May 18, 2026

David Keeling
Assistant Secretary of Labor for Occupational Safety and Health
Occupational Safety and Health Administration
United States Department of Labor
200 Constitution Avenue NW,
Washington, DC 20210

Concerning: Docket OSHA-2025-0072

Submitted to Regulations.Gov

Dear Assistant Secretary Keeling,

The Institute of Hazardous Materials Management [IHMM] is pleased to submit comments concerning the docket cited above regarding the OSHA's Notice of Proposed Rulemaking under Docket No. **OSHA-2025-0072.**

Founded in 1984, the Institute of Hazardous Materials Management® (IHMM®) is a not-for-profit organization headquartered in Rockville, Maryland, operating in all 50 states and 85 countries. IHMM has been protecting the environment and the public's health, safety, and security through the creation of credentials recognizing professionals who have demonstrated a high level of knowledge, expertise, and excellence in the management of hazardous materials, dangerous goods transportation, environmental protection, health, and workplace safety.

It is primarily through three of IHMM's professional credentials that we provide comments in this submission: the Certified Safety and Health Manager® [CSHM®] **Addendem One**, the Certified Safety Management Practitioner® [CSMP®] **Addendum Two**, Certified Hazardous Materials Manager® [CHMM®] **Addendum Three**, and the Certified Hazardous Materials Practitioner® [CHMP®] **Addendum Four.**

The CHMM and CHMP credentials are accredited by the ANSI National Accreditation Board [ANAB], under the international ISO/IEC 17024-2012 standard, containing principles and requirements for a body certifying persons against specific requirements, and includes the development and maintenance of a certification scheme for persons.

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ANSI/ANAB accreditation of IHMM's credentials is the strongest and highest level of accreditation of professional credentials and serves as the indicator of the vigorous ANSI annual surveillance process. ANSI accreditation is recognized both nationally and internationally and has become the hallmark of a quality certification program.

The IHMM CSHM, CSMP, CHMM, and CHMP certification programs are also accredited by The Council of Engineering & Scientific Specialty Boards (CESB). CESB is an independent, voluntary membership body for organizations that recognize, through specialty certification, the expertise of individuals practicing in engineering and related fields. Accreditation is earned by demonstrating adherence with CESB Accreditation Guidelines, including a robust review program of compliance with those standards.

IHMM Comments on the Proposed Rule

The Institute of Hazardous Materials Management ("IHMM") respectfully submits these comments on OSHA's proposed rule entitled *Walking-Working Surfaces*, published at 91 Fed. Reg. 17165 (Apr. 6, 2026). As proposed, OSHA would remove the November 18, 2036 deadline in 29 C.F.R. § 1910.28(b)(9)(i)(D) requiring all fixed ladders extending more than 24 feet above a lower level to be equipped with a personal fall arrest system or ladder safety system, while retaining the existing requirements applicable to new fixed ladders and to replaced ladder sections. OSHA also requests comments on a broader alternative—whether it should repeal or revise the requirement that employers use personal fall arrest systems on all fixed ladders over 24 feet and instead continue to permit cages or wells.

IHMM's interest in this rulemaking is direct and substantial. IHMM's CSHM, CSMP, CHMM, and CHMP certification programs are accredited, and each of those credentials covers professionals whose work includes workplace safety management, technical safety implementation, hazardous materials compliance, and front-line hazardous materials operations. IHMM describes the CSHM as a credential for EHS professionals with knowledge and experience in safety management and regulatory compliance; the CSMP as a credential demonstrating technical safety expertise and management capability; the CHMM as a credential for professionals who handle, manage, or advise others on hazardous materials and associated compliance obligations; and the CHMP as a credential for front-line hazardous materials workers involved in handling, securing, spill response, and related operational duties.

IHMM's position is as follows: IHMM does **not** support any final rule that would treat ladder cages or wells as a permanent equivalent substitute for personal fall arrest systems or ladder safety systems on fixed ladders over 24 feet. IHMM could support a narrower revision removing or extending the 2036 deadline **only if** OSHA preserves the existing requirements for new ladders and replaced ladder sections, expressly declines to find that cages and wells are equivalent protection on the current

record, and adds practical guardrails to ensure that older ladders retained in service remain subject to documented inspection, condition assessment, and risk-based upgrade triggers.

The legal framework is straightforward. The OSH Act directs OSHA to assure safe and healthful working conditions and authorizes the Secretary to promulgate occupational safety and health standards. 29 U.S.C. § 651(b). An occupational safety and health standard must be "reasonably necessary or appropriate to provide safe or healthful employment and places of employment." 29 U.S.C. § 652(8). Employers must comply with OSHA standards, 29 U.S.C. § 654(a)(2), and OSHA may promulgate, modify, or revoke standards through notice-and-comment rulemaking under 29 U.S.C. § 655(b). States may operate OSHA-approved State Plans under 29 U.S.C. § 667. In addition, the APA requires the agency to provide a reasoned statement of basis and purpose for its final action. 5 U.S.C. § 553(c).

The Supreme Court has long held that OSHA must support a standard with evidence of significant risk and may not regulate on conjecture alone. *Industrial Union Dep't, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607 (1980), requires OSHA to show, on substantial evidence, that a significant risk exists before it imposes or maintains a standard. The D.C. Circuit has likewise held that OSHA need not prove that "each and every aspect" of a standard independently eliminates significant risk so long as the provision at issue is reasonably necessary and appropriate to address the significant risk identified by the standard as a whole. *Public Citizen Health Research Group v. Tyson*, 796 F.2d 1479 (D.C. Cir. 1986). And the Fifth Circuit has recognized that, once OSHA makes the general significant-risk determination, the question becomes whether the challenged provision is "reasonably related to the purpose of the standard as a whole." *Asbestos Info. Ass'n/N. Am. v. Reich*, 117 F.3d 891, 894 (5th Cir. 1997). OSHA itself relies on those same principles in this proposal.

The feasibility cases point in the same direction. *United Steelworkers of America v. Marshall*, 647 F.2d 1189 (D.C. Cir. 1981), and *American Iron & Steel Institute v. OSHA*, 939 F.2d 975 (D.C. Cir. 1991), recognize that technological and economic feasibility are judged at the industry level, not by focusing on the most marginal employer, but they also require OSHA to grapple seriously with the record and to explain its cost and feasibility judgments with enough clarity to permit judicial review. OSHA's own proposal cites those authorities and acknowledges that the 2016 fixed-ladder requirements were found technologically feasible and that this proposal is being justified principally as a deregulatory timing change rather than a repudiation of the safety rationale behind the original rule.

Against that legal backdrop, IHMM believes the **broader rollback option should be rejected** on the present record. In 2016, OSHA adopted a 20-year phaseout of cages and wells because it concluded that ladder safety systems and personal fall arrest systems were the more protective modern approach and that twenty years would generally align with the normal replacement cycle and useful life of fixed ladders, cages, and wells. OSHA stated at the time that employers would have "ample time" to plan and carry out the transition through normal business and replacement cycles rather than by retrofitting functioning ladders.

The current proposal does not establish that cages and wells are equivalent to personal fall arrest systems or ladder safety systems. To the contrary, OSHA expressly asks for evidence on whether cages and wells provide equivalent safety outcomes across industries and ladder configurations, which confirms that the agency does **not** presently have such a finding in hand. OSHA also acknowledges that it is unable to determine whether some of the fatalities or injuries avoided by the 2016 rule would occur in the affected subset of ladders if the 2036 deadline is removed. That admission matters. It may be enough to justify a narrower timing revision if OSHA believes the affected subset is small, but it is not enough to justify a categorical return to cages and wells as if they were proven equals.

IHMM therefore recommends that OSHA **decline** to repeal the requirement that fixed ladders over 24 feet ultimately move to personal fall arrest systems or ladder safety systems. Falls remain a major occupational hazard. BLS reports that in 2024, falls, slips, and trips caused 844 worker deaths nationwide, making them the second-deadliest event category that year. OSHA's own 2016 materials likewise describe falls as among the leading causes of serious injuries and deaths and estimate that the walking-working surfaces final rule would prevent substantial fatalities and lost-workday injuries. A rulemaking that softens the transition to more protective ladder systems should not be read as diminishing the seriousness of fall hazards.

That said, IHMM recognizes that OSHA may lawfully revisit the **timing** of compliance if the 2016 assumption about service life and replacement cycles was materially wrong. The proposal states that industry petitioners contend the retrofit costs are much greater than OSHA estimated, including claimed costs exceeding $1.2 billion to address more than 22,000 ladders in parts of the refining and chemical sectors, and OSHA estimates that cost savings in those sectors could exceed $3.6 billion if the deadline is removed. IHMM does not endorse those figures as established fact; OSHA itself says it seeks more evidence. But those cost concerns are serious enough to justify consideration of a narrower, conditional modification to the deadline.

If OSHA proceeds with the narrower approach, IHMM urges the agency to **pair any removal of the 2036 deadline with enforceable safeguards**. At minimum, OSHA should:
(1) retain 29 C.F.R. § 1910.28(b)(9)(i)(B) and (C) unchanged for new ladders and replaced sections;
(2) define with greater clarity when a "repair" becomes a "replacement" that triggers installation of a personal fall arrest system or ladder safety system;
(3) require employers that keep pre-November 19, 2018 fixed ladders over 24 feet in service with cages or wells beyond 2036 to perform and document periodic condition and service-life assessments by a qualified person, using the existing qualified-person concept already embedded in 29 C.F.R. § 1910.22(d)(3);
(4) require employers to prioritize retrofit where ladders are exposed to corrosive environments, frequent use, emergency use, difficult rescue conditions, or access to hazardous process equipment; and

(5) require re-evaluation after any fall incident, near miss, significant corrosion finding, process change, or structural alteration.

Those guardrails are not regulatory overreach; they are a practical way to harmonize the proposal with OSHA's existing subpart D framework. Section 1910.22 already requires safe loads, safe access and egress, regular inspection, maintenance, and repair. Section 1910.23 sets detailed fixed-ladder design and clearance requirements. Section 1910.30 requires training before employees are exposed to fall hazards, including recognition of fall hazards and proper procedures for the systems they use. If OSHA removes the hard deadline but leaves older ladders in service longer, it is entirely appropriate to strengthen the documentation and decision-making around those preexisting duties.

IHMM also urges OSHA to address the **special context of hazardous materials and process-risk facilities**. By OSHA's own account, the petition driving this rulemaking came from the refining and chemical sectors, and the agency specifically requests data regarding petroleum refineries, chemical manufacturing, and other industries. In IHMM's view, ladders in those settings deserve closer scrutiny because a fall may coincide with corrosive exposure, elevated process hazards, emergency isolation needs, difficult rescue, or the risk of a secondary hazardous-material release. For that reason, if OSHA removes the deadline, the final rule or preamble should expressly encourage risk-based prioritization of retrofits in refineries, chemical plants, tank farms, terminals, treatment and disposal facilities, and similar operations where the consequences of a fall can extend beyond the individual climber.

The proposal also has important implications for IHMM credential holders. **CSHMs**—whom IHMM identifies as safety leaders with expertise in safety management, business principles, and regulatory compliance—will be the professionals asked to translate any final rule into enterprise-level policy: ladder inventories, capital planning, inspection frequency, contractor oversight, multi-state compliance, and internal audit criteria. If OSHA finalizes a less prescriptive deadline without guardrails, the result will be greater uncertainty and inconsistent risk judgments across employers. Clear triggers and documentation requirements would make the rule more administrable and more defensible for CSHMs.

CSMPs—whose credential emphasizes technical safety expertise and management capability—will often bear the operational burden of implementation. They will need to decide, in real workplaces, whether a given activity is a repair or replacement, whether corrosion or structural degradation requires upgrade, whether training remains adequate, and whether a retained cage-or-well ladder is still reasonably safe under current conditions. OSHA should draft the final rule with those front-line compliance judgments in mind, not assume that generalized flexibility will administer itself.

CHMMs are also materially affected. IHMM describes the CHMM as a professional who handles, manages, or advises others on hazardous materials and related compliance duties in fields including environmental protection, safety, hazardous materials transportation, and security. By reasonable inference from those roles, CHMMs frequently advise facilities where fixed ladders are used to

access tanks, process vessels, emissions control equipment, loading racks, containment areas, and hazardous-material storage or treatment infrastructure. In those settings, a ladder fall is not merely a fall hazard; it can compromise emergency response, process integrity, and environmental protection. OSHA should therefore avoid a final rule that encourages indefinite reliance on legacy systems without documented risk review.

CHMPs are similarly affected, and in some respects more directly. IHMM describes the CHMP as a front-line hazardous materials practitioner experienced in handling hazardous materials, securing hazardous articles, responding to spills, and cleaning contaminated sites. Those are precisely the sorts of roles in which employees may be required to climb fixed ladders in time-sensitive, high-consequence circumstances. For CHMPs, the difference between a modern ladder safety system and a legacy cage-or-well ladder may carry both fall-protection implications and secondary chemical-exposure implications. OSHA should take care not to normalize a lower level of protection for front-line hazardous-materials practitioners working in already complex environments.

Finally, IHMM notes OSHA's statement that State Plans would not be required to adopt this deregulatory change because it does not impose additional or more stringent requirements. That may be legally correct, but it underscores the need for clarity in the federal rule. If some State Plans retain the current deadline while federal OSHA removes it, multi-state employers and the CSHM, CSMP, CHMM, and CHMP professionals advising them will face a patchwork of standards. OSHA should minimize that confusion by making plain in the preamble that employers remain free—and in many higher-risk cases should be expected—to prioritize earlier retrofits as a matter of sound risk management even where a federal fixed date is removed.

For these reasons, IHMM respectfully requests that OSHA finalize **only a limited, conditional revision** to § 1910.28(b)(9)(i)(D), if at all, and expressly reject any broader rollback that would treat cages or wells as equivalent fall protection on the current record. OSHA should preserve the modern endpoint for new and replaced ladders, add condition-assessment and risk-trigger safeguards for legacy ladders retained in service, and recognize the heightened consequences of falls in hazardous-materials and process-risk settings. That approach would remain consistent with the OSH Act, the governing case law, and the practical compliance realities faced by IHMM's credential holders.

IHMM Professional Credentials

The **Certified Safety and Health Manager® (CSHM®)** demonstrate the knowledge and skills necessary to understand general and business management principles; apply management systems; apply occupational health and safety, security, and environmental knowledge, principles, and standards; apply to utilize risk identification, management, and controls; and set related goals, objectives, and targets. Safety and health managers are responsible for ensuring environmental compliance and promoting workplace safety through proper and ongoing leadership. Critical decision-making skills and expertise are needed to effectively address safety, health, and

environmental hazards associated with operations and activities. We illustrate the workplace safety and risk management knowledge, skills, and abilities of the CSHM by including the CSHM blueprint in **Attachment One**.

The CSHM is accredited by the Council on Engineering and Scientific Specialty Boards [CESB], and IHMM is now preparing to submit the new blueprint of the CSHM for accreditation by the American National Standards Institute [ANSI]. The measure of the quality and strength of a certification program is to evaluate its accreditation status. Accreditation is a form of certification for the certifying organization, requiring conformance with strict standards of validity, reliability, and impartiality. A key feature of IHMM credentialing programs is that accreditation is essential because of the nature of work performed by IHMM certificants. The management of environmental, health, and safety issues in the workplace is governed by model regulations from the U.S. Department of Labor, the Occupational Safety and Health Administration, as well as from safety industry best practices regulations. Accredited credentials allow professionals to not only gain knowledge to use and implement these regulations but also to be recognized for their competency to properly manage and perform the functions of the profession.

The **Certified Safety Management Practitioner® (CSMP®)** demonstrates the knowledge, skills, and competencies necessary to understand general and business management principles, safety management methods and systems, safety management systems of ISO standards, and utilize risk identification, management, and hierarchy controls. Safety professionals are responsible for ensuring that employers' safety management systems remain compliant in the workplace and follow all applicable legislation for the worker and the workplace. We illustrate the workplace safety and risk management knowledge, skills, and abilities of the CSMP by including the CSMP blueprint in **Attachment Two.**

The CSMP is accredited by the Council on Engineering and Scientific Specialty Boards [CESB], and IHMM is now preparing to submit the new blueprint of the CSMP for accreditation by the American National Standards Institute [ANSI]. The measure of the quality and strength of a certification program is to evaluate its accreditation status. Accreditation is a form of certification for the certifying organization, requiring conformance with strict standards of validity, reliability, and impartiality. A key feature of IHMM credentialing programs is that accreditation is essential because of the nature of work performed by IHMM certificants. The management of environmental, health, and safety issues in the workplace is governed by model regulations from the U.S. Department of Labor, the Occupational Safety and Health Administration, as well as from safety industry best practices regulations. Accredited credentials allow professionals to not only gain knowledge to use and implement these regulations but also to be recognized for their competency to properly manage and perform the functions of the profession.

The **Certified Hazardous Materials Manager® (CHMM®)** is an environmental professional who has demonstrated, through education, experience, and examination, the ability to identify and assess the risks of hazardous materials, mitigate or eliminate those risks, and manage their impact on human health and the environment. A CHMM provides proper controls for material handling, transportation, and security throughout the life cycle of hazardous materials, from design and production through storage, recycling, and ultimate disposal. They apply scientific knowledge, engineering technologies, and best management practices in compliance with U.S. regulatory requirements. We illustrate the hazardous materials compliance under 49 CFR and the risk management knowledge, skills, and abilities of the CHMM by including the CHMM blueprint in **Attachment Three**.

The CHMM is accredited by the Council on Engineering and Scientific Specialty Boards [CESB] and by the American National Standards Institute [ANSI]. The measure of the quality and strength of a certification program is to evaluate its accreditation status. Accreditation is a form of certification for the certifying organization, requiring conformance with strict standards of validity, reliability, and impartiality. A key feature of IHMM credentialing programs, accreditation is essential because of the nature of work performed by IHMM certificants. The handling and management of hazardous materials and the transport of dangerous goods are governed by model regulations published by the US Environmental Protection Agency, US Department of Transportation, the U.S. Department of Labor, the Occupational Safety and Health Administration, as well as by the safety industry best practices regulations. Accredited credentials allow professionals to gain knowledge to use and implement these regulations, but to be recognized for their competency to properly manage and perform the functions of the profession.

The **Certified Hazardous Materials Practitioner® (CHMP®)** is a professional who has demonstrated, through education, experience, and examination, the ability to identify and assess the risks of hazardous materials, mitigate, or eliminate those risks, and manage their impact on human health and the environment. A CHMP provides proper controls for material handling, transportation, and security throughout the life cycle of hazardous materials, from design and production through storage, recycling, and ultimate disposal. They apply scientific knowledge, engineering technologies, and best management practices in compliance with U.S. regulatory requirements. We illustrate the hazardous materials compliance under 49 CFR and risk management knowledge, skills, and abilities of the CHMP by including the CHMP blueprint in **Attachment Four**.

The CHMP is accredited by the Council on Engineering and Scientific Specialty Boards [CESB] and by the American National Standards Institute [ANSI]. The measure of the quality and strength of a certification program is to evaluate its accreditation status. Accreditation is a form of certification for the certifying organization, requiring conformance with strict standards of validity, reliability, and impartiality. A key feature of IHMM credentialing programs, accreditation is essential because of the nature of work performed by IHMM certificants. The handling and management of hazardous materials and the transport of dangerous goods are governed by model regulations published by the US Environmental Protection Agency, US Department of Transportation, the U.S. Department of

Labor, the Occupational Safety and Health Administration, as well as by the safety industry best practices regulations. Accredited credentials allow professionals to not only gain knowledge to use and implement these regulations but to be recognized for their competency to properly manage and perform the functions of the profession.

Recertification of Credentials. After recognizing the strength of the content of the credential, and then its accreditation comes the requirements imposed by the certification body [IHMM] for the periodic recertification of the credential. IHMM requires that the CHMM and CHMP holders recertify their competency to continue to hold the credential every 5 years based on the contents of the certification blueprint. This ensures OSHA and every public and private sector entity that relies on the professionals who hold these credentials, who are constantly upgrading their skills, knowledge, and abilities in their communities of practice.

Training. IHMM's commitment to the excellence of its professional credentials, and throughout DOL/OSHA's work with employers, is the emphasis on the necessity of receiving training, and IHMM applauds the dedication to training and education as we stand behind and support our credential holders. IHMM has a Foundation, the Hazardous Materials Society [HMS] https://hazmatsociety.org/ whose reason to exist is principally a focus on the education and training of IHMM's certificants.

Here https://hazmatsociety.org/education-training/, our certificants can easily find and take an extraordinary range of courses to upgrade and expand their knowledge, skills, and abilities.

If there are specific areas where OSHA-required training can be made available to IHMM certificants, then we are pleased to make these resources available to all.

We appreciate the opportunity to offer IHMM's comments in this proceeding and again commit to working with OSHA in every way possible to advance IHMM's professional credentials that help create safer workers, safer communities, and a safer environment throughout the nation.

Sincerely,

Eugene A. Guilford, Jr., CAE
Executive Director

About the Institute of Hazardous Materials Management - https://ihmm.org/

Founded in 1984, the Institute of Hazardous Materials Management (IHMM), is a not-for-profit organization. IHMM has been protecting the environment and the public's health, safety, and security through the creation of credentials recognizing professionals who have demonstrated a high level of knowledge, expertise, and excellence in the management of hazardous materials, dangerous goods transportation, environmental protection, health, and workplace safety.

Over 18,000 homeland security, environmental protection, engineering, health sciences, transportation, and public safety professionals have earned IHMM's accredited ***Certified Hazardous Materials Manager®*** *(CHMM®) credential. IHMM also administers the* ***Certified Hazardous Materials Practitioner®*** *(CHMP®), the* ***Certified Dangerous Goods Professional®*** *(CDGP®), the* ***Associate Hazardous Materials Manager®*** *[AHMM®], and the* ***Certified Dangerous Goods Trainer®*** *(CDGT®) credentials. IHMM also works with colleges and universities throughout the United States and, to that end, offers the* ***Student Certified Hazardous Materials Manager®*** *(ST/CHMM®) and* ***Student Associate Safety and Health Manager®*** *[ST/ASHM®] credentials. In 2019, IHMM acquired ISHM and now manages the* ***Certified Safety and Health Manager®*** *[CSHM®],* ***Certified Safety Management Practitioner®*** *[CSMP®],* ***Associate Safety and Health Manager®*** *[ASHM®],* ***Certified School Safety Specialist®*** *[CSSS®], and* ***Certified School Safety Manager®*** *[CSSM®] credentials*.

Attachment One

Certified Safety and Health Manager® [CSHM®]

Certification Blueprint

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

CERTIFIED SAFETY AND HEALTH MANAGER® (CSHM®)
EXAMINATION SPECIFICATION (BLUEPRINT)
Effective 2023

The Certified Safety and Health Manager (CSHM) demonstrates knowledge and skills necessary to understand general and business management principles; apply management systems; apply occupational health and safety, security, and environmental knowledge, principles, and standards; apply to utilize risk identification, management, and controls; and set related goals, objectives, and targets.

Safety and health managers are responsible for ensuring environmental compliance and promoting workplace safety through proper and ongoing leadership. Critical decision-making skills and expertise are needed to effectively address safety, health, and environmental hazards associated with operations and activities.

The CSHM examination is a testing instrument designed to evaluate a candidate's minimal competency in the field of safety and health management. The exam is constructed with two cognitive levels.

- Declarative – requires a candidate to recall and retain knowledge.
- Application - requires a candidate to apply the knowledge to a scenario.

This Specification Blueprint offers guidance to candidates by outlining the domains and tasks covered in the examination. The blueprint reflects the consensus of the profession validated via a survey of what safety and health managers do in practice. The blueprint below describes the testing objectives covered by the examination.

The CSHM Test Specification Blueprint lists below each domain and competencies with tasks given under each domain. A percentage label accompanies each domain in this Specification Blueprint. This percentage represents the proportion of the actual CSHM examination devoted to that domain.

SECTION	DOMAINS AND COMPETENCIES/TASKS	% Of Exam
1	**Planning, Leadership, and Employee Involvement**	**22.13**
1.1	Declarative: Describe differences between policies and goals.	
1.2	Declarative: Identify safety and health resource needs including budgeting, certifications, standards, equipment, policies, procedures.	
1.3	Declarative: Identify differences between a union and non-union shop as they relate to safety and health.	
1.4	Procedural: Given a scenario, identify departments or divisions needed to cooperate in safety and health efforts.	
1.5	Procedural: Given a scenario, describe resources used to mitigate risk via policies and recommendations.	
1.6	Declarative: Identify ethical practices within safety and health.	
1.7	Declarative: Identify policies and procedures to increase safety awareness.	
1.8	Declarative: Identify quality principles that apply to safety and health.	
1.9	Declarative: Identify safety and health management systems.	
1.10	Procedural: Given a scenario, identify applicable federal environmental regulations.	
1.11	Procedural: Given a scenario, apply the applicable voluntary-consensus standard.	
1.12	Procedural: Given a scenario, describe the importance of health and safety in the context of an organization.	
2	**Communication and Resources**	**15.51**
2.1	Declarative: Identify ways to communicate corporate safety education.	
2.2	Declarative: Identify different educational and training requirements at different levels of the organization.	
2.3	Declarative: Identify barriers to participation.	
2.4	Declarative: Identify key hazards and risks, their categories, and the differences between them.	
2.5	Declarative: Identify core OH&S objectives and key documents.	
2.6	Procedural: Given a scenario, analyze different ways that work gets done to communicate requirements across the enterprise.	
3	**Risk Assessment and Control**	**19.48**
3.1	Declarative: Define, analyze, assess, and prioritize risk.	
3.2	Declarative: Identify corrective action.	
3.3	Declarative: Prioritize the effectiveness of control measures.	
3.4	Procedural: Given a scenario, apply the appropriate rating or approval (e.g., UL, ANSI, FM, NIOSH).	
3.5	Declarative: Identify the core components of an effective policy.	
4	**Operations and Programs**	**15.02**
4.1	Procedural: Given a scenario, identify the appropriate consensus standard (e.g., ISO, ANSI, ASTM, NFPA).	

4.2	Procedural: Given a scenario, identify compliance management operations and programs (e.g., ISO 45001, ANSI Z10, OHSAS 18001).	
4.3	Procedural: Given a scenario, identify fire prevention and emergency safety preparedness principles and practices.	
4.4	Procedural: Given a scenario, identify crisis management and business continuity principles and practices in the event of an emergency.	
4.5	Declarative: Identify data storage security principles and practices.	
4.6	Declarative: Identify requirements to manage and keep confidential employee data and documentation.	
4.7	Declarative: Identify soil classifications and the application to work in an excavation.	
4.8	Declarative: Identify control measures for blood-borne pathogens.	
4.9	Procedural: Given a scenario, classify waste according to the hazard(s).	
4.10	Procedural: Given a scenario, determine appropriate air sampling methodologies.	
4.11	Procedural: Given a scenario, determine whether exposure is excessive.	
4.12	Declarative: Identify elements of a process safety management program.	
4.13	Procedural: Given a multi-employer worksite, identify elements of a control program.	
4.14	Procedural: Given a scenario, identify risk factors and controls.	
5	**Monitoring and Measurement**	**11.98**
5.1	Declarative: Identify techniques for prioritization of control.	
5.2	Procedural: Given a specific standard, identify the regulatory agency responsible for the standard.	
5.3	Procedural: Given a specific standard, identify whether the standard is mandatory or voluntary.	
5.4	Procedural: Given an initial assessment of existing hazards, identify the most urgent hazard.	
5.5	Procedural: Given safety statistical data, identify unsafe behaviors.	
5.6	Procedural: Given a scenario, determine effective ways to communicate preventive action.	
5.7	Procedural: Given a scenario that utilizes new regulatory information, determine an effective methodology to promote safety for a specific industry.	
5.8	Procedural: Given an audit or different inspections, recommend changes.	
5.9	Procedural: Given a scenario, determine whether a metric is a leading or lagging indicator.	
6	**Incident Investigation and Analysis**	**15.88**
6.1	Procedural: Given a scenario, identify causal factors.	
6.2	Procedural: Given an incident investigation scenario, identify corrective action.	
6.3	Procedural: Given a set of injury data, determine priorities.	
6.4	Procedural: Given a scenario, determine whether an incident is recordable or reportable.	

Domains 1,2,3,4,5 and 6 incorporate the use of the ASSP/ANSI standard Z10.0

For more information about the Certified Safety and Health Manager (CSHM) certification program, including eligibility requirements and application procedures, see the IHMM Candidate Handbook available at www.ihmm.org. If you have questions about the CSHM Blueprint, please contact M. Patricia Buley at pbuley@ihmm.org.

Attachment Two

Certified Safety Management Practitioner® [CSMP®]

Certification Blueprint

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

CERTIFIED SAFETY MANAGEMENT PRACTITIONER® (CSMP®) EXAM SPECIFICATION (BLUEPRINT)

Effective Fourth Quarter of 2022

The Certified Safety Management Practitioner (CSMP) demonstrates knowledge, skills, and competencies necessary to understand general and business management principles, safety management methods and systems, safety management systems of ISO standards, and utilize risk identification management and hierarchy controls.

Safety professionals are responsible for ensuring that employers' safety management systems remain compliant in the workplace, and follow all applicable legislation for the worker and the workplace.

The CSMP examination is a testing instrument designed to evaluate a candidate's minimal competency in the areas of the blueprint. The exam is constructed with two cognitive levels.

- Declarative – requires a candidate to recall and retain knowledge.
- Application - requires a candidate to apply the knowledge to a scenario.

This Specification Blueprint offers guidance to candidates by outlining the domains and tasks covered in the examination. The blueprint reflects the consensus of the profession validated via a survey of what safety managers do in practice. The blueprint below describes the testing objectives covered by the examination.

The CSMP Specification Blueprint lists below each domain and competencies with tasks given under each domain. A percentage label accompanies each domain in this Specification Blueprint. This percentage represents the proportion of the actual CSMP examination devoted to that domain.

SECTION	DOMAINS AND COMPETENCIES/TASKS	% Of Exam
1	**Workplace Safety**	**24.86**
1.1	Declarative: Identify the elements of a written safety policy.	
1.2	Declarative: Identify the elements of the SMART model for setting goals.	
1.3	Declarative: Identify the applicable health and safety resources.	
1.4	Application: Given a scenario or table, describe the differences between leading and lagging indicators.	
1.5	Application: Given a scenario, describe the impacts, either negative or positive, upon worker participation.	
1.6	Application: Given a scenario, determine the need for hazard reporting.	
1.7	Declarative: Describe ways to access safety and health information.	
1.8	Declarative: Identify the positional responsibilities for safety.	
1.9	Application: Given a statistical measure, identify the correct formula.	
1.10	Declarative: Describe different inspectors or inspection personnel who inspect the workplace for safety hazards.	
1.11	Declarative: Identify health hazards.	
1.12	Declarative: Identify safety hazards.	
1.13	Declarative: Identify the correct order of steps to conduct an incident investigation.	
1.14	Declarative: Identify the hazards associated with emergency and non-routine situations.	
1.15	Declarative: Identify workplace hazards.	
1.16	Declarative: Identify the control options and components of a hazard control plan.	
1.17	Application: Given a scenario, describe the appropriate means to confirm control effectiveness.	
1.18	Declarative: Identify the types of general orientation practice or program awareness courses for onboarding in the workplace.	
1.19	Declarative: Differentiate between employer and employee responsibilities.	
1.20	Declarative: Identify the steps needed to implement a workplace safety program.	
1.21	Application: Given a scenario about a workplace safety program shortcoming, describe the opportunities for improvement.	
1.22	Declarative: Identify the elements of effective communication.	
1.23	Declarative: Identify the basic components of drug and alcohol safety program testing (i.e., pre-hire testing, accident testing, post-incident testing; do not include random testing).	
2	**Regulatory**	**14.68**
2.1	Application: Given a scenario an injury or illness event, determine recordability	
2.2	Declarative: Identify the appropriate or required first aid kit in the workplace per legislation or hazard analysis.	

2.3	Declarative: Identify the acronyms for standard-setting bodies.	
2.4	Application: Given a regulation or standard, identify whether it is federal/state/province legislation or an industry standard.	
2.5	Application: Given a situation, identify the applicable laws and regulations (local, state/province, federal/national).	
2.6	Declarative: Identify the basic steps of an enforcement or regulatory visit.	
3	**General Health and Safety Knowledge**	**20.83**
3.1	Declarative: Identify the elements of the Hierarchy of Controls.	
3.2	Declarative: Identify the various elements of a Safety Management System (ISO, SHARP, VPP).	
3.3	Declarative: Identify the basic concepts of hazard assessment, job hazard analysis (JHA), or job safety analysis (JSA).	
3.4	Declarative: Identify the four goals of industrial hygiene (anticipate, recognize, evaluate, and control).	
3.5	Declarative: Define basic industrial hygiene terms (e.g., toxicology, absorption, dose, hearing testing, lung testing).	
3.6	Application: Given an industrial hygiene goal, identify the settings or conditions that require the use of respiratory protection, hearing conservation, or exposure to chemicals.	
3.7	Declarative: Utilize a safety data sheet to determine the hazards and precautions to be taken for a given chemical.	
3.8	Application: Given a situation, select the appropriate personal protective equipment (PPE).	
3.9	Declarative: Identify the various machine guarding standards (ANSI, ASME) and regulations (local, state, and national).	
3.10	Declarative: Identify the hazards associated with hazardous locations on machines (point of operation, power transmission, etc.) and ways to control employee exposure to the hazards.	
3.11	Application: Given a scenario, apply the lockout and tag-out regulations (local, state, and national).	
3.12	Application: Given a situation, determine the proper use of hand and power tools including minimum safety requirements (guarding, personal protective equipment, ergonomics, etc.).	
3.13	Declarative: Identify the industry standards (ASME, etc.) and regulations (local, state, and national) related to types of slings and lifting equipment.	
3.14	Application: For a given respirator, explain its proper uses and limitations.	
3.15	Declarative: Define electrical terminology. (Volts, amperage, resistance, etc.).	
3.16	Declarative: Identify the causes and effects of electrical shock.	
3.17	Declarative: Identify the appropriate personal protective equipment and tools for use around live electrical equipment.	
3.18	Declarative: Identify the steps to ensure electrical safety. (Lockout, tag out, de-energize, permit to work, barricades; focus on basic terms.)	
3.19	Declarative: Identify the basic requirements for emergency response plan elements for hazardous substances release.	

3.20	Declarative: Identify the hazards associated with compressed gases including flammable gases, LP gas, and welding and cutting gases.	
3.21	Declarative: Identify the basic concepts, safety, and industrial hygiene requirements and regulations related to welding, cutting, brazing, and electric arc welding including basic control methods.	
3.22	Declarative: Identify the various types of cranes and hoists and understands the safety requirements for operating or working around this equipment.	
3.23	Declarative: Describe the concepts of Ionizing and Non-Ionizing Radiation (effects, definitions, eliminate a source of exposure, electric magnetic PPE, signage).	
3.24	Declarative: Identify the health and safety requirements for working with and transporting propane.	
3.25	Declarative: Identify the types of fire protection systems, alarm systems, and fire prevention concepts.	
3.26	Declarative: Identify the safety and regulatory requirements for fall protection, ladder safety, barriers, and use of scaffolds.	
3.27	Declarative: Identify the safety and regulatory requirements for operations of powered industrial trucks (various types) including the requirements for operator training.	
3.28	Declarative: Identify the requirements and standards for warehouse safety including industrial trucks, stacking, walking/working surface, forklift, chocking, training PIT operators.	
3.29	Declarative: Identify the regulations for drinking and potable water and sanitation in workplace settings, i.e., break areas, work areas, lunchroom, first aid station.	
3.30	Declarative: Identify the safety and regulatory requirements for operations of mobile elevated platforms (aerial lifts, boom lifts, harness/fall arrest devices) including requirements for operator training.	
3.31	Declarative: Identify the adult first aid, CPR, and AED requirements and certification for specific industries.	
3.32	Declarative: Identify the requirements for OSHA 300 record-keeping and other employer-related records for occupational health and safety logs.	
3.33	Application: Given a GHS for a harmful substance, describe the effects of the substance on humans and apply the safety, health, and regulatory requirements for controlling exposure to the substance.	
4	**Accident Investigation and Prevention**	**16.19**
4.1	Declarative: Identify the steps to conduct an accident investigation, including who, what, where, when, how, and why.	
4.2	Declarative: Identify the types of accidents that must be reported to OSHA or local authority within a certain time frame, such as loss of eye, amputation, or other serious injury, or death.	
4.3	Declarative: Identify what is an OSHA recordable statistic.	
4.4	Declarative: Identify what is an OSHA non-recordable statistic.	
4.5	Declarative: Identify the available resources that can assist with trainings to help prevent accidents.	
4.6	Declarative: Identify the three steps of posting requirements.	

4.7	Application: Given a scenario, explain the importance of a team effort to conduct an accident investigation.	
4.8	Declarative: Identify the sources for locate previous citations.	
5	**Safety Management System Structure**	**13.69**
5.1	Declarative: Identify the safety improvements that should be implemented for the general workplace inspection.	
5.2	Declarative: Identify the elements of a health and safety management system.	
5.3	Application: Given data, calculate the incident rates.	
5.4	Application: Given incident rates, predict the highest probability of an accident occurring.	
5.5	Declarative: Identify the emergency action plans (EAP) for areas of jurisdiction and/or responsibility.	
5.6	Declarative: Identify the need for mutual aid agreements.	
5.7	Application: Given a scenario, describe the importance of management and/or leadership commitment to a safety management program.	
5.8	Declarative: Describe the effect of safety management programs on recordable accidents in the workplace.	
5.9	Declarative: Identify the steps of onboarding or orientation of new employees to the workplace related to HR and Safety and Health.	
5.10	Declarative: Identify the steps of orientation and coordination of vendors/contractors to the workplace related to HR and Safety and Health.	
5.11	Declarative: Describe the union member involvement in the specific/non-specific Health, Safety, and Environment (HSE), and safety management systems.	
6	**Professional Standards**	**9.75**
6.1	Declarative: Identify the elements of the IHMM Code of Ethics.	
6.2	Application: Given a scenario, apply the appropriate IHMM Code of Ethics.	
6.3	Declarative: Identify the consequences for violations of the IHMM Code of Ethics.	
6.4	Declarative: Describe the individual legal, moral, and ethical responsibility to the requirements of the IHMM Code of Ethics.	
6.5	Declarative: Identify the IHMM committee that is responsible for oversight of the IHMM Code of Ethics.	

Domains 1,2,3,4, and 5 incorporate the use of ISO 45001, Occupational Health and Management Systems

For more information about the Certified Safety Management Practitioner (CSMP) certification program, including eligibility requirements and application procedures, see the IHMM Candidate Handbook available at www.ihmm.org. If you have questions about the CSMP Blueprint, please contact M. Patricia Buley at pbuley@ihmm.org.

Attachment Three

Certified Hazardous Materials Manager® [CHMM®]

Certification Blueprint

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

CERTIFIED HAZARDOUS MATERIALS MANAGER (CHMM®) EXAM SPECIFICATIONS (BLUEPRINT)

Effective 2021

A Certified Hazardous Materials Manager (CHMM) is a professional who has demonstrated, through education, experience and examination, the ability to identify and assess the risks of hazardous materials, mitigate, or eliminate those risks, and manage their impact on human health and the environment.

A CHMM provides proper controls for material handling, transportation, and security throughout the life cycle of hazardous materials, from design and production through storage, recycling, and ultimate disposal. They apply scientific knowledge, engineering technologies, and best management practices in compliance with U.S. regulatory requirements.

The CHMM examination is a testing instrument designed to evaluate candidate's minimal competency in the field of hazardous materials management. This Specification Blueprint is intended to offer guidance to candidates by outlining the domains and tasks that will be covered on the examination. The blueprint reflects the consensus of the profession validated via a survey of what hazardous materials managers do in practice. The Blueprint below describes the subject matter covered by the examination. All test items will be drawn from among the domain areas of the Specification Blueprint.

This Specification Blueprint lists below each domain and competencies with tasks given under each domain. A percentage label accompanies each domain in this Specification Blueprint. This percentage represents the proportion of the actual CHMM examination devoted to that domain. Tasks provide reference for activities conducted under each domain.

DOMAINS AND COMPETENCIES/TASKS	% of Exams
1 Planning for Materials with Hazards	**9.35**
1.1 Identify hazardous materials by name.	
1.2 Given four SDS, identify the hazardous material.	
1.3 Given a laboratory report (boiling point, classification, PH), identify the constituent that makes this mixture hazardous.	
1.4 Given a scenario about pollution prevention, identify the preferred strategy that should be used.	
1.5 Identify examples of effective recycling.	
1.6 Given a scenario involving pollution, identify the pollution impacts and the related regulations.	
1.7 Given a scenario about a Pollution Prevention Opportunity Assessment (PPOA), identify the elements and sequence of events.	
1.8 Given a scenario about hazardous materials and process, identify the impact to air.	
1.9 Given a scenario hazardous materials and process, identify the impact to water resources.	
1.10 Given a scenario hazardous materials and process, identify the impact to soil.	
1.11 Identify the characteristics of minor and major permits.	
1.12 Identify the characteristics of the permit application and permit review.	
1.13 Identify the characteristics of inspection, training, and waste requirements of permitting.	

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1.14 Determine the threshold quantity of a regulated substance in a process required to comply with EPA's risk management program regulation.	
1.15 Identify the components of Standard Operating Procedures (SOP).	
2 Shipping and Transporting Hazardous Waste and Hazardous Materials	**10.34**
2.1 Given a scenario about hazmat transportation, identify requirements.	
2.2 Given a scenario about packaging, identify the appropriate container.	
2.3 Given a scenario about transporting hazardous waste or hazardous materials and the method of transportation, identify the required labeling.	
2.4 Given a scenario about shipping domestically or internationally, determine how hazardous materials should marked.	
2.5 Given a scenario, identify what information needs to be included in the shipping documents, and the proper shipping description format, and order of information.	
2.6 Given a shipment scenario, identify the required placarding.	
2.7 Identify conditions under which shipments, or portions of shipments, can be accepted or rejected.	
3 Store Materials with Hazard	**9.22**
3.1 Identify storage location site requirements for property containing hazardous materials/waste.	
3.2 Given a scenario about controlling inventory, identify the regulations that apply to that inventory.	
3.3 Given a scenario about storage of hazardous waste/material, identify the facility signage requirements.	
3.4 Given a scenario about storing a hazardous waste/material, identify proper container labeling requirements.	
3.5 Given a scenario about controlling access to hazardous materials/waste, identify how to control access.	
3.6 Given a scenario, identify how storage meets requirements.	
4 Facility Operations Involving Materials with Hazards	**9.12**
4.1 Given a type of hazardous material/waste, identify the engineering control that should be used to treat the material/waste.	
4.2 Given a type of hazardous material/waste, identify the engineering control that should be used to store of the material/waste.	
4.3 Given a type of hazardous material/waste, identify the engineering control that should be used to dispose of the waste.	
4.4 Given a scenario about a process, identify regulatory training record requirements.	
4.5 Given an SDS, identify the hazardous communication requirements that are needed for that material.	
4.6 Given a hazardous material, identify the PPE that should be used when sampling, handling, i.e., sweeping, shoveling, etc., the material.	
4.7 Given a scenario, identify the testing procedures needed to determine the hazard associated with the material.	
4.8 Given a hazardous material, determine health, safety, and security requirements.	
5 Disposition of Materials with Hazards	**8.46**
5.1 Identify typical components of a waste profile.	
5.2 Given a scenario about a waste material, identify the disposition options.	
5.3 Identify what a generator uses to quality/disqualify a disposal facility.	
5.4 Given a scenario about a material (soil, chemical product, construction waste, etc.), identify the disposition requirements for the material.	

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5.5 Given a scenario about the final disposition of a hazardous waste under RCRA, identify how final disposition is confirmed and documented.	
5.6 Given a scenario where there is a release from a container, identify how the release should be managed.	
5.7 Given a waste disposition scenario, identify how emissions (air) should be managed.	
5.8 Given a waste disposition scenario, identify how discharges (water) should be managed.	
6 Record Keeping and Reporting	**7.49**
6.1 Given a scenario about a spill of a hazardous material, identify the reporting requirements (timeframe, threshold reporting quantities, who receives the reports.)	
6.2 Given a scenario, identify the record keeping requirements for the relevant regulatory program (RCRA, EPCRA, TSCA, UST, CWA, CAA, CERCLA, HMTA, and SARA).	
7 Training Personnel	**8.07**
7.1 Given a scenario, identify the training requirements for the relevant regulatory program (RCRA, EPCRA, TSCA, UST, CWA, CAA, CERCLA, HMTA, SARA, and OSHA.)	
7.2 Given an activity involving materials with hazard, identify the competencies that would be needed for that activity (could include identifying hazards, determine if respiratory protection is needed, determine PPE needed, decontamination sequences, site worker needs a physical).	
7.3 Given a scenario about a job, identify the types of training that are required.	
7.4 Given a scenario about training, identify the assessment that should be used.	
7.5 Given a scenario about a Hazmat event when conducting drills and exercises, identify which types of agencies should be involved.	
7.6 Given a regulatory requirement, determine the adequacy of the training content and duration.	
8 Response and Recovery	**7.95**
8.1 Given a scenario about a spill or release, identify the chemical and physical hazards of the material, the quantity of material, and the location of the spill /release.	
8.2 Given a scenario about a spill or release, identify the amount of material that has been spilled or released.	
8.3 Identify the conditions that require the incident to be reported to the National Response Center.	
8.4 Given a scenario about a spill or release, identify how to mitigate the impact to receptors.	
8.5 Identify the steps to develop a recovery or incident action plan.	
8.6 Given an accident situation, identify data needed to investigate the cause of the incident.	
9 Remediation	**6.5**
9.1 Given a scenario about a spill or release, determine how to identify the constituents of concern, the vertical and horizontal extent of the constituents of concern, and the characteristics of the receiving media.	
9.2 Given a release scenario, determine the appropriate remedial objectives.	
9.3 Given a scenario about physical characteristics of a contaminant and a situation involving the contaminant, identify the treatment option that should be used to remediate the contaminant.	
9.4 Given a scenario about a remedial technology that was selected, identify the tools that should be used to ensure remedial action objectives are achieved.	
9.5 Identify capital and recurring costs (O&M costs) associated with a selected remedial action.	
9.6 Given a scenario and remediation technology, identify redevelopment considerations and pitfalls.	
9.7 Given soil analytical results, determine if the clean-up standard has been achieved.	

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10 Management Systems	**6.58**
10.1 Given a scenario, identify which regulations would apply to a multi-media program.	
10.2 Given a scenario, identify the requirements for the maintenance and retention of records.	
10.3 Given a scenario, identify how the investigator can determine if a regulation is current.	
10.4 Given a scenario, identify knowledge needed to participate in regulation development.	
10.5 Given a scenario, identify the required interested parties and the process for the interested parties to communicate.	
10.6 Given a scenario, what are the required public outreach mechanisms?	
10.7 Identify elements of a management system audit and difference(s) from a compliance audit.	
10.8 Identify variables in a financial analysis.	
10.9 Given a scenario, describe operations that require a program.	
11 Environmental Studies	**6.35**
11.1 Given a scenario about a property transfer (sales or purchase of property), describe the required environmental due diligence.	
11.2 Given a scenario where lead-based paint, asbestos, and other regulated materials are thought to be present, describe how a building survey should be conducted.	
11.3 Given a regulatory framework, describe the required process and output.	
11.4 Given a scenario of analytical data, identify contaminants of concern.	
11.5 Given a scenario of a source of contamination, describe likely exposure routes.	
12 Health and Safety	**10.57**
12.1 Given a concentration of a contaminant of concern, identify exposure routes and susceptible populations that may be affected.	
12.2 Given screening thresholds, identify potential hazardous material exposure routes.	
12.3 Given a scenario, identify tasks to complete a job, the hazards of those tasks, and the control of those hazards.	
12.4 Determine process safety management.	
12.5 Identify recommended basic elements of an OSHA-compliant site safety plan.	
12.6 Identify recommended elements of an emergency response plan.	
12.7 Given the presence of hazardous materials, identify the appropriate containment.	
12.8 Identify labeling requirements for products.	

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Attachment Four

Certified Hazardous Materials Practitioner® [CHMP®]

Certification Blueprint

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

CERTIFIED HAZARDOUS MATERIALS PRACTITIONER (CHMP®) EXAM SPECIFICATIONS (BLUEPRINT)

Effective Q4/2022

A Certified Hazardous Materials Practitioner (CHMP) is a professional experienced in handling hazardous materials in a wide variety of specialties, such as safety, environmental protection and compliance, and transportation. The CHMP professional focuses on technical knowledge and expertise in handling hazardous materials.

A CHMP provides proper controls for material handling, transportation, and security throughout the life cycle of hazardous materials, from design and production through storage, recycling, and ultimate disposal. They apply scientific knowledge, engineering technologies, and best management practices in compliance with U.S. regulatory requirements.

The CHMP examination is a testing instrument designed to evaluate a candidate's minimal competency in the field of hazardous materials management. This Specification Blueprint offers guidance to candidates by outlining the Domains and Tasks covered in the examination. The Blueprint reflects the consensus of the profession validated via a survey of what hazardous materials managers do in practice. The Blueprint below describes the subject matter covered by the examination. All test items come from the Domain areas of the Specification Blueprint.

This Specification Blueprint lists each Domain and Competencies with Tasks given under each Domain. A percentage of the exam accompanies each Domain in this Specification Blueprint. This percentage represents the proportion of the actual CHMP examination devoted to that Domain. The Tasks provide a reference for activities conducted under each Domain.

DOMAINS AND COMPETENCIES/TASKS		% of Exams
1	**Identification, Handling, and Transport of Hazardous Materials**	**35.58%**
1.1	Declarative -- Identify management, transport, treatment, and disposal regulations for hazardous materials	
1.2	Declarative -- Identify mandated training (Example: HAZWOPER training.)	
1.3	Declarative -- Identify the difference(s) between DOT hazardous material, EPA/RCRA hazardous waste, and OSHA hazardous substance	
1.4	Declarative -- Identify generator, transporter, and TSDF standards	
1.5	Declarative -- State criteria for identifying the characteristics of hazardous waste and for listing hazardous waste	
1.6	Declarative -- Identify standards for VSQG, SQG, LQG, and generators of Universal Waste	
1.7	Declarative -- Identify shipping papers, labels, markings, placarding, packaging, and record keeping requirements	

1.8	Declarative -- Identify standards for managing specific hazardous waste, standards for owners and operators of TSDF, land disposal restrictions (LDR), and standards for universal waste management
1.9	Declarative -- Identify waste minimization activities
1.1	Declarative -- Identify waste record and reporting requirements
2	**Management of Emergencies & Incidents (E&I) 18.46%**
2.1	Procedural - Given a scenario, determine resources needed to provide an HSP and emergency planning and training; include an employee right to know (RTK) and access to safety data sheets (SDS)
2.2	Procedural -- Given a scenario about an incident, determine the size and role and responsibilities of the incident command system (ICS)
2.3	Procedural -- Given a scenario, determine if record keeping and reporting are necessary according to state and federal regulations and requirements
3	**Sampling and Analysis of Hazardous Materials/Waste 15%**
3.1	Declarative - Identify requirements of a Waste Analysis and Sampling Plan (WASP)
3.2	Declarative - Identify how and when to use different types of direct-reading instruments, such as Draeger Tubes, OVA = Organic Volatile Analyzer, CGM = Combustible Gas Meter, FLID = Flame Ionization Detector, PID = Photoionization Detector
3.3	Application - Given a scenario for a specific waste matrix, describe the sampling methods, sampling equipment, and sample preservation methods.
3.4	Declarative - Identify how specific analytical results correlate to waste characterization and specific treatment standards
3.5	Declarative - Identify standardized test methods used in waste characterization and/or determining DOT hazard class
3.6	Declarative - Identify proper sampling procedures and pertinent sampling media for the establishment of appropriate administrative and engineering controls
4	**Site Investigation and Remediation 14.04%**
4.1	Declarative - Identify potential physical or chemical hazards that may arise when a task is being performed and determine the engineering controls, administrative controls, and PPE requirements
4.2	Declarative - Identify procedures to conduct a site investigation/assessment
4.3	Declarative - Identify appropriate abatement methods based on investigation and risk assessment data
4.4	Declarative - Identify site hazard characteristics and select appropriate administrative and engineering controls including PPE
4.5	Declarative - Identify steps for long-term monitoring of hazardous waste
5	**Program and Project Management 16.92%**
5.1	Declarative - Identify hazardous waste programs scope including managing cradle-to-grave responsibility

5.2	Declarative - Identify requirements of the Hazard Communication Standard (HCS)
5.3	Declarative - Identify training requirements for hazardous materials for OSHA, RCRA, and DOT
5.4	Declarative - Identify OSHA training requirements for general requirements and respiratory protection

For more information about the Certified Hazardous Materials Practitioner certification program, including eligibility requirements and application procedures, see the IHMM Candidate Handbook at www.ihmm.org. If you have questions about the CHMP Blueprint, please contact M. Patricia Buley at pbuley@ihmm.org.