responder Awareness Course shall include successful completion of the certified course as referenced in section 2520 (aa) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of 4 hours, accomplish all objectives, and participate in the training exercise. NOTE: Certification in the Clandestine Methamphetamine Laboratory First Responder Awareness Course is not equivalent to certification in as First Responder Awareness Level as defined in section 2520(a).

(cc) Hazardous Materials Emergency Response - Clandestine Methamphetamine Laboratory First Responder Operations

(1) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Operations Course shall include all of the following course objectives.

(A) Student shall recognize the general hazards of clandestine methamphetamine laboratories.

(B) Student shall recognize the risks associated with clandestine methamphetamine laboratories and the potential for negative outcomes they present to first responders.

(C) Student shall describe the role of first responders at clandestine methamphetamine laboratories at the Awareness level.

(D) Student shall recognize basic clues or indicators, identify a vehicle, building, room or other location as a possible clandestine methamphetamine laboratory.

(E) Student shall describe first responder actions upon discovering a clandestine methamphetamine laboratory and state procedures to ensure responder safety, isolate the scene and make necessary notifications.

(F) Student shall describe first responder actions upon discovering a clandestine methamphetamine laboratory and state procedures to ensure responder safety, isolate the scene and make necessary notifications.

(G) Student shall identify the purpose and need to safely initiate command and explain the purpose and procedures of scene control; describe the basic implementation of the appropriate site specific Incident Command System (ICS); and, demonstrate proper information flow from the First Responder to the Incident Commander.

(H) Student shall explain the need for, types, selection criteria and limits of protective equipment commonly used in incidents involving clandestine methamphetamine laboratories.

(I) Student shall describe safe defensive action options available to the First Responder and explain the protective action options available.

(J) Student shall identify the need for and describe procedures to implement the appropriate decontamination of victims, emergency response personnel and equipment.

(K) Student shall describe proper disposal and documentation procedures for responses to incidents involving clandestine methamphetamine laboratories.

(L) Student shall identify the need and describe the methods to communicate and coordinate with typical government agencies which respond to incidents involving clandestine methamphetamine laboratories. The student shall cite those agencies and describe their roles, responsibilities and capabilities.

(M) Student shall state the health effects that clandestine methamphetamine laboratories present to the First Responder's life and health.

(2) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Operations shall be a minimum of 8 hours in length.

(3) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Operations shall include a tabletop exercise involving the recognition of a clandestine methamphetamine laboratory.

(4) Certified curriculum for Clandestine Methamphetamine Laboratory First Responder Operations Course shall include the following evaluation method:

(A) Completion of a CSTI certified Clandestine Methamphetamine Laboratory First Responder Operations written exam with a minimum passing score of 70% correct.

(5) Certification for participants in the Clandestine Methamphetamine Laboratory First Responder Operations Course shall include successful completion of the certified course as referenced in section 2520 (bb) as delivered by a CSTI certified instructor as referenced in section 2530. Student shall meet a minimum attendance of 8 hours, accomplish all objectives, participate in the training exercise, and complete the evaluation method at the 70% standard as referenced in 2540(e). NOTE: Certification in the Clandestine Methamphetamine Laboratory First Responder Operations Course is not equivalent to certification in as First Responder Operations Level as defined in section 2520(b).

(dd) Hazardous Materials Emergency Response -Mass Casualty Decontamination:

(1) Certified curriculum for Mass Casualty Decontamination shall include all of the following objectives:

(A) Students will demonstrate an understanding of the cultural diversity that exists in their response areas and how that would relate to a mass decontamination process;

(B) Students shall recognize the need to protect the modesty of the general public when decontamination is required;

(C) Students shall recognize the challenges presented by multiple languages be used at an incident scene;

(D) Students shall demonstrate an understanding of what decontamination problems are presented by the various chemical, biological and radiological agents they may encounter;

(E) Students shall identify the need for appropriate field decontamination of victims, emergency response personnel and equipment in order to avoid additional contamination;

(F) Students shall identify the differences between Emergency and Planned Decontamination and indicate when they should be used in mass decontamination situations;

(G) Students shall identify methods of accessing technical experts and reference sources in determining the need for decontamination;

(H) Students shall become familiar with the various types of equipment that can be purchased or improvised to assist in mass casualty decontamination incidents;

(I) Students shall recognize the problems associated with the transportation of large numbers of victims, and the need to insure adequate decontamination has been performed prior to transport; and

(J) Students shall recognize the needs, operational procedures and limitations of their local hospitals and emergency departments.

(2) Certified curriculum for Mass Casualty Decontamination shall be a minimum of 8 hours in length and include all of the course material listed in Section 2540(t):

(3) Certified curriculum for Mass Casualty Decontamination shall include the following training exercises:

(A) Demonstrate the selection and use of the proper level of chemical protective clothing;

(B) Demonstrate the ability to utilize and set up assorted commercial mass casualty decontamination modesty structures;

(C) Demonstrate the ability to improvise modesty structures at an incident using available vehicles and equipment typically carried on fire apparatus;

(4) Certified curriculum for Mass Casualty Decontamination shall include the following evaluation method:

(A) Completion of the certified Mass Casualty Decontamination Course and participation in the hands on field exercises.

(5) Certification for participants in the Mass Casualty Decontamination Course shall include successful completion of a certified course as referenced by Section 2520(dd), delivered by a CSTI instructor as referenced in Section 2530. Students shall meet a minimum attendance of 8 hours, accomplish all objectives and participate in the field training exercises referenced in Section 2520(dd)

(ee) Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course.

(1) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course shall include all of the following course objectives:

(A) A fundamental understanding of federal, state, and local emergency response and management principles associated with a Weapons of Mass Destruction (WMD) incident or hazardous materials (Haz Mat) release;

(B) An understanding of fundamental terms and definitions associated with WMD and Haz Mat;

(C) An understanding of the nature of WMD and Haz Mat including the risks and potential negative outcomes associated with their release;

(D) An understanding of potential roles and responsibilities of law enforcement personnel who are trained at a First Responder Operations Level to support a coordinated public safety response to a WMD incident or Haz Mat release;

(E) An understanding of the issues associated with deploying a Mobile Field Force within the control zones of a WMD incident or Haz Mat release;

(F) Knowledge of devices and hazardous substances terrorists are likely to employ to create a WMD incident;

(G) The ability to recognize, identify, and assess the signs, symptoms, characteristics, and indicators that a WMD or a Haz Mat is present or has been released;

(H) An understanding of the adverse effects on persons associated with a WMD incident or Haz Mat release;

(I) A basic understanding of pertinent laws and regulations associated with Haz Mat training, emergency response, with an emphasis on Level C chemical protective clothing (as defined in subsection (ee)(3)(A)1.-6.) and respiratory protection requirements;

(J) An understanding of selection criteria, limitations, and capabilities of chemical protective clothing with an emphasis on Level C;

(K) An understanding of the medical considerations associated with utilizing chemical protective clothing;

(L) The ability to correctly don and doff a Level C chemical protective clothing ensemble;

(M) The ability to effectively perform law enforcement-related manipulative tasks while wearing a level C chemical protective clothing ensemble;

(N) The ability to use the current U.S. Department of Transportation (DOT) Emergency Response Guidebook (ERG) to identify hazards and establish initial isolation and evacuation distances;

(O) The ability to recognize the need for additional specialized resources and to initiate the appropriate notifications;

(P) An awareness of basic containment, control, and rescue techniques employed by responders to a WMD incident or Haz Mat release;

(Q) An understanding of the concept of “risk versus gain” with respect life safety decisions;

(R) An understanding of emergency and planned decontamination concepts and methods;

(S) An awareness of the need for appropriate incident documentation;

(T) An awareness of Haz Mat disposal issues (e.g., scene clean-up and remediation); and

(U) An understanding of the roles, responsibilities, coordination and capabilities of Haz Mat incident response agencies.

(2) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course shall be a minimum of 16 hours in length and shall include all course materials listed in Section 2540(t).

(3) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course shall include the following training activities and exercises:

(A) Students shall be required to correctly don and doff a Level C chemical protective clothing ensemble according to a checklist provided by the presenter. All students shall be medically monitored prior to, and immediately following the wearing of chemical protective clothing. Monitoring shall be accomplished by recording vital signs (i.e., blood pressure, respirations, pulse rate, and temperature) every time training in chemical protective clothing occurs. A follow-up set of vital signs shall be acquired and recorded after performing tasks in chemical protective clothing. The ensemble shall minimally consist of the following:

1. Chemical protective garment
2. Air Purifying Respirator (APR)
3. Over-boots
4. Inner Gloves
5. Outer Gloves
6. Chemical Tape

(B) While wearing a Level C chemical protective clothing ensemble and a standard law enforcement utility belt, students shall be required to perform a series of law enforcement-related manipulative tasks that may include, but are not necessarily limited to the following:

1. Searching persons
2. Suspect control and handcuffing
3. Drawing, handling, and re-holstering firearms
4. Use of Impact Weapons
5. Use of hand and arm signals
6. Use of communications devices
7. Writing
8. Individual and team movement
9. Crowd control tactics

(C) While wearing a Level C chemical protective clothing (CPC) ensemble, the student shall cycle through a planned decontamination process.

1. It is recommended that this activity involve an actual wet decontamination line to permit students to experience a realistic example of a mass decontamination process and to evaluate the efficacy of their chemical protective clothing.

(D) Given a current edition of the U.S. Department of Transportation (DOT) Emergency Response Guidebook (ERG) and criteria provided by the presenter regarding a mock event, the student shall use the ERG to identify anticipated hazards and determine initial isolation and protective action distances.

(E) Given a tabletop exercise and supporting references provided by the presenter, students shall participate individually or in groups in order to demonstrate their understanding of the following:

1. Proper personal safety considerations
2. Minimum isolation distances
3. Notification requirements
4. Information available from the ERG
5. Appropriate protective actions, if required (e.g., evacuations, in-place protection, etc.)
6. Briefing the appropriate authorities regarding on-scene actions and conditions

(F) Given a field scenario involving the simulated release of a WMD agent or hazardous material, students shall be required to perform a series of law enforcement-related tasks, as dictated by the incident, which may include any of the following:

1. Pre-response planning
2. Correctly donning a Level C CPC ensemble
3. Responding to the incident scene as part of a Mobile Field Force Team
4. Providing security for the decontamination process and other first responders at the scene
5. Assisting the movement of incapacitated persons from an emergency decontamination area to the planned decontamination area
6. Providing for officer safety and weapon security
7. Operating as a member of a designated arrest team
8. Cycling through a planned decontamination line
9. Correctly doffing the CPC
10. Post-response debriefing and critique

(G) Students shall participate in exercises and activities involving:

1. Completing an activity involving the use of the current Department of Transportation Emergency Response Guidebook
2. Respond to a simulated WMD/ Haz Mat incident and perform a variety of law enforcement functions, to include decontamination, while in Level C chemical protective clothing ensemble and tactical equipment
3. Don and doff Level C chemical protective clothing ensembles and performing basic law enforcement functions and tasks in response to a simulated WMD incident

(4) Certification for participants in the Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course shall include successful completion of a certified course as referenced in section 2520(ee) as delivered by a CSTI certified instructor (as referenced in section 2530). Student shall meet a minimum attendance of 16 hours, accomplish all objectives, participate in training exercises and complete the evaluation method at the 70% standard as referenced in section 2520(ee).

(ff) Hazardous Materials, Weapons of Mass Destruction Terrorism for the Technician/ Specialist Course

(1) Course Prerequisite: This course is directed to the Hazardous Materials Technician and Specialist Levels. Students must provide evidence of current certification to the Hazardous

Materials Technician or Specialist Level as defined by Title 8 CCR 5192(q)(6)(C) or (D) prior to enrollment.

(2) Certified curriculum for Hazardous Materials, Weapons of Mass Destruction Terrorism for the Technician/ Specialist Course include all of the following course objectives. The terminal objectives for the Hazardous Materials, Weapons of Mass Destruction, Terrorism for the Technician/Specialist Course are to provide students with:

(A) A knowledge of Terrorism, its definition and how it applies to Hazardous Materials Emergency Response;

(B) A knowledge of past terrorism events and lessons learned from those events;

(C) A knowledge of devices and hazardous substances terrorists are likely to employ to create a WMD incident;

(D) A knowledge of Chemical weapons, their health effects, antidotes and treatment;

(E) A knowledge of the sources and composition of Chemical weapons to include; military, Industrial and homebrew;

(F) A knowledge of Biological weapons, their health effects, vaccinations, antidotes, treatment, and mortality;

(G) A knowledge of Biological weapons, their persistence and contagiousness;

(H) A knowledge of the sources and composition of Biological weapons to include; military, Industrial and homebrew;

(I) A knowledge of Nuclear weapons and their health effects;

(J) A knowledge of the sources and composition of Nuclear weapons to include; military and improvised;

(K) A knowledge of Radiation Dispersal weapons, their health effects and treatment;

(L) A knowledge of the sources and composition of Radiation Dispersal weapons to include; military, Industrial and homebrew;

(M) A knowledge of the types of radiation, its health effects and protective actions;

(N) A knowledge of the sources radioactive materials to include facilities, transportation and packaging;

(O) A knowledge of the sources and composition of Explosives to include; military industrial and homebrew;

(P) A knowledge of the types of explosive devices to include dispersal devices;

(Q) A knowledge of the types of secondary explosive devices and suicide bomber devices;

(R) A knowledge of atmospheric monitoring equipment and its application to WMD including its limitations, and method of use;

(S) A knowledge of chemical and biological detection systems;

(T) A knowledge of the detection systems using color change technology to include test papers, badges, the military 256 kit and smart cards;

(U) A knowledge of the available qualitative analysis systems including Gamma Mass Spectrometry, Mass Spectrometry, Infrared and Field Microscopy;

(V) A knowledge of the available systems for field identification of chemical unknowns and their application for WMD;

(W) A knowledge of sampling protocols and methods as they apply to WMD;

(X) A knowledge of evidence collection and preservation as applied to WMD;

(Y) A knowledge of Chemical Protective Clothing Standards and how they apply to WMD;

(Z) A knowledge of Respiratory Protection Standards as they apply to WMD;

(AA) A knowledge of respiratory protection equipment including APR's, SCBA's Umbilical Air, Powered Air Purifying Respirators and Medical PAPR hoods;

(BB) A knowledge of Decontamination systems and procedures as they apply to WMD;

(CC) A knowledge of printed and electronic technical reference sources as applied to WMD;

(DD) An understanding of casualty management as it applies to a WMD incident, including Triage, Antidotes, Push pack, MMRS Teams and Hospital considerations;

(EE) The ability to recognize, identify, and assess the signs, symptoms, characteristics, and indicators that a WMD or a Haz Mat is present or has been released;

(FF) Knowledge of available special resources, their abilities and how to access them, to include; Weapons of Mass Destruction Civil Support Teams, National Laboratories, MMRSs, and other local resources;

(GG) A knowledge of the State of California FIRESCOPE Standardized Equipment list for Hazardous Materials Response Units for WMD, and understanding of Hazardous Materials Team Typing as established by the State of California, FIRESCOPE Committee;

(HH) An understanding of the Tactical Considerations for the response to a WMD

(II) An understanding of the roles, responsibilities, coordination and capabilities of Haz Mat incident response agencies;

(JJ) An understanding of Rescue Considerations for the response to a WMD;

(3) Required Student Learning Activities

(A) Given a tabletop exercise involving the release of a chemical agent and supporting references provided by the presenter, students will participate individually or in groups in order to demonstrate their understanding of the following:

1. Initial isolation and protective action distances.
2. Proper Chemical Protective Clothing for Entry/Rescue, Decon Teams.
3. Proper Chemical Protective Clothing for Law Enforcement personnel and medical treatment personnel.
4. Proper decontamination methods for responders and victims.
5. Proper antidotes and/or treatment for exposed patients.
6. Proper Atmospheric Monitoring and or detection equipment for use on scene and for downwind monitoring.

(B) Given a tabletop exercise involving the detonation of a Radiation Dispersal Device and supporting references provided by the presenter, students will participate individually or in groups in order to demonstrate their understanding of the following:

1. Initial isolation and protective action distances.
2. Proper Chemical Protective Clothing for Entry/Rescue, Decon Teams.
3. Proper Chemical Protective Clothing for Law Enforcement personnel and medical treatment personnel.
4. Proper decontamination methods for responders and victims.
5. Proper antidotes and/or treatment for exposed patients.
6. Proper Atmospheric Monitoring and or detection equipment for use on scene and for downwind monitoring.

(C) Given Site specific information on a simulated target hazard and criteria provided by the presenter regarding a mock event, the student will identify and or determine the following as the incident builds;

1. Response routes for Emergency responders.
2. Staging areas.
3. Number of possible victims.
4. Location of receiving hospitals.
5. Location of safe Refuge areas.
6. Resources required for response to potential event.
7. Proper Chemical Protective Clothing for Entry/Rescue, Decon Teams.
8. Proper Chemical Protective Clothing for Law Enforcement personnel and medical treatment personnel.

9. Proper decontamination methods for responders and victims.
 10. Points of egress for potential victims.
 11. Proper Atmospheric Monitoring and or detection equipment for use on scene and for downwind monitoring.
 12. Likely points of entry for terrorist.
 13. Types of weapons that could be used.
- (D) Atmospheric Monitoring and Field identification
1. Use of WMD specific air monitoring and detection Equipment
 2. Use of detection systems using color change technology such as badges, papers, military test kits and smart cards
- (4) Certification for participants in the Hazardous Materials, Weapons of Mass Destruction Terrorism for the Technician/Specialist Course shall include all of the following:
- (A) Successful completion of the certified course, as referenced in Section 2520(ff);
 - (B) Successful completion of the certified course as delivered by a CSTI certified instructor (as referenced in section 2530(o), and;
 - (C) Shall include all of the current course material listed in Section 2540(t), and;
 - (D) Attend a minimum of 16 hours of training.
 - (E) Complete a 25 Question written exam with at least a 70% correct score.

(gg) Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Awareness and Decontamination for Healthcare

(1) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Awareness and Decontamination for Healthcare shall include all of the following course objectives:

- (A) Student shall define the term “hazardous materials”, identify how hazardous materials can harm people, the environment and property: and the role of the First Receiver at the Awareness level in a Healthcare setting using the criteria for the First Responder, Awareness level as set forth in Title 8 California Code of Regulations Section 5192(q)(6)(A).
- (B) Student shall recognize a Haz Mat incident through basic clues, warning signs, placards, labels, shipping papers and material safety data sheets: understand need for a positive safety attitude: and describe a safe approach to a Haz Mat incident.
- (C) Student shall describe first responder awareness actions, with an understanding of the need for safety, isolation and making required notifications in a hazardous materials incident
- (D) Student shall describe the procedure for initiating Directed Self Decontamination for ambulatory victims.

(2) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Awareness and Decontamination for Healthcare shall be a minimum of 4 hours in length and shall include all of the course material listed in Section 2540 (t).

(3) Certified curriculum for Hazardous Materials/ Weapons of Mass Destruction, First Receiver Awareness and Decontamination for Healthcare shall include the following training exercise:

- (A) Demonstration of Directed Self Decontamination

(4) Certified curriculum for Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Awareness and Decontamination for Healthcare shall include the following evaluation method:

- (A) Completion of a CSTI certified Hazardous Materials/ Weapons of Mass Destruction, First Receiver Awareness and Decontamination for Healthcare written exam with a minimum passing score of 70% correct.

(5) Certification for participants in the Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Awareness and Decontamination for Healthcare Course shall include successful completion of a certified course as referenced by Section 2520(gg) as delivered by a CSTI certified instructor as referenced in Section 2530(p). Student shall meet a minimum attendance of 4 hours, accomplish all objectives, participate in the training exercise and complete the evaluation method at the 70% standard as referenced in Section 2540(e)

Note: Authority cited: Section 8574.20(a), Government Code. Reference: Section 8574.20(b), Government Code.

Barclays Official California Code of Regulations
Title 19. Public Safety
Division 2. Office of Emergency Services
Chapter 2. Emergencies and Major Disasters
Subchapter 2. Hazardous Substances Emergency Response Training
This database is current through 1/18/08, Register 2008, No. 3

§2530. Instructor Certification Requirements.

(a) To become a California State Certified Hazardous Materials Instructor for Haz Mat First Responder Awareness/Operations, Haz Mat Incident Commander, Haz Mat Executive Management, Haz Mat Investigations, Haz Mat Environmental Monitoring, or Haz Mat Incidents at Ports, or Haz Mat Emergency Response Incident Commander -Nuclear, Biological and Chemical Agents and Haz Mat Emergency Response First Responder Operations -Nuclear, Biological and Chemical Agents courses, the applicant shall complete all of the following requirements:

(1) Submission of CSTI Application Form, as referenced in Section 2550(a)(11), to the Office of Emergency Services, California Specialized Training Institute; and

(2) Agreement to adhere to the policies, procedures and administrative requirements for delivering, documenting, and certifying the California Hazardous Substances Incident Response Training and Education Program as contained in title 2 of the California Government Code, division 1, chapter 7, sections 8574.19-8574.21 and title 19 of the California Code of Regulations, chapter 1, subchapter 2, sections 2510-2560; and

(3) Successful completion of the certified course(s), as referenced in section 2520(a)-(g) or (y)-(aa) in which the applicant is seeking instructor certification or take a 8 hour CSTI “specialized” train the trainer condensed course on courses listed under section 2520; and

(4) Submission of a resume and supporting documentation describing a minimum of 2 years work experience in hazardous materials response, training, production, investigations, monitoring, or research, or a combination of any six, at the level in which the applicant is seeking instructor certification, as referenced in section 2520(a)-(g) or (y)-(z); and

(5) Successful completion of either (A) or (B):

(A) Hazardous Materials Instructor Certification Course as referenced in section 2520(h); or

(B) Hazardous Materials Instructor Certification For Trainers Course as referenced in section 2520(i); and

(i) California State Fire Marshal Instructor IA and IB Course; or

(ii) University of California or California State University Techniques of Teaching Course; or

(iii) Four semester units of upper division credit in educational materials, methods, or curriculum development from an accredited college, university, community college, or institute; or

(iv) Instructor Certification Course or Teaching Credential from an accredited college, university, community college, or training institute; or

(v) Instructor Certification Course from a nonprofit organization or public agency.

(vi) A letter from the applicant’s immediate supervisor or training officer verifying the applicant’s competence as a hazardous materials trainer as per 29 CFR 1910.120 Appendix E (revised September 21, 1994).

[Technician/Specialist Certification Requirements]

(b) To become a California State Certified Hazardous Materials Technician/Specialist 1B, 1C, 1D, 1F, 1G, Hazardous Waste General Site Worker or Hazardous Materials Emergency Response Technician -Private Industry Instructor, the applicant shall complete all of the following requirements:

(1) Submission of CSTI Application Form, as referenced in Section 2550(a)(11), to the Office of Emergency Services, California Specialized Training Institute; and

(2) Agreement to adhere to the policies, procedures and administrative requirements for delivering, documenting, and certifying the California Hazardous Substances Incident Response Training and Education Program as contained in Title 2 of the California Government Code, Division 1, Chapter 7, Sections 8574.19-8574.21 and Title 19 of the California Code of Regulations, Chapter 1, Subchapter 2, Sections 2510-2560; and

(3) Successful completion of the certified course(s), as referenced in Section 2520(k)-(q), (s) and (t) in which the applicant is seeking instructor certification; and

(4) Submission of a resume and supporting documentation, including written verification from applicant's department head or designee, describing a minimum of 80 hours of teaching experience and a minimum of 3 years work experience in hazardous materials response, training, production, research, investigations or monitoring, or a combination of any six, relating to the subject area in which the applicant is seeking instructor certification, as referenced in Section 2520(k)-(q), (s) and (t). (To become certified to instruct the Hazardous Waste General Site Worker Course, an applicant's 3 years of work experience must be in the field of hazardous waste operations.); and

(5) Successful completion of either one of the following:

(A) Hazardous Materials Instructor Certification Course as referenced in Section 2520(h); or

(B) Hazardous Materials Instructor Certification For Trainers Course as referenced in Section 2520(i); and,

[Technician/Specialist 1A Certification Requirements]

(c) To become a California State Certified Hazardous Materials Technician/Specialist 1A Instructor, the applicant shall complete all of the following requirements:

(1) All of the requirements specified in Section 2530(b); and

(2) Submission of a photocopy, employer verification or valid supporting documentation for the following:

(A) Bachelor of Science, or Masters of Science or doctoral degree in a physical or life science that included at least two upper division semester (or equivalent quarters) courses in chemistry; or

(B) Two upper division semester (or equivalent quarters) courses in college chemistry with a passing grade of "C" or better; and,

(C) Submission of a resume and supporting documentation, including written verification from applicant's department head or designee, describing a minimum of 80 hours of teaching experience and a minimum of three years of work experience in chemistry training, chemical production or chemical research, or a combination thereof.

[FRO-Decon Certification Requirements]

(d) To become a California State Certified Hazardous Materials First Responder Operations - Decontamination Instructor, the applicant shall complete all of the following requirements:

- (1) All of the requirements specified in Section 2530 (a); and
- (2) Complete the Hazardous Materials Emergency Response First Responder Operations Level course, as specified in Section 2520(b); and
- (3) Complete the Hazardous Materials Emergency Response First Responder Operations - Decontamination Course Course, as specified in Section 2520 (x).

(e) To become certified to teach a Hazardous Materials Refresher Course, the applicant shall complete all of the following requirements:

- (1) To instruct refresher classes based on the courses specified in Section 2530 (a), the applicant shall complete;
 - (A) All of the requirements specified in Section 2530 (a);
 - (2) To instruct refresher classes based on the courses specified in Section 2530 (b), the applicant shall complete;
 - (A) All of the requirements specified in Section 2530 (b);
 - (3) To instruct refresher classes based on the courses specified in Section 2530 (c), the applicant shall complete;
 - (A) All of the requirements specified in Section 2530 (c).

[Medical Response Certification Requirements]

(f) To become a California State Certified Hazardous Materials Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530 (a); and
- (2) Complete the Hazardous Materials Emergency Medical Response to Hazardous Materials Incidents: A Guide for First Responders course, as specified in Section 2520 (v).
- (3) If applicant will be the sole instructor: Submission of a photocopy, employer verification or valid supporting documentation for the following:
 - (A) Current certification as an EMT-P, at least two years of response experience as an EMT-P, or previously certified EMT-P with at least five (5) years field experience as an EMT-P, completion of First Responder Operations Level training and completion of the First Responder Operations - Decontamination Course as specified in Section 2520 (b) and (x); or
 - (B) Current certification as an EMT-II, at least two years of response experience as an EMT-II and certification as a Hazardous Materials Technician as specified in Section 2540 (o); or
 - (C) Current certification as an EMT-I, at least two years of response experience as an EMT-I, at least a Bachelor of Science degree in health sciences and certification as a Hazardous Materials Technician or Specialist as specified in Section 2540 (o);
- (5) If applicant will not be the sole instructor: Submission of a photocopy, employer verification or valid supporting documentation for the following: (Applicants certified under this paragraph shall not instruct the sections of the class involving paragraphs (1)(H)-(J) of Section 2520 (v)).
 - (A) Completion of First Responder Operational Level training as specified in Section 2520 (b) and at least two years of experience in emergency response.

[First Receiver FRO Certification Requirements]

(g) To become a California State Certified Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530 (a); and
- (2) Complete the Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care course, as specified in Section 2520 (w); and be certified as a Hazardous Materials Technician or have three years experience in a Health and Safety position in a Healthcare environment, or equivalent, or be currently licensed as a Registered Nurse, Physician Assistant, or Medical Doctor certified to the First Responder Operations/Decontamination level as specified in Section 2520(b) and 2520 (x).

[Investigations Certification Requirements]

(h) To become a California State Certified Hazardous Materials Investigations Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530 (a); and
- (2) Complete the Hazardous Materials Investigations course, as specified in Section 2520 (e); and
- (3) Provide evidence of current membership (or membership within the last five years) in an Environmental Crimes Investigations Task Force or Unit, and two years of work experience in environmental crimes investigations; and
- (4) Provide evidence of specialized expertise in law enforcement and/or fire operations, environmental health and/or crimes investigations, or criminal justice system procedures and protocols.

[Advanced Environmental Crimes Certification Requirements]

(i) To become a California State Certified Hazardous Materials Emergency Response Advanced Environmental Crimes Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530 (a) and (g); and
- (2) Complete the Hazardous Materials Emergency Response - Principles of Environmental Crimes Investigations course, as specified in Section 2520 (e); and
- (3) Complete the Hazardous Materials Emergency Response - Advanced Environmental Crimes Investigations course, as specified in Section 2520(u); and
- (4) Provide evidence of current membership (or membership within the last five years) in an Environmental Crimes Investigations Task Force or Unit, and;
- (5) Provide evidence of four years of work experience in environmental crimes investigations.

[Meth Lab FRA/FRO Certification Requirements]

(j) To become a California State Certified Hazardous Materials Clandestine Methamphetamine Laboratory First Responder Awareness Course Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530(a); and
- (2) Complete the First Responder Awareness Course, as specified in Section 2520 (a); and
- (3) Complete the Clandestine Methamphetamine Laboratory First Responder Awareness Course, as specified in Section 2520(aa); and
- (4) Provide evidence of specialized expertise in the chemical and physical hazards associated with the clandestine production of methamphetamine.

(k) To become a California State Certified Hazardous Materials Clandestine Methamphetamine Laboratory First Responder Operations Course Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530 (a); and

- (2) Complete the First Responder Operations Course, as specified in Section 2520 (b); and
- (3) Complete the Clandestine Methamphetamine Laboratory First Responder Operations Course, as specified in Section 2520 (bb); and
- (4) Provide evidence of specialized expertise in the chemical and physical hazards associated with the clandestine production of methamphetamine.

[FRO Law Field Support Certification Requirements]

(l) To become a California State Certified Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Sections 2530 (a) and,
- (2) Complete the Hazardous Materials/Weapons of Mass Destruction, First Responder Operations, Law Enforcement Field Support course, as specified in Section 2520 (ee) and,
- (3) Hold credentials as a sworn law enforcement officer and/or hold current certification in one of the following:
 - (A) Hazardous Materials Technician (as defined in Title 19 CCR 2540 (o)), or
 - (B) Hazardous Materials First Responder Operations (as defined in Title 19 CCR 2520 (b)).
- (4) Certified Instructors who teach the following course curriculum must be a sworn law enforcement officer:
 - (A) Title 19 section 2520 (ee)(M): and/or
 - (B) Title 19 section 2520 (ee)(3)(B) and (F)

[Mass Casualty Decon Certification Requirements]

(m) To become a California State Certified “Hazardous Materials - Mass Casualty Decontamination Instructor”, the applicant shall complete the following requirements:

- (1) All of the requirements specified in section 2530 (a); and
- (2) Hold current certification as a Hazardous Materials Technician or Specialist, as defined by section 2540 (o).

[ASO-HM Certification Requirements]

(n) To become a California State Certified Hazardous Materials Weapons of Mass Destruction Assistant Safety Officer Instructor, the applicant shall complete all of the following requirements:

- (1) Complete all the requirements of Title 19 CCR 2530(a)(1) and (2); and,
- (2) Complete the certified course, as referenced in Section 2520(r); and,
- (3) Hold certification to the Hazardous Materials Specialist level (as defined by Title 19 CCR 2540(o) and as a Certified CSTI Outreach Instructor in Hazardous Materials Specialist as defined in Section 2530 (b); and,
- (4) Provide a resume and supporting documentation, including written verification from applicant’s department head or designee, describing a minimum of 80 hours of teaching experience and a minimum of 3 years work experience on a hazardous materials response team.

[Technician/Specialist WMD/Terrorism Certification Requirements]

(o) To become a California State Certified Hazardous Materials Weapons of Mass Destruction Terrorism for the Technician/ Specialist Course, the applicant shall complete all of the following requirements:

- (1) Complete all the requirements of 19 CCR 2530(a)(1) and (2); and,

- (2) Successful completion of the certified course, as referenced in Section 2520 (ff); and,
- (3) Hold certification to the Hazardous Materials Technician or Specialist level (as defined by Title 19 CCR 2540(o) and as a Certified CSTI Outreach Instructor in Hazardous Materials Technician or Specialist as defined in Section 2530(b); and,
- (4) Submission of a resume and supporting documentation, including written verification from applicant's department head or designee, describing a minimum of 80 hours of teaching experience and a minimum of 3 years work experience on a hazardous materials response team.

[First Receiver FRA Certification Requirements]

(p) To become a California State Certified Hazardous Materials Emergency Response, First Receiver Awareness and Decontamination for Health Care Instructor, the applicant shall complete the following requirements:

- (1) All of the requirements specified in Section 2530(a): and
 - (2) Complete the Hazardous Materials Emergency Response, First Receiver Awareness and Decontamination for Health Care course, as specified in Section 2520(gg); and be certified as a Hazardous Materials Technician/Specialist or have a minimum of 3 years experience in a Health and Safety position in a Health Care environment, or equivalent, or be currently licensed as a Registered Nurse, Physician Assistant, or Medical Doctor certified to the level of First Receiver Operations and Decontamination for Health Care level as specified in Section 2520(w).
- (q) Reserved for future use.

§2540. Administrative Procedures.

(a) Course Manager.

(1) A Course Manager is a California Certified Hazardous Materials Instructor responsible for monitoring, coordinating, and teaching at least 20% of the certified course, as referenced in section 2520.

(2) A Course Manager shall ensure that all instructors (both State certified and noncertified) that teach in a certified course adhere to all requirements designated in Sections 2520 and 2540 as specified for the course being taught.

(3) A Course Manager is responsible for completing, signing, and submitting all required administrative forms as designated in section 2540(c).

(4) A Course Manager is responsible for requesting, signing, paying for and distributing course certificates to students who successfully complete the course as designated in section 2520.

(b) Noncertified Instructors.

(1) A Noncertified Instructor is any instructor who has not received State Certification as referenced in section 2530.

(2) Noncertified Instructors are permitted to teach in certified courses, as referenced in section 2520, only under the supervision of a Course Manager.

(3) Noncertified Instructors, who teach in certified courses, are required to adhere to all requirements designated in Sections 2520 and 2540 for the course being taught.

(c) Course Notification and Certification

(1) All Course Managers who request State certification for any of the courses referenced in section 2520 shall complete and submit a Training Course Notification Form (HM 100), as designated in section 2550, to the California Specialized Training Institute Hazardous Materials Section no later than six weeks prior to the start of the course in which certification is being requested. If there are any changes in class location, date or time, the Course Manager is required to submit those changes to the CSTI Hazardous Materials Section within 48 hours that the change or changes were made. If any of the changes described above occur within 48 hours of the course's start time, then the Course Manager is required to notify the CSTI Hazardous Materials Section immediately by telephone.

(2) Course Managers are not permitted to request State certification for Haz Mat Specialist (1F) or (1G) courses, as referenced in Section 2520(p)-(q), until a Field Training Facility for use in said courses has been inspected, approved, and certified according to the procedures established in Section 2560(b).

(3) All Course Managers who request State certification for any of the courses referenced in section 2520 shall complete, sign and submit all of the following administrative forms, as designated in section 2550, to the California Specialized Training Institute Hazardous Materials section no later than six weeks following the last day of the course in which certification is being requested:

(A) Course Roster Form (HM 150);

(B) Student Course Evaluation Forms (HM 140), one per student; and

(C) Class Schedule Form (HM 130).

(4) Completion of the Course Manager Course Evaluation Form (HM 160) is optional.

(5) When a Course Manager completes, signs, and submits the required administrative forms designated in section 2540, he or she is certifying that he/she taught the course according to all of the requirements designated in Sections 2520, 2530 and 2540 for the course being certified and that he/she used the current course curriculum specified in Section 2540(t).

(6) All courses shall be completed, including submission of all forms as designated in Section 2540(c)(3) and payment of all certificate fees and course material costs, to the California Specialized Training Institute within one year of course start date or the course will be considered null and void, unless said course has been granted an extension by the Chief of the Hazardous Materials Section per Section 2540(j)(2). Null and void courses are not eligible for certification.

(d) Certified Course Curriculum

(1) Course Managers shall not delete any material from a certified curriculum as referenced in section 2520.

(2) This section does not prohibit Course Managers from adding material which exceeds the minimum requirements established for course curriculum in Section 2520 under the condition that said additions do not contradict established State standards and recognized procedures pursuant to this code.

(3) Course Managers shall ensure that all students receive a copy of the appropriate student notebook, as referenced in Section 2520 and 2540(t), for students to retain for the duration of the class.

(4) Course Managers shall ensure that certified classes include all of the requirements specified in the applicable portion of Section 2520.

(5) Course Managers will ensure that courses requiring hands-on or practical application of skills, have sufficient supplies and equipment. Sufficient supplies means that there are enough tools, monitors, suits and other items to allow each student to meet the performance objectives within the course timeframe.

(A) Course Managers will ensure that there is sufficient equipment present at any given class to meet the student to equipment ratio required by the objectives found in section 2520.

(B) Student to Instructor/Equipment/etc. Ratios are used to assure students receive an adequate level of experiential learning. Course Managers may use break-outs or sectional training to reduce the required numbers of equipment (thereby reducing costs without sacrificing instructional quality).

(i) Example: The course: Technician C - Week, requires 1 computer for each 3 students. Given a class of 30 students, ten computers would be required, unless this practical application session were broken into three groups or break-outs. Each group having 10 students and one instructor. One group does air monitoring, one group does technical reference and one group uses the computers. In the case of the computer group, with only 10 students, only 3 computers are needed.

(e) Certified Course Exams

(1) Certified written exams for the courses referenced in section 2520 shall only be developed and revised by the California Specialized Training Institute Hazardous Materials section.

(2) Certified written exams shall only be administered, corrected, and scored by a California State Certified Hazardous Materials Instructor as referenced in section 2530.

(3) No California State Certified Instructor or instructor/staff working with a Certified Instructor is permitted to reveal to any student any direct and verbatim answers derived directly from any certified exam prior to or during the administration of said exam.

(4) No California State Certified Instructor or instructor/staff working with a Certified Instructor is permitted to reveal to any student any direct and verbatim questions derived directly from any certified exam prior to the administration of said exam.

(5) All California State Certified Instructors shall use the most current revision of the certified written exam available from the California Specialized Training Institute at the time of administration of said exam.

(6) A student who fails to pass an exam on the first attempt may be permitted to retake the exam once, if either of the following cases occur:

(A) If, in the opinion of the certified instructor who administered the exam, it appears that the student failed the exam because of difficulty with the English language. In such a case, the certified instructor may give the exam orally to the student.

(B) If, in the opinion of the certified instructor who administered the exam, it appears that the student failed the exam because of lack of knowledge of course material, then the instructor may, at his or her discretion, retrain the student. In such a case, a certified instructor is required to administer the most current alternate version of the written exam, which the student has not taken. The alternate version of the exam shall be taken within 30 calendar days from the date that the student's first exam was administered.

(7) Any student who fails to pass an exam twice shall be required to retake the entire course in which the student seeks certification.

(8) Any student found to be cheating by a certified instructor during the administration of a certified exam shall not be permitted to pass the said exam. "Cheating" consists of, but is not limited to, acts by students such as consulting the Student Notebook, notes, Instructor Guide or other reference materials during the administration of a certified exam. Exceptions include item 14 below and the use of wall-mounted "Periodic Table of the Elements" as required in 2520(k)(2).

(9) Any student not permitted to pass a certified exam because of alleged cheating or any student who failed an exam and seeks to contest any exam questions, may appear in person, within 60 days of said exam, before the California Specialized Training Institute Hazardous Materials Section Chief or his/her representative to request to retake an alternative exam. The Hazardous Materials Section Chief or his/her representative shall approve or deny the request based on evidence presented during the said interview with the student and a follow-up interview with the certified instructor(s) involved.

(10) Students are not permitted to retain or copy any certified exam. Course Managers must adequately ensure that all certified exams distributed during administration of said exam are returned and accounted for.

(11) Course Managers are required to retain all student answer sheets on which students marked answers for a minimum of 5 years after date exam was administered. If requested at any time during the five year retention period, the original answer sheets shall be forwarded by the Course Manager to the California Specialized Training Institute Hazardous Materials Section Chief within 10 days.

(12) The maximum time allowed for students to complete a certified written exam may be specified on said exam. If no time limit is specified, it shall be designated as a maximum of one minute per question (i.e. A 20-question exam shall have a time limit of 20 minutes, unless otherwise specified on said exam). The Course Manager shall inform the students of the specified or designated maximum time limit for said written exam prior to its distribution to students.

(13) All certified course exams, unless otherwise specified on the cover of the exam, shall be a “closed student notebook/workbook” exam.

(14) The use of the current ERG is allowed on the following CSTI certified exams: First Responder Awareness, 2520(a), First Responder Operations, 2520(b) and Incident Commander, 2520 (c).

(f) Quality Control/Audit Process

(1) Any course taught by a California State Certified Hazardous Materials Instructor, in which he or she has requested to receive State certification, is subject to unannounced field audits conducted by a faculty member of the California Specialized Training Institute Hazardous Materials Section or any Office of Emergency Services employee or authorized representative designated by the Chief of the California Specialized Training Institute Hazardous Materials Section. Field audits may consist of any of the following:

(A) Routine audits designed to determine if instructors are meeting the requirements established in Sections 2520 and 2540 for the course in which certification is being requested.

(B) Special audits investigating complaints of an instructor’s misconduct or unprofessional conduct.

(C) Follow-up audits designed to ensure an instructor’s compliance with required course changes and corrections of identified deficiencies.

(2) Any course taught by a California State Certified Hazardous Materials Instructor, in which he or she has requested to receive State certification, is subject to mail or telephone audits conducted by a faculty member of the California Specialized Training Institute Hazardous Materials Section or any Office of Emergency Services employee or authorized representative designated by the Chief of the California Specialized Training Institute Hazardous Materials Section. Mail and telephone audits may consist of any of the following:

(A) Survey of student reactions/evaluations of presentations by an instructor(s) and course content of any certified course.

(B) Required submission to the California Specialized Training Institute of all instructors’ lesson plans/guides, student notebooks, handouts, and any other written materials used in any certified course.

(3) The auditor shall complete a Course Audit Report (HM 180), as designated in section 2550, for each course audited and provide the California Specialized Training Institute Hazardous Materials Section Chief with a copy of said report for approval within 10 working days following completion of the audit. Upon receiving approval from the Section Chief, the Course Audit Report shall be forwarded to the Course Manager and/or Instructor within 10 working days of approval.

(4) If any deficiencies were identified in the audit, the auditor shall provide a written summary of deficiencies and recommendations for correcting the identified deficiencies to the California Specialized Training Institute Hazardous Materials Section Chief for approval within 10 working days following completion of the audit. Upon receiving approval from the Section Chief, the written summary of deficiencies and recommendations for correcting the identified deficiencies shall be forwarded to the Course Manager and/or Instructor within 10 working days of approval.

(A) If the deficiencies are major or willful violations of these regulations and the CSTI Hazardous Materials Section Chief determines that they cannot reasonably be rectified through remedial training, then he/she shall immediately recommend decertification of the instructor as specified in Section 2540(g)(4) of these regulations. Major violations include, but are not limited to, the following:

(i) Failure to teach a class as specified in the applicable portion of Section 2520.

(ii) Failure to cover all of the course objectives as specified in the applicable portion of Section 2520.

(iii) Failure to teach a class meeting the requirement for minimum hours as specified in the applicable portion of Section 2520.

(iv) Failure to use the curriculum material specified in the applicable portion of Section 2520 and Section 2540(t).

(v) Violation of Section 2540(e)(3)-(5).

(vi) Failure to follow the safety policy as specified in Section 2540(k)(1) and 2540(k)(3)-(5).

(vii) Failure to follow the "Professional Conduct" policy as specified in Section 2540(i).

(viii) Repeated or willful failure to follow administrative procedures as specified in Section 2540 after having been notified in writing of prior failure to follow those administrative procedures.

(5) A Course Manager and/or Instructor, who coordinated and/or taught a course that had been identified as being deficient, shall correct all identified deficiencies prior to coordinating or teaching in another certified course.

(6) Students who have attended a course that had been identified as being deficient shall not be issued certificates until said students have received remedial training in the areas identified as deficient. If the course was identified as being deficient after students have received certificates, the said students shall be notified by CSTI that their certificates are null and void until they receive remedial training in the areas identified as deficient.

(7) A follow-up audit, reported on a form HM 180 as designated in section 2550, shall be conducted by a faculty member of the California Specialized Training Institute Hazardous Materials Section or any Office of Emergency Services employee or consultant designated by the Chief of the California Specialized Training Institute Hazardous Materials Section to ensure that deficiencies have been corrected.

(8) Follow-up audit reports shall be submitted to the California Specialized Training Institute Hazardous Materials Section Chief within 10 working days following completion of the follow-up audit.

(9) The Course Manager is responsible for ensuring that any auditor(s) conducting an audit of said Course Manager's course, in accordance to the procedures established in Section 2540(f), is permitted free and unhindered access to any course requesting State certification. If the Course Manager fails to provide said auditor(s) with free and unhindered access to said course, then said course may not receive State certification.

(g) Instructor Decertification

(1) A Certified Instructor can be decertified for failure to adhere to the policies, procedures or administrative requirements for delivering, documenting, or certifying a course through the California Hazardous Substances Incident Response Training and Education Program.

(2) A Certified Instructor can be decertified for failure to correct all deficiencies identified in an audit as referenced in Section 2540(f).

(3) A Certified Instructor can be decertified for failure to teach a minimum of four hours of instruction in any certified course, or any course using certified curriculum, as referenced in Section 2520, during a calendar year. The calendar year in which an instructor received State Certification is exempt from the four-hour requirement. A Certified Instructor who wants credit for teaching hours only, must ensure that the Course Manager, of the course in which the Certified Instructor taught, includes his/her name and hours to be credited on Class Schedule Form (HM 130) that is submitted to the California Specialized Training Institute. If a Certified Instructor wants to notify CSTI of a course that he/she is teaching and does not want certification for the course, but wants credit for teaching hours only, then the Certified Instructor shall submit a Training Course Notification Form (HM 100) and a Class Schedule Form (HM 130) to CSTI.

(4) The CSTI Hazardous Materials Section Chief shall recommend decertification of an instructor to the Director of CSTI. The final decision to decertify an instructor is determined by the Director of the California Specialized Training Institute within 45 calendar days of the recommendation from the CSTI Hazardous Materials Section Chief.

(5) If the CSTI Hazardous Materials Section Chief recommends decertification of an instructor to the Director of CSTI, then the Section Chief shall, at the same time, cause the instructor being recommended for decertification to be notified by written correspondence outlining the reason(s) for his/her pending decertification. The instructor being recommended for decertification shall be given 30 calendar days (from the date the notification was mailed) to respond in writing to the Director of CSTI for consideration in retaining his/her certification. The Director of CSTI shall review any written correspondence received within the 30-day notification period described above prior to decertifying an instructor.

(6) During the 30-day notification period, designated in Section 2540(g)(5), the instructor pending decertification shall be permitted to appear before the CSTI Hazardous Materials Section Chief and/or the CSTI Hazardous Material Section Instructor Certification Program Coordinator for the purpose of requesting to retain his/her instructor certification. The instructor pending decertification shall be permitted, at the time of appearance, to present any evidence that would assist in a fair and impartial decision regarding the pending decertification. The CSTI Hazardous Materials Section Chief and/or the CSTI Hazardous Material Section Instructor Certification Program Coordinator shall prepare a written summary of the findings of the interview with the instructor pending decertification, including a recommendation to either maintain or withdraw the decertification request, within 10 days following the interview, to the Director of CSTI. The Director of CSTI shall review any written summary of an interview with an instructor pending decertification prepared by the CSTI Hazardous Materials Section Chief and/or the CSTI Hazardous Material Section Instructor Certification Program Coordinator prior to decertifying an instructor.

(7) Any instructor who has been notified that he/she is pending decertification, shall be designated as “under suspension” and shall not be permitted to manage, teach or assist in any course requesting State certification. An instructor suspension period shall not exceed 90 days.

(8) An instructor who has been decertified in accordance with Section 2540(g)(1) or (2) shall not be permitted to manage, assist, or teach in any course requesting State certification.

(h) Instructor Recertification

(1) An instructor who was decertified in accordance with Section 2540(g)(3) can be recertified by either of the following methods:

- (A) Successful completion of the Hazardous Materials Instructor Recertification Course as referenced in Section 2520(j); or
- (B) Successful recompletion of the Hazardous Materials Instructor Certification for Trainers Course as referenced in Section 2520(i).

(2) An instructor who was decertified in accordance with Section 2540(g)(1) or 2540(g)(2) is not eligible for recertification.

(i) Professional Conduct

(1) All instructors teaching, coordinating, or monitoring a hazardous materials course as referenced in Section 2520 shall adhere to all of the following professional codes of conduct:

- (A) Refrain from making sexist, racist, or obscene remarks during a certified course.
- (B) Utilize class time for enhancing the learning of students and not for personal motives unrelated to teaching.
- (C) Provide complete and accurate information to the Office of Emergency Services when requested to do so pursuant to Sections 2510-2560.
- (D) Teach only subjects in which the instructor is qualified based on training and experience.
- (E) Provide an honest and accurate representation of instructor's educational background and work experience to students as it relates to the course of instruction.
- (F) Provide an honest and accurate representation of instructor's employment status and instructor relationship with the State.

(2) Any certified instructor who changes his/her address or phone number shall notify CSTI Hazardous Materials Section of said change within 30 days of change.

(j) Class Size, Duration, and Attendance

(1) For any certified course referenced in Section 2520, the Course Manager shall ensure that the Student-to-Instructor ratio does not exceed 50-to-1 for classroom instruction and 15-to-1 for field/exercise instruction.

(2) No single certified course, as referenced in Section 2520, can be taught over any period exceeding 12 consecutive months without consent from the Chief of the Hazardous Materials Section of the California Specialized Training Institute.

(3) The Course Manager is required to document and verify student attendance on a daily basis. Verification of student attendance is subject to audit. Course Managers should retain such records for a period of not less than five years.

(4) 40 hour class policy. A 40 hour course may be presented in less than 40 hours, however, no less than 36 hours under the following circumstances:

- (A) The course coordinator certifies that all practical and learning objectives have been met and completed: and,
- (B) The course coordinator certifies that all participants in the course meet the same competency requirements as those taking the full 40 hour course: and,
- (C) In situations where a 40 hour class is being presented and the number of students is low or the skill level is very high or other situations as deemed appropriate by the Course Coordinator, the minimum required attendance and certification hours can be changed to as low as 36 hours: and,
- (D) The 40 hour duration is not required by any other agency; e.g., the 40 hour Site Worker course cannot be presented in 36 hours due to the OSHA mandate in Title 8 CCR 5192 (e) requiring 40 hours.

(k) Safety Policy

(1) All Course Managers, certified and noncertified instructors who are conducting or participating in any State certified hazardous materials course, as referenced in Section 2520, shall adhere to all of the following safety procedures:

(A) The Course Manager shall provide advanced notice to prospective trainees regarding any anticipated physical demands and/or physical performance expectations; examples include an obstacle course, heavy lifting, and high heat and cold environments and will ensure each student complete and turn in the CSTI Statement of Physical or Medical Qualification Form (HM 280 (rev. 9/04) or HM 280C (rev. 9/06) which are incorporated by reference) to the course manager;

(B) The Course Manager shall provide all instructors participating in their course with a copy, or post a copy at training locations and notify instructors, of this safety policy;

(C) The Course Manager shall ensure that emergency communications (telephone or radio) are accessible at all training locations;

(D) The Course Manager shall ensure for chemical and outdoor practical “hands on” training/exercises that at least one member of the training staff or class, either directly involved in the training event or immediately (within 3 minutes) available at the training location, shall be certified as an EMT-1 or greater. Local EMS may be utilized if they meet response time criteria.

(E) The Course Manager shall ensure that student emergency notification information, including name and phone number of student’s emergency contact, be maintained and easily accessible for the duration of training;

(F) The Course Manager shall ensure that all instructors participating in the training event are provided with the location and phone number of the nearest medical facility or are provided communication access to the Emergency Medical System (911). Additionally, this information shall be conspicuously posted at all training sites;

(G) The Course Manager shall be responsible for appointing a Safety Officer from staff or students for chemical and outdoor practical hands-on exercises and conducting a safety inspection of all training locations prior to student arrival, reasonably ensuring that no unsafe conditions exist;

(H) The Course Manager shall be aware of environmental factors such as weather or air quality prior to any outdoor instruction, and shall adjust instruction as necessary; to insure student safety;

(I) The Course Manager shall verbally review specific safety rules with all students and ensure that specific safety rules are conspicuously posted;

(J) The Course Manager shall advise students of their responsibility to stop and report any unsafe action during training immediately upon discovery;

(K) The Course Manager and all instructors participating in training shall display an attitude of safety and professional demeanor at all times; and

(L) All instructors shall adhere to this safety policy, and all other specific site safety procedures pertaining to equipment, facilities, and manipulative skills as deemed appropriate by the Course Manager.

(2) All students who are participating in any State certified hazardous materials course, as referenced in Section 2520, shall adhere to all of the following safety procedures:

(A) Students shall notify the Course Manager prior to class of any existing medical condition or illness which may create a safety hazard, health risk, be aggravated or affect performance during training;

(B) In training that requires students to wear an encapsulated suit and/or a self-contained breathing apparatus (SCBA) and/or an Air Purifying Respirator (APR) and/or an Powered Air Purifying Respirator (PAPR), students shall submit written documentation: CSTI Statement of Physical or Medical Qualification Form (HM 280 or HM 280C), to the Course Manager prior to class.

(C) All students shall be required to provide evidence of medical or physical fitness for training, if the Course Manager questions their ability to perform safely students may be required to show additional proof of fitness:

(D) Students shall immediately notify a member of the training staff of any injury, however slight, sustained during training;

(E) Students shall be responsible for stopping and reporting any unsafe action during training immediately upon discovery; and

(F) Students shall adhere to this safety policy, and all other specific site safety procedures pertaining to equipment, facilities, and manipulative skills as deemed appropriate by the Course Manager.

(3) All Course Managers, certified and noncertified instructors, and students who are conducting or participating in any State certified hazardous materials course, as referenced in Section 2520, shall adhere to the following Response-To-Injury procedures:

(A) In the event of an injury, the following actions shall be taken:

(i) Obtain appropriate medical assistance. In all cases where a student loses consciousness, an evaluation shall be sought from a medical doctor before the student is allowed to return to training;

(ii) Render first aid as necessary by the designated EMT-I, EMT-P, staff members, students trained in first aid, or local EMS System

(iii) Immediate notification (24 hours) by the Course Manager to the CSTI Hazardous Materials Section Chief, using the CSTI Injury and Accident Form (HM 290 (rev. 3/04) incorporated by reference), shall be made if any serious/major injury, life-threatening injury or illness, or death is sustained by a student or instructor during training;

(iv) Notification of lesser injuries not requiring treatment beyond first aid (e.g., minor lacerations, abrasions, strains, etc.) shall be made by the Course Manager using the CSTI Injury and Accident Form (HM 290 within 10 working days of the injury, to the CSTI Hazardous Materials Section Chief.

(v) Students who sustain any injury that requires treatment by a physician shall obtain a written medical release from a physician and submit it to the Course Manager before being permitted to resume training. An injured student is required to make notification to CSTI Hazardous Materials Section Chief if said student obtained medical treatment without Course Manager's knowledge;

(4) All Course Managers, certified and noncertified instructors, and students who are conducting or participating in any State certified hazardous materials course, as referenced in Section 2520, that involves chemical monitoring or analysis shall adhere to the following safety procedures:

(A) Student shall be a minimum of 20 feet away from all chemical demonstrations involving reactive chemical, explosive chemicals, or potentially vigorous reactions;

(B) Students shall be in a well ventilated room not to exceed 85 degrees F or outside not to exceed 100 degrees F;

(C) All instructors and students shall wear appropriate chemical protective clothing;

(D) During the handling of chemicals, students shall be monitored according to a student-to-instructor ratio that does not exceed 10-to-1;

(E) An EMT-I, or greater, shall be available on-site or through local EMS, at all times during the handling of chemicals (efforts should be made to have an EMT-P available); and

(F) Escape routes and warning signals should be identified by course manager and discussed with students.

(5) All Course Managers, certified and noncertified instructors, and students who are conducting or participating in any State certified hazardous materials course, as referenced in Section 2520, that involves an outdoor practical field exercise shall adhere to the following safety procedures:

(A) Student-to-Instructor ratio shall not exceed 15-to-1;

(B) Students shall work outdoors in a maximum of 50 minute increments with 10 minute breaks, (except training scenarios);

(C) Students shall not be permitted to remain in a Level A, B, and/or C suit (maximum suit time) for any period of time exceeding 45 consecutive minutes without a minimum of 30 minute break after doffing suit;

(D) If outdoor temperatures exceed 100 degrees F, student shall take breaks 10 minute minimum every 30 minutes. Above 100 degrees F, student time in chemical protective clothing shall be limited to 15 minutes including standby time and no in-suit training will be allowed when temperatures exceed 105 degrees F;

(E) Adequate drinking water shall be made available to all students and instructors during class hours;

(F) A covered resting/viewing area shall be made available for all students and instructors when environmental conditions dictate;

(G) When students are involved in donning Level A, B, and/or C protective clothing, a back-up student shall assist the student donning the clothing. If the back-up student discovers a problem, he or she shall assist the student in Level A, B, and/or C clothing to a safe position and then immediately notify an instructor;

(H) A demonstration on proper ladder safety shall be given to all students prior to any training involving ladders; and

(I) An EMT-I, or greater, will be available on site or through local EMS at all times during the use of Level A, B, and/or C Protective Clothing and Equipment and pre and post suit entry medical monitoring, (vital signs), shall be done each time students wear chemical protective clothing.

(I) Certified Course Publication/Marketing Policy

(1) Unless otherwise noted, all course student notebooks and handout materials issued by the California Specialized Training Institute for the State Certified Hazardous Materials Courses referenced in Section 2520 are public domain and, thereby, not subject to copyright.

(2) All materials making reference to the Office of Emergency Services and/or California Specialized Training Institute that are to be used to market or seek attendance in a State Certified Hazardous Materials Course shall be forwarded to the California Specialized Training Institute Hazardous Materials Section Chief for approval prior to their use.

(m) Course Prerequisites

(1) Students shall complete a First Responder Operations Course meeting the minimum content requirements as referenced in Section 2520(b) or an Incident Commander Course meeting the minimum content requirements as referenced in Section 2520(c) prior to being permitted to attend any State Certified Hazardous Materials Technician/Specialist Course as referenced in Section 2520. The Course Manager shall forward a signed Hazardous Materials Proof of FRO Competencies Form (HM 170, (rev. 8/99) incorporated by reference) to CSTI with the completed Course Roster (HM 150), as referenced in Section 2550(a)(4).

(2) Students shall complete a First Responder Operations Course meeting the minimum content requirements as referenced in Section 2520(b) or an Incident Commander Course meeting the minimum content requirements as referenced in Section 2520(c) prior to being permitted to attend any State Certified Hazardous Materials Investigations Course as referenced in Section 2520(e). The Course Manager may adopt an equivalent course with prior permission from the CSTI Hazardous Materials Section. The Course Manager shall forward a signed Hazardous Materials Proof of FRO Competencies Form (HM 170) to CSTI with the completed Course Roster (HM 150), as referenced in Section 2550(a)(4).

(3) Applicants shall complete a State Certified Hazardous Materials Investigations Course or its equivalent, as specified in Section 2520(e) prior to attending a State Certified Hazardous Materials Advanced Environmental Crimes Investigations Course as specified in Section 2520(u).

(4) Any student seeking to attend a State Certified Hazardous Materials Advanced Environmental Crimes Investigations Course as specified in Section 2520 (u) shall provide documentation to the Course Manager that verifies that said student is an active member of an environmental crimes investigations team/unit or works in the direct support of an environmental crimes investigation team or unit prior to being allowed to attend.

(5) Students shall complete a First Responder Operations Course meeting the minimum content requirements as referenced in Section 2520(b) or an Incident Commander Course meeting the minimum content requirements as referenced in Section 2520(c) prior to being permitted to attend a State Certified Hazardous Materials Emergency Response First Responder Operations - Decontamination Course as referenced in Section 2520(x), or a State Certified Haz Mat Emergency Response-Incident Commander Course meeting the 24 hour minimum class duration requirement as referenced in Section 2520(c)(3), or a State Certified Hazardous Materials Emergency Response Technician -Private Industry Course meeting the 16 hour minimum class duration requirement as referenced in Section 2520(t)(3).

(6) Current Certification is defined by Section 2510(i) and is required when requesting equivalency for select CSTI courses or as a prerequisite for courses which permit equivalency.

(7) Requests for exceptions and waivers should be sent to the Chief of the CSTI HazMat Section.

(n) Required Course Materials and Training Aids

(1) Course Managers are required to use course materials, text books, reference books, videos, equipment and training aids that are designated in Section 2520 for specific State certified hazardous materials courses.

(2) Any Course Manager who seeks to substitute other materials, text books, reference books, videos, equipment or training aids in place of those specified in Section 2520, shall submit a written request with a copy of the material(s) to be considered, to the California Specialized Training Institute Hazardous Materials Section Chief for approval prior to use in any certified course.

(o) Technician and Specialist Designation

(1) Any student who has successfully completed all of the Hazardous Materials Technician/Specialist Courses as referenced in Section 2520(k)-(q) shall be recognized as having been trained as a certified Hazardous Materials Specialist by the State of California.

(2) Any student who has successfully completed all of the Hazardous Materials Technician/Specialist Courses as referenced in Section 2520(k)-(n) shall be recognized as having been trained as a certified hazardous Materials Technician by the State of California.

(3) Any Student who seeks to challenge the Technician/Specialist 1A Course, as referenced in Section 2520(k), shall be permitted to take the Technician/Specialist 1A Final Exam only once, as administered by a CSTI Hazardous Materials Section faculty member or designated certified instructor. If said student successfully passes said exam, the student shall be certified as completing the Technician/Specialist 1A Course, as referenced in Section 2520(k). The regular tuition fee may be charged to the student prior to administering the Technician/Specialist 1A Final Exam.

(p) California Code of Regulations Acknowledgment Receipt

(1) Prior to managing, instructing, or assisting in any course requesting State certification, all certified instructors are required to read, understand, and follow Title 19 CCR 2510-2560.

(2) All certified instructors are responsible for obtaining, reviewing, and complying with all published revisions to these regulations, as designated in Title 19 California Code of Regulations, Division 2, Chapter 1, Subchapter 2, Sections 2510-2560 entitled Hazardous Substances Emergency Response Training.

(q) Specialist Evaluation

(1) The Haz Mat Specialist Evaluation Record (HM 230), as referenced in Section 2550(a)(10), shall only be completed by the Specialist 1G Course Manager or instructor(s) assisting the Course Manager, under the director supervision of said Course Manager.

(2) Instructors who complete the Haz Mat Specialist Evaluation Record (HM 230) shall accurately and objectively evaluate the student's performance based on the certified curriculum as referenced in Section 2520.

(3) Instructors who complete the Haz Mat Specialist Evaluation Record (HM 230) shall complete the "comment section" whenever a student receives a performance grade of "3" (Outstanding) or "O" (Failure).

(4) The Specialist 1G Course Manager is responsible for reviewing and ensuring that the Haz Mat Specialist Evaluation Record (HM 230) is accurate, objective, and contains all required comments.

(5) The Specialist 1G Course Manager is responsible for assigning the final score for all students in his/her course.

(6) A student shall not receive certification in the Specialist 1G Course, as referenced in Section 2520(q), unless he or she receives a score of "1" (Average) or better in each of the five position categories.

(r) Condensed Courses

(1) The Office of Emergency Services will not certify condensed courses after June 30, 1999.

(s) Refresher Courses

(1) The California Specialized Training Institute shall issue a student a Certificate of Completion in Refresher Training for any course referenced in section 2520, except 2520(s), as long as the four components of refresher training are completed, as verified by a qualified current CSTI outreach instructor:

(A) The CSTI outreach instructor shall conduct a review and assessment of the students competencies at the appropriate CSTI standardized course, as referenced in Section 2520, in order to identify what competencies are in need of refresher training; and,

(B) The CSTI outreach instructor shall provide refresher training for the identified competencies identified in (s)(1)(A), and shall provide any updates regarding the jurisdiction/employer hazardous materials plans, policies, and standard operating procedures; and,

(C) The CSTI outreach instructor shall ensure that the student participates in an exercise that includes the objectives to demonstrate the competencies at the appropriate CSTI standardized course, as referenced in Section 2520, and provide coaching that will enhance the achievement of those competencies; and,

(D) The CSTI outreach instructor shall provide a recap of the key points of the refresher training, administer the current CSTI certified refresher exam per the regulations under section 2520(e), and provide remediation as necessary for the commonly missed questions.

(6) The California Specialized Training Institute shall issue a student a Certificate of Completion in Refresher Training for the Hazardous Waste General Site Worker Course if all of the following conditions are met:

(A) Student presents to the Course Manager a valid certificate of completion issued by the California Specialized Training Institute for the Hazardous Waste General Site Worker Course meeting the content requirements referenced in Section 2520(s);

(B) Student actively participates in the 8 hour California Specialized Training Institute's refresher course for the Hazardous Waste General Site Worker Course.

(C) Student actively participates in a review of the training requirements for Hazardous Waste General Site Worker as specified in Title 8 California Code of Regulations Section 5192(e);

(D) Student actively participates in an activity requiring them to complete a practical exercise while wearing a level of chemical protective clothing appropriate to that worksite;

(E) Student demonstrates basic competency of Hazardous Waste General Site Worker level objectives, as referenced in Section 2520(s)(1), during the CSTI Hazardous Waste General Site Worker Refresher Course field training exercise or a Hazardous Waste General Site Worker level refresher exercise developed and approved by student's employer; and

(F) Student successfully completes the CSTI Hazardous Waste General Site Worker Refresher Course written examination with a score of 70% or better.

(7) All administrative procedures, as referenced in Section 2540, shall apply to all refresher courses.

(8) Course Managers seeking to teach any of the refresher courses referenced above shall indicate on the Training Notification Form (HM 100), as referenced in Section 2550, that said course will be in the refresher format.

(9) Course Managers who have completed teaching any of the refresher courses referenced above shall submit to CSTI with the Course Roster Form (HM 150), as referenced in Section 2550, a photocopy of the certificate of the prerequisite course for each student as designated in Section 2540(t)(1)(A) or Section 2540(t)(2)(A).

(10) The Course Manager for the First Responder Awareness Refresher Course shall be a certified First Responder Awareness or Operations Instructor as referenced in Section 2530(a).

(11) The Course Manager for the First Responder Operations Refresher Course shall be a certified First Responder Operations or Incident Commander Instructor as referenced in Section 2530(a).

(12) The Course Manager for the Emergency Response Incident Commander Refresher Course shall be a certified Incident Commander Instructor as referenced in Section 2530(a).

(13) The Course Manager for the Hazardous Materials Emergency Response Technician - Private Industry Refresher Course shall be a certified California State Certified Hazardous Materials Technician/Specialist 1C and 1D or 1F and 1G or Hazardous Materials Emergency Response Technician -Private Industry Instructor as referenced in Section 2530(b). The course manager for a Hazardous Waste General Site Worker Refresher Course shall be a certified California State Certified Hazardous Waste General Site Worker Instructor.

(t) Certified Curriculum

(1) Certified curriculum for the California Hazardous Substances Incident Response Training and Education Program shall consist of Instructor Guides and/or Student Notebooks, effective publication dates as of September 1, 2002 or thereafter, as listed below. Course managers shall ensure that certified classes use the current edition of the documents listed for the applicable course. These documents are incorporated by reference in their entirety into these regulations for the courses described in Section 2520.

Clandestine Methamphetamine Laboratories First Responder Awareness, Student Manual
Clandestine Methamphetamine Laboratories First Responder Awareness, Instructor Guide.

Clandestine Methamphetamine Laboratories First Responder Operations, Student Manual
Clandestine Methamphetamine Laboratories First Responder Operations, Instructor Guide.

Hazardous Materials - Assistant Safety Officer Student Manual

Hazardous Materials - Assistant Safety Officer, Instructor Guide

Hazardous Materials Emergency Response: First Responder Awareness Student Notebook

Hazardous Materials Emergency Response: First Responder Awareness Instructor Guide

Hazardous Materials Emergency Response: First Responder Operations Student Notebook

Hazardous Materials Emergency Response: First Responder Operations Instructor Guide

Hazardous Materials Emergency Response: Incident Commander Student Notebook

Hazardous Materials Emergency Response: Incident Commander Instructor Guide

Hazardous Materials Emergency Response: Executive Management Student Notebook.

Hazardous Materials Emergency Response: Principles of Environmental Crimes
Investigations Student Notebook

Hazardous Materials Emergency Response: Environmental Monitoring Student Notebook

Hazardous Materials Emergency Response: Incident at Ports Student Notebook

Hazardous Materials Emergency Response: Instructor Certification Student Notebook

Hazardous Materials Emergency Response: Inst. Cert. for Trainers Student Notebook

Hazardous Materials Emergency Response: Instructor Recertification Student Notebook

Hazardous Materials Emergency Response: Tech/Specialist (1A): Basic Chemistry Student
Notebook

Hazardous Materials Emergency Response: Tech/Specialist (1A): Basic Chemistry Instructor
Guide

Hazardous Materials Emergency Response: Tech/Specialist (1B): Applied Chemistry Student
Notebook

Hazardous Materials Emergency Response: Tech/Specialist (1B): Applied Chemistry
Instructor Guide

Hazardous Materials Emergency Response: Tech/Specialist (1C): Incident Considerations
Student Notebook

Hazardous Materials Emergency Response: Tech/Specialist (1C): Incident Considerations Instructor Guide

Hazardous Materials Emergency Response: Tech/Specialist (1D): Tactical Field Operations Student Notebook

Hazardous Materials Emergency Response: Tech/Specialist (1D): Tactical Field Operations Instructor Guide

Hazardous Materials Emergency Response Specialist (1F): Specialized Mitigation Techniques Student Notebook

Hazardous Materials Emergency Response Specialist (1F): Specialized Mitigation Techniques Instructor Guide

Hazardous Materials Emergency Response Specialist (1G): Tactical Field Operations Instructor Guide

Hazardous Materials Emergency Response Tech/Spec: Instructor Orientation Student Notebook

Hazardous Materials Emergency Response Technician -Private Industry Student Notebook

Hazardous Materials Emergency Response Technician -Private Industry Instructor Guide

Hazardous Materials Emergency Response Technician -Private Industry (24 Hour) Student Notebook

Hazardous Materials Emergency Response Technician -Private Industry (24 Hour) Instructor Guide

Hazardous Materials Emergency Response Advanced Environmental Crimes Investigations Student Notebook

Hazardous Materials Emergency Response Emergency Medical Response to Hazardous Materials Incidents Student Notebook

Hazardous Materials Emergency Response Emergency Medical Response to Hazardous Materials Incidents Instructor Guide

Hazardous Materials Emergency Response Guidelines for Hospitals and Emergency Departments: Managing the Victims of Hazardous Materials Incidents Student Notebook

Hazardous Materials Emergency Response Guidelines for Hospitals and Emergency Departments: Managing the Victims of Hazardous Materials Incidents Instructor Guide

Hazardous Materials Emergency Response First Responder Operations - Decontamination Student Notebook

Hazardous Materials Emergency Response First Responder Operations - Decontamination Instructor Guide

Hazardous Materials - Mass Casualty Decontamination, Student Manual

Hazardous Materials - Mass Casualty Decontamination, Instructor Guide

Hazardous Materials/Weapons of Mass Destruction Assistant Safety Officer Student Manual (rev.2007)

Hazardous Materials/Weapons of Mass Destruction Assistant Safety Officer Plan of Instruction (rev. 1/2007)

Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care Student Manual (rev. 6/2007)

Hazardous Materials/Weapons of Mass Destruction Emergency Response, First Receiver Operations and Decontamination for Health Care Plan of Instruction (rev. 6/2007)

Hazardous Materials/Weapons Of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course Student Manual (rev. 2/2007)

Hazardous Materials/Weapons Of Mass Destruction, First Responder Operations, Law Enforcement Field Support Course Plan of Instruction (rev. 2/2007)

Hazardous Materials, Weapons of Mass Destruction Terrorism for the Technician/ Specialist Course Student Manual (rev. 4/2007)

Hazardous Waste General Site Worker Student Notebook

Hazardous Waste General Site Worker Instructor Guide

HazMat Emergency Response, First Responder Awareness - Nuclear, Biological and Chemical Agents, Student Manual.

HazMat Emergency Response, First Responder Awareness - Nuclear, Biological and Chemical Agents, Instructor Guide.

First Responder Operations -Nuclear, Biological and Chemical Agents Student Notebook

Incident Commander: Nuclear, Biological and Chemical Agents (IC-NBC) Course Participant Workbook

Barclays Official California Code of Regulations
Title 19. Public Safety
Division 2. Office of Emergency Services
Chapter 2. Emergencies and Major Disasters
Subchapter 2. Hazardous Substances Emergency Response Training
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§2550. Administrative Forms.

(a) The following forms shall be utilized in the administration of the California Hazardous Substances Incident Response Training and Education Program as designated in section 2540:

- (1) Training Course Notification Form (HM 100);
- (2) Class Schedule Form (HM 130);
- (3) Student Course Evaluation Form (HM 140);
- (4) Course Roster Form (HM 150);
- (5) Course Manager Course Evaluation Form (HM 160);
- (6) Hazardous Materials Proof of FRO Competencies Form (HM 170) (rev. 8/99)
- (7) Course Audit Report Form (HM 180);
- (8) FTF Inspection Report Form (HM 190);
- (9) CCR Acknowledgment Receipt Form (HM 200);
- (10) Teaching Verification Form (HM 220);
- (11) Haz Mat Specialist Evaluation Record (HM 230);
- (12) CSTI Application Form
- (13) CSTI Statement of Physical or Medical Qualification Form (HM 280) (rev. 9/04)
- (14) CSTI Statement of Physical or Medical Qualification for APR Form (HM 280 C) (rev. 4/04)
- (15) CSTI Injury and Accident Form (HM 290) (rev. 9-07)

§2560. Field Training Facility.

(a) Minimum Requirements

(1) A State Certified Hazardous Materials Field Training Facility (FTF) shall have all of the following training aids:

(A) Drums that have been designed with leaks of the following types:

(i) One Side Void (eg. fork lift or nail puncture);

(ii) One Bung Leak (damaged threads); and

(iii) One Chine Leak (1/16 holes or saw cut).

(B) Drums for sampling:

(i) One 1A1 with threaded bung, 55 gal.;

(ii) One 1A2 with removable top, 55 gal.; and

(iii) One non-operable (weld or braze bungs closed).

(C) Overpack:

(i) One DOT 49 CFR 173.3 Salvage Drum, 85 gal.;

(ii) One DOT 49 CFR 173.3 Salvage Drum, 8 gal.; and

(iii) One DOT 49 CFR 173.3 Salvage Drum, polyethylene.

(D) One 100-150 lb. Chlorine Container designed for vapor leak from the valve area.

(E) One 1-Ton Chlorine Container designed for liquid and vapor leaks from valve and fusible plug. Container shall be designed to allow instructor to change leak from a liquid to a vapor when students roll the container.

(F) One Chlorine Tank Dome designed for liquid line, vapor line and safety relief valve leak. One leak should be from vibration opening of valve, one leak from a valve loose in its mount, and one leak from a failed safety relief valve. The tank dome shall be designed to allow the student to read the vapor pressure via one of the vapor lines.

(G) One Fixed Bulk Storage Tank (minimum of 200 gallon capacity) with leaks of a type to facilitate the application of a tank bandage.

(H) One DOT class MC 306/MC 406 type Tank Truck designed to simulate leak from dome cover on overturned tanker. Tanker must be of sufficient size to allow drilling for stinger operations.

(I) One Railroad Tankcar with domes listed below or domes listed below on a simulated Railroad Tankcar. All work shall be done on a platform that is no larger than 64 square feet and at least 10 feet above ground level:

(i) One Chlorine Dome meeting requirements specified in Section 2560(a)(1)(F);

(ii) One Pressure Dome designed to leak from liquid valve, vapor valve, and failed safety-relief valve. The dome shall be designed to allow students to gauge the liquid level in the tank; and,

(iii) One General Service Dome designed to leak from liquid valve.

(J) One Storm Drain designed to allow water flow from an outfall line for students to construct an underflow dam to contain hazardous materials.

(K) One Piping System designed to leak liquid or vapor on 2-12-inch or larger pipes including the following:

(i) Valve, Flange, Weld, and Thread Failures;

(ii) Cracked Pipe; and,

(iii) Sheared Pipe.

(L) Pressure Vessels designed to leak from a valve or valve area including the following:

(i) One 100-150 lb Container.

(ii) One 1-Ton Container meeting the requirements specified in 2560(a)(1)(E); and,

(iii) Two Pressurized Gas Cylinders (e.g., fumigants, acetylene, oxygen).

(M) One Cargo Box Trailer or Intermodal Container to be used to simulate a traffic accident with mixed cargo involved.

(2) A State Certified Hazardous Materials Field Training Facility (FTF) shall have adequate supplies of all of the following equipment:

(A) Drum-related:

(i) Plug and Dike.

(ii) Bung Wrench.

(iii) Foam Wedges.

(iv) Dye.

(v) Epoxy Putty.

(vi) Grounding and Bonding.

(vii) New Bungs.

(viii) Speed Wrench and Socket.

(ix) Drum Repair Kit.

(x) Drum Hand Truck.

(xi) Transfer Pump.

(xii) Redwood Plugs.

(xiii) Drum Lifter.

(B) Chlorine-related:

(i) A Kit.

(ii) B Kit.

(iii) C Kit.

(iv) Ammonia Atomizer Bottle.

(C) Powdered Materials-related:

(i) Shovels.

(ii) Brooms.

(iii) Plastic Bags.

(iv) Tarps.

(D) Pressurized Gas Cylinders-related:

(i) Hand Tools.

(ii) Valve Thread Cap.

(E) Fixed Storage Tank-related:

(i) Patching Kits.

(ii) Pneumatic Patching Equipment.

(iii) 5-Minute Marine Epoxy.

(F) Piping Leaks-related:

(i) Pneumatic Patching Equipment.

(ii) Patching Kits.

(iii) Flange Gaskets.

(iv) Bolts and Nuts.

(v) Hand Tools.

(G) Cargo Tank-related:

(i) Dome Clamp (MC 306/406).

(ii) Step Ladder.

(iii) Pneumatic Drill.

(iv) Grounding and Bonding Cables.

(v) Grounding Rod.

- (vi) Stinger.
- (vii) 4" Hole Saw Drill Bit.
- (viii) Air Pressure Regulator.
- (H) Railroad Tankcar-related:
 - (i) Hand Tools.
 - (ii) Pneumatic Tank Patching Equipment.
 - (iii) Ladders (Fire Service Type), minimum 14 ft.
 - (iv) Tool Elevator (rope, bag or bucket, and pulleys).
- (I) Storm Drain-related:
 - (i) Shovels.
 - (ii) Sheet Plastic.
 - (iii) Wheelbarrows.
 - (iv) Sand.
 - (v) Over/Underflow Pipes (3-8 inches diameter).
 - (vi) Pneumatic Plugs.
- (J) Absorbents (polar and non-polar type):
 - (i) Pads.
 - (ii) Booms.
 - (iii) Pillows.
 - (iv) Granular.
- (K) Sampling-related:
 - (i) Colawasa Tube.
 - (ii) Scoops.
 - (iii) Pipettes.
 - (iv) Soil Sample Auger.
 - (v) Plastic ZipLoc-type Bags.
 - (vi) Drum Thief's
 - (vii) Spoons.
 - (viii) Bottles with Seals and Labels.
 - (ix) 1-gallon Paint Cans for Overpack.
- (L) Monitoring-related:
 - (i) CGI.
 - (ii) Oxygen Meter.
 - (iii) Photoionization Detector.
 - (iv) Dosimeters.
 - (v) Radiation Meters. Mr/hr and R/hr.
 - (vi) Colorimetric Tubes.
 - (vii) Field Chemical ID Kit.
 - (viii) Test Papers.
 - (ix) Belt Weather Kit or Mini-Weather Station
- (M) Decontamination-related:
 - (i) Four Containment Pools.
 - (ii) Four Water Wands.
 - (iii) Two Hudson Type Garden Sprayers.
 - (iv) Wash Tubs.
 - (v) Trash Bags (55-gallon type).
 - (vi) Four Garden Hoses or Equivalent.
 - (vii) Tarps.

- (viii) Brush Assortment.
- (ix) Sponges.
- (x) Towels.
- (xi) Four Astro-Terf (type) Doormats (Pool boot scrub)
- (N) Other:
 - (i) Windsock.
 - (ii) Computer loaded with the following:
 - (a) Cameo
 - (b) Chem Knowledge
 - (c) Chemical Reactivity worksheet
 - (iii) ICS Vests Including:
 - (a) Hazmat Group Supervisor
 - (b) Assistant Safety Officer
 - (c) Entry Team Leader
 - (d) Decon Team Leader
 - (e) Technical Reference Leader
 - (f) Site Access Leader
 - (iv) 20 Traffic Cones
 - (v) Barrier Tape
 - (vi) Bull Horn

(3) A State Certified Hazardous Materials Field Training Facility (FTF) shall have all of the following reference materials:

- (A) Chemical Dictionary (Hawley's).
- (B) Quick Selection Guide to Chemical Protective Clothing (Forsberg/Mansdorf)
- (C) Handbook Of Reactive Chemical Hazardous (L. Bretherick) or Rapid Guide to Chemical Incompatibilities (Pohanish/Green).
- (D) CHRIS Manual (U.S. Coast Guard - Printed or Electronic).
- (E) American Association of Railroads, Emergency Action Guides
- (F) Emergency Care for Hazardous Materials Exposure (Currence)
- (G) Farm Chemical Handbook (Meister).
- (H) Pocket Guide to Chemical Hazards (NIOSH).
- (I) Emergency Response Guide Book (DOT)

(4) A State Certified Hazardous Materials Field Training Facility (FTF) shall have all of the following protective clothing:

- (A) Level A Suits (adequate supply to assure that no suit is worn twice without first being cleaned and disinfected. Suit must provide total encapsulation.).
- (B) Level B Suits (one per student).
- (C) Chemical Resistant Boots (one pair per student).
- (D) Chemical Resistant Gloves (one pair per student).
- (E) Eye Protection (goggles or safety glasses, one pair per student).
- (F) Hearing Protection (one set per student).
- (G) Air Purifying Respirators (one per student).
- (H) Self-Contained Breathing Apparatus Mask (one per student).
- (I) Self-Contained Breathing Apparatus (one per every two students).

(5) A State Certified Hazardous Materials Field Training Facility (FTF) shall have an adequate supply of all of the following forms:

- (A) ICS Form 201 - Incident Briefing.
- (B) ICS Form 202 - Incident Objectives.

- (C) ICS Form 206 - Medical Plan
- (D) ICS Form 208 - Site Safety Plan
- (E) ICS Form 214 -- Unit Log.

(6) A State Certified Hazardous Materials Field Training Facility (FTF) shall have all of the following safety items:

- (A) First Aid Kit (EMT-1 type).
- (B) Emergency Telephone or Radio (to summon paramedic).
- (C) Covered Observation Area with sufficient capacity to seat entire class and able to provide protection from the rain and sun.
- (D) Flashlights (one per two students).
- (E) Emergency Night Lighting sufficient to illuminate entire exercise area.

(7) All leaks generated at a State Certified Hazardous Materials Field Training Facility shall be designed to leak at the approximate gallons-per-minute (and pressure) that would be found in an actual incident.

(8) Student to Instructor/Equipment/etc. Ratios are used in the preceding sections, above, to assure students receive an adequate level of experiential learning. See Section 2540 (d) (5) (B) for information on break-outs and sectional training.

(b) Inspection and Certification Procedures.

(1) Any FTF Coordinator seeking state certification for a FTF shall notify the California Specialized Training Institute Hazardous Materials Section Chief in writing, requesting an inspection.

(2) Upon written request for FTF inspection from any FTF Coordinator, the California Specialized Training Institute Hazardous Materials Section Chief shall notify the Office of the State Fire Marshal Training Division to arrange for a joint inspection within 45 calendar days of receiving the FTF Coordinator's written request.

(3) The FTF Coordinator requesting the inspection shall be notified, in writing, by the California Specialized Training Institute Hazardous Materials Section as to the date and time for the FTF inspection. The FTF Coordinator shall arrange for the proper personnel to be at the FTF to operate equipment and demonstrate that the training aids function as required during the inspection.

(4) FTF inspections shall be conducted jointly by representatives from the California Specialized Training Institute Hazardous Materials Section and the Office of the State Fire Marshal Training Division.

(5) Inspectors shall ensure that all the minimum required equipment and training aids, as defined in Section 2560(a), are present and fully operational. Inspectors shall complete a Field Training Facility Inspection Report (HM form 190), as referenced in Section 2550 and forward it to the California Specialized Training Institute Hazardous Materials Section Chief within 10 working days. Within 10 working days of receiving the inspection report, the California Specialized Training Institute Hazardous Materials Section Chief shall notify the FTF Coordinator, in writing, that the inspected FTF has been approved or denied certification. If the FTF is disapproved, the Section Chief shall forward a written report to the FTF Coordinator specifying the inspected FTF's deficiencies. Once the FTF Coordinator has corrected all of the identified deficiencies, the FTF Coordinator may request another inspection pursuant to this section.

(6) A state certified FTF is required for Hazardous Materials Specialist (1F) and (1G) Courses as referenced in Section 2520(p) and (q).

(7) Any State Certified FTF is subject to unannounced inspection/audits conducted by a faculty member of the California Specialized Training Institute Hazardous Materials Section

and/or a designee of the Office of the State Fire Marshal. Unannounced FTF inspection/audits will be conducted in accordance with the procedures established in Section 2540(f).

(8) If any changes occur in the FTF minimum requirements, as referenced in Section 2560(a), then the Chief of the California Specialized Training Institute Hazardous Materials Section is required to notify all FTF Coordinators in writing of said changes within 30 working days. FTF Coordinators shall have 90 working days to make all said changes. Upon completing changes, the FTF Coordinator will notify the Chief of the California Specialized Training Institute Hazardous Materials Section in writing within 30 working days. The Chief of the California Specialized Training Institute Hazardous Materials Section may, at his or her discretion, initiate an FTF inspection to verify compliance with said changes. All changes shall be completed prior to any state certified courses being conducted at the FTF.

(9) Mobile FTFs are subject to all of the same procedures and requirements of a fixed site FTF. Mobile FTFs are required to have all items, as specified in Section 2560(a), at all locations where the Mobile FTF is being used.

(10) The Course Manager shall ensure that the FTF have all training aids and equipment, as required in Section 2560(a), present and operational during the entire course in which the Course Manager is responsible.

(c) Field Training Facility Coordinator.

(1) A Field Training Facility Coordinator is a State Certified Hazardous Materials Instructor, as referenced in Section 2530, that is responsible for managing and maintaining a Field Training Facility.

(2) A Field Training Facility Coordinator is responsible for abiding by all procedures specified in Section 2560 and for completing and signing all administrative forms and correspondences pertaining to the FTF.

(3) All Course Managers conducting training at a FTF shall have received prior permission from the Field Training Facility Coordinator. The FTF Coordinator can deny use of the FTF to a Course Manager, if in the FTF Coordinator's opinion, the FTF is inadequately supplied, maintained, or presents any unsafe training conditions.

(4) The Course Managers conducting training at a FTF shall ensure that minimum required equipment, as referenced in Section 2560(a), is present at the FTF.

Note: Authority cited: Section 8574.20(a), Government Code. Reference: Section 8574.20(b), Government Code.