April 10, 2026

Benjamin D. Kochman,
Deputy Administrator, Pipeline and
Hazardous Materials Safety Administration
Docket Management System;
U.S. Department of Transportation,
Docket Operations, M–30, Ground
Floor, Room W12–140, 1200 New Jersey
Avenue SE, Washington, DC 20590–
0001.

Concerning: Docket PHMSA-2023-0111; RIN 2137-AF64

Submitted to Regulations. Gov

Dear Deputy Administrator Kochman,

The Institute of Hazardous Materials Management [IHMM] is pleased to submit comments concerning the docket cited above regarding the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Notice of Proposed Rulemaking under Docket No. **PHMSA-2023-0111; RIN 2137-AF64** .

Founded in 1984, the Institute of Hazardous Materials Management® (IHMM®) is a globally recognized, independent certifying organization. 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 Hazardous Materials Manager® [CHMM®], the Certified Hazardous Materials Practitioner® [CHMP®], and the Certified Dangerous Goods Professional® [CDGP®].

All three of these 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 CHMM, CHMP, and CDGP 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 draws attention to these three [3] professional credentials, consistent with reliance on The National Technology Transfer and Advancement Act of 1995 (Public Law 104-113), federal law that promotes collaboration between federal research institutions and the private sector. It aims to accelerate innovation by facilitating the transfer of government-developed technologies to industry and encouraging the use of voluntary consensus standards. This federal statute was implemented largely through OMB Circular A-119, first issued in 1998 and updated in 2016, and further by NIST Conformity Assessment Guidance (15 CFR Part 287).

> ***According to the Office of Management and Budget (OMB), Circular A–119, " Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," government agencies must use voluntary consensus standards wherever practical in the development of regulations.***

IHMM commends DOT for undertaking this proposed rulemaking and makes the point that in harmonizing transportation regulations government hazardous materials and dangerous goods in the United States with international standards, it becomes critically important to not only harmonize standards for performance but also to harmonize who in a company transporting or causing the transportation of hazardous materials and dangerous goods is responsible for their safe transportation.

Common throughout the world, and particularly in the European Union, one finds the regulatory impetus behind the appointment of a dangerous goods safety advisor [DGSA], a person certified to provide advice to undertakings whose activities include the consignment, carriage, or the related packing, loading, filling or unloading of dangerous goods, to monitor compliance with legal requirements and to ensure the preparation of an annual report.

IHMM strongly encourages DOT/PHMSA to use its existing statutory and regulatory authority to require every company engaged in the transportation of hazardous materials and dangerous goods by road, rail, air, and water to appoint a certified professional to be responsible for regulatory compliance.

On March 23, 2022, the U.S. Department of Transportation's Office of Inspector General issued a report entitled, ***"PHMSA Can Enhance Its Hazardous Material Fitness Reviews by Meeting Its Application Processing Goal and Addressing Oversight Gaps."***

This report states, ***"According to data from the Pipeline and Hazardous Materials Safety Administration (PHMSA), more than 3.3 billion tons of hazardous materials (hazmat) are transported within the United States each year. As PHMSA is responsible for evaluating the fitness of companies that transport hazmat, we initiated this audit with the following objective: to assess PHMSA's implementation of Federal requirements for conducting fitness reviews of applicants seeking hazmat approvals or special permits. Specifically, we assessed (1) PHMSA's three-tier process for reviewing applicants' fitness and (2) internal controls the Agency employed to conduct those reviews and communicate the results, as required."***

Improving the evaluation and fitness of companies that transport hazmat, being the core mission of PHMSA, ***should also include who at these companies is responsible for regulatory compliance***.

At a minimum, the following certified professionals should be recognized by DOT/PHMSA as serving in the best interest of regulatory compliance and public health and safety. This recommendation is fully compliant with ***Office of Management and Budget (OMB), Circular A–119,*** as these credentials are directly related to the mission and purpose of DOT/PHMSA, are widely recognized in the transportation community, and are available throughout the United States and worldwide.

IHMM's Comments on the Proposed Rule

I. Introduction and Interest of the Commenter

The **Institute of Hazardous Materials Management (IHMM)** respectfully submits these comments in response to the Notice of Proposed Rulemaking ("NPRM") issued by the **Pipeline and Hazardous Materials Safety Administration (PHMSA)** concerning HM–215R.

IHMM is a globally recognized certifying body representing over 9,000 credentialed professionals across all 50 states and 85 countries, including holders of the:

- Certified Hazardous Materials Manager (CHMM)
- Certified Dangerous Goods Professional (CDGP)
- Certified Hazardous Materials Practitioner (CHMP)

IHMM's certificants are directly responsible for ensuring compliance with the Hazardous Materials Regulations (HMR), international dangerous goods codes, and enterprise-level environmental, health, and safety (EHS) systems.

II. Executive Summary of Comments

IHMM **strongly supports** PHMSA's continued statutory mandate under 49 U.S.C. § 5120 to harmonize domestic hazardous materials transportation regulations with international standards.

The NPRM appropriately:

- Advances global regulatory alignment
- Incorporates scientific and incident-based hazard updates
- Reduces unnecessary administrative burden where safety permits

However, IHMM respectfully submits that PHMSA should:

1. **Formally recognize the role of certified hazardous materials professionals** (CHMM, CDGP, CHMP) in ensuring regulatory compliance and transportation safety;
2. **Incorporate competency-based compliance frameworks** into regulatory guidance and training expectations;
3. **Clarify implementation expectations** for complex changes (e.g., battery regulations, reclassifications); and
4. **Leverage the certified workforce** to enhance enforcement, compliance assurance, and risk mitigation.

III. Legal and Regulatory Framework

The NPRM is grounded in PHMSA's obligation to ensure that U.S. regulations remain consistent with international standards unless such standards are unsafe or unnecessary.
Consistent with this mandate, PHMSA proposes to amend the HMR to incorporate:

- Updates to hazardous materials descriptions and proper shipping names
- Hazard classifications and packing groups
- Packaging authorizations and modal limitations
- International codes including UN Model Regulations, ICAO Technical Instructions, IMDG Code, and ADR
- 49 CFR Parts 171, 172, 173, 175, 176, 178, and 180

IHMM agrees that these updates are both legally required and operationally necessary to maintain global supply chain interoperability. IHMM further points out that these same international standards serve as the basis of IHMM's Certified Dangerous Goods Professional [CDGP] credential > https://ihmm.org/cdgp-study-guides/

IV. Summary of Key Proposed Amendments

A. Hazardous Materials Table (HMT) Revisions

The NPRM proposes significant amendments to 49 CFR § 172.101, including:

- New and revised proper shipping names (PSNs)
- Hazard class and packing group updates
- Special provisions and packaging changes

IHMM Position:

IHMM supports these updates but emphasizes the need for **clear transition guidance and training support**, given the HMT's central role in compliance.

B. Sodium-Ion Battery Regulations

PHMSA proposes:

- New HMT entries
- New definitions in §171.8
- Regulatory treatment aligned with lithium-ion batteries

IHMM Position:

IHMM supports proactive regulation of emerging technologies and recommends:

- Publication of interpretive guidance
- Engagement with certified professionals to develop best practices

C. State-of-Charge Requirements for Batteries (Air Transport)

The NPRM expands state-of-charge (SOC) limitations.

IHMM Position:

IHMM supports these safety-driven provisions but notes that:

- Compliance will require **technical expertise and training upgrades**
- Misapplication poses a **significant enforcement risk**

D. Tetramethylammonium Hydroxide (TMAH) Reclassification

The NPRM:

- Adds toxicity hazards
- Revises classifications and packaging requirements

IHMM Position:
IHMM strongly supports science-based hazard reclassification and recommends:

- Alignment with OSHA hazard communication requirements > https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200
- Clear crosswalks for SDS updates

E. Limited Quantity Expansion for Division 2.2 Gases
PHMSA proposes expanded limited quantity allowances for certain inert gases.

IHMM Position:
IHMM supports this risk-based regulatory relief as consistent with performance-based regulation.

F. Organic Peroxides Table Updates
The NPRM:

- Adds new formulations
- Removes prior approval requirements for certain materials

IHMM Position:
IHMM supports a reduced administrative burden where safety is maintained.

G. Fire Suppressant Dispersing Devices
PHMSA proposes:

- New UN entries (UN0514, UN3559)
- Approval requirements prior to transport

IHMM Position:
IHMM supports appropriate oversight of emerging technologies.

H. International Harmonization Enhancements
The NPRM strengthens recognition of international regulatory systems.

IHMM Position:
IHMM strongly supports harmonization as essential for:

- Trade efficiency
- Compliance consistency
- Safety equivalence

V. Credential-Based Workforce: A Critical Regulatory Asset

A. The Role of Certified Professionals

The HMR framework is fundamentally dependent on **competent human performance** in:

- Classification
- Packaging
- Marking, labeling, and documentation
- Modal compliance

IHMM-certified professionals (CHMM, CDGP, CHMP) are uniquely qualified through:

- Accredited certification programs
- Job Task Analyses (JTAs) aligned to regulatory competencies
- Continuing professional development requirements

B. Recommendation: Formal Recognition by PHMSA

IHMM respectfully recommends that PHMSA:

1. **Recognize certified professionals as a best practice standard** in regulatory preambles, guidance, and outreach;
2. **Encourage the use of certified personnel** for:
    - Hazard classification determinations
    - Dangerous goods transportation decisions
    - Compliance program management
3. **Incorporate credential recognition into enforcement discretion frameworks**, where appropriate, and pursuant to OMB Circular A-119 guidance.

C. Regulatory Rationale

Recognition of certified professionals would:

- Enhance compliance quality and consistency
- Reduce incident rates and enforcement actions
- Align with federal reliance on credentialed expertise
- Support PHMSA's mandate to maintain safety while reducing regulatory burden

VI. Credential-Specific Impact Analysis

Credential-Specific Impact Matrix

Topic	CHMM	CHMP	CDGP
Overall compliance significance	**High. CHMMs overseeing enterprise hazardous materials compliance will**	**High. CHMPs handling practical implementation will**	**Very High. CDGPs are most directly affected because this rule is**

Topic	CHMM	CHMP	CDGP
	need to revise transportation governance, classifications, and internal controls.	likely manage day-to-day procedural changes.	centered on dangerous goods harmonization across modes and international codes.
Hazardous Materials Table revisions	High. Corporate programs, audits, and management systems will need updated shipping descriptions, hazard classes, packing groups, and special provisions.	High. Shipping staff instructions, package selection, and documentation workflows will need revision.	Very High. Core dangerous goods classification work changes directly with new and revised HMT entries.
Sodium-ion battery regulation	Moderate to High. Relevant where organizations manufacture, import, store, or ship emerging battery systems.	High. Procedures for packaging, marks, training, and acceptance will need updating.	Very High. New sodium-ion entries and rules mirror lithium battery transport and will be central to DG practice.
Lithium/sodium battery air transport state-of-charge rules	High for organizations with air shipments or battery-powered products.	High. Packing and pre-shipment verification processes will change.	Very High. Air-mode acceptance and compliance review will become more technical and more consequential.
Tetramethylammonium hydroxide (TMAH) reclassification	High. CHMMs responsible for chemical hazard governance and transport classification will need to reassess affected inventories and SDS transport sections.	High. Operational controls, labeling, packaging selection, and shipping papers will need revision.	High. CDGPs will need to apply the new toxic/corrosive framework and associated special provisions accurately.
Fire suppressant dispersing devices	Moderate. More relevant to manufacturers, importers, and specialized users.	Moderate to High where these devices are handled in operations.	High. New entries and approval-linked transport conditions will be important for DG specialists.
Limited quantity relief for certain Division 2.2 gases	Moderate. May reduce regulatory burden and shipping costs in some product lines.	High. CHMPs may implement simpler packaging and shipping workflows for eligible shipments.	High. CDGPs will need to determine eligibility and mode limits, especially because the relief excludes air transport.
Organic peroxide table amendments	Moderate. Important where chemical manufacturing or specialty formulation is	Moderate to High. Could reduce the need for prior approvals in	High. Packaging and classification authorization details are

Topic	CHMM	CHMP	CDGP
	involved.	some cases.	core DG functions.
International harmonization value	High. CHMMs benefit from reduced friction in multinational compliance systems and supply chains.	High. Easier operational alignment across domestic and export shipments.	Very High. Harmonization with ICAO, IMDG, ADR, and UN standards is central to CDGP work.
Training implications	High. Management-level compliance training, internal policy revisions, and audit criteria must be updated.	Very High. Front-line shipper and packer training will need prompt revision.	Very High. Recurrent DG training content will need substantive updating across air, vessel, and multimodal practice.
Documentation/SOP revisions	High. Enterprise SOPs, shipping manuals, and compliance matrices will need revision.	Very High. Work instructions, package prep sheets, and acceptance checklists will change.	Very High. Shipping descriptions, special provisions, and mode-specific checks will require detailed revision.
Strategic business effect	High. CHMMs may use the rule to reduce compliance friction and improve export readiness.	Moderate to High. Operational efficiency may improve if procedures are updated well.	High. CDGPs may see expanded demand for classification, training, auditing, and international shipping support.

Summary Matrix

Regulatory Domain	CHMM	CHMP	CDGP
Regulatory Governance	Very High	Moderate	High
HMT Changes	High	Very High	Very High
Battery Regulations	High	High	Very High
Chemical Reclassification	High	High	High
Limited Quantity Relief	Moderate	High	High
Organic Peroxides	Moderate	High	High
Fire Suppressant Devices	Moderate	Moderate–High	High
International Harmonization	Very High	High	Very High
Training Requirements	High	Very High	Very High
Enforcement Exposure	High	High	Very High

Credential-Level Legal Implications

CHMM:
Responsible for enterprise-wide compliance systems and regulatory integration.
CHMP:
Responsible for operational execution and procedural compliance.
CDGP:
Primary technical authority for dangerous goods classification and transport.

VII. Implementation Considerations

IHMM recommends that PHMSA:

1. Provide **robust transition timelines** for HMT and classification changes
2. Issue **interpretive guidance and FAQs** for complex provisions
3. Collaborate with credentialing bodies to **disseminate training and compliance resources**
4. Consider **phased enforcement approaches** for novel regulatory areas (e.g., sodium-ion batteries)
5. To operationalize the above recommendation and enhance regulatory clarity, IHMM proposes the following **targeted edits to the HMR**:

A. Addition to § 171.1 (General Requirements)

Proposed New Paragraph (g):
"(g) Use of Qualified Personnel. Each person who offers or transports hazardous materials in commerce is encouraged to ensure that hazardous materials classification, packaging selection, hazard communication, and transportation compliance determinations are performed or reviewed by individuals who are qualified through training, experience, or professional certification in hazardous materials management or dangerous goods transportation."

Rationale:
Establishes a performance-based expectation of competency without mandating specific credentials.

B. Addition to § 172.704 (Training Requirements)

Proposed Amendment to § 172.704(a):
Add new subsection (a)(6):
"(6) Personnel performing functions related to classification, packaging selection, or modal transport compliance should demonstrate competency commensurate with the complexity of

the materials handled, which may include professional certification in hazardous materials management or dangerous goods transportation."

Rationale:
Aligns training requirements with competency-based standards and reinforces workforce capability.

C. Addition to § 172.101 (HMT – Applicability Note)

Proposed Note:
"Note: Accurate use of the Hazardous Materials Table requires technical knowledge of hazard classification principles and applicable international standards. PHMSA recommends that such determinations be conducted or verified by qualified personnel."

Rationale:
Addresses the high error risk associated with HMT interpretation.

D. Preamble Language Recommendation (Non-Codified)

IHMM recommends inclusion of the following statement in the preamble to the final rule:
"PHMSA recognizes the important role of trained and professionally credentialed hazardous materials and dangerous goods professionals in ensuring compliance with the HMR and international standards. The use of qualified personnel contributes significantly to safe transportation outcomes and regulatory compliance."

Rationale:
Provides formal agency recognition without imposing regulatory burden.

E. Guidance Document Recommendation

IHMM further recommends PHMSA issue guidance stating:
"Use of accredited and certified hazardous materials professionals is a best practice for ensuring compliance with complex classification, packaging, and modal transport requirements."

VIII. Conclusion

IHMM strongly supports the HM–215R NPRM and commends PHMSA for advancing a comprehensive harmonization rule that reflects evolving international standards and scientific knowledge.
IHMM respectfully urges PHMSA to:

- Finalize the proposed amendments;
- Incorporate targeted clarifications as proposed herein; and
- Recognize the essential role of certified hazardous materials professionals in achieving regulatory objectives.

Such actions will strengthen compliance, enhance safety, and ensure effective implementation of the HMR.

IHMM stands ready to assist PHMSA through technical expertise, training support, and stakeholder engagement.

IHMM Professional Credentials

The **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. We illustrate the hazardous materials compliance under 49 CFR and risk management knowledge, skills, and abilities of the CHMM by including the CHMM blueprint in **Attachment One**.

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 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.

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 Two**.

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.

The **Certified Dangerous Goods Professional® [CDGP®]** is a professional with a credential that has an unbiased verification that a company employs a global multi-modal hazmat transportation expert, as the CDGP recognizes expertise in dealing with the safe, secure, and compliant multi-modal transportation of dangerous goods internationally under the model regulations published by the United Nations, International Maritime Organization, International Civil Aviation Organization, and International Air Transport Association.

The CDGP 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, the model regulations published by the United Nations, International Maritime Organization, International Civil Aviation Organization, and International Air Transport Association, 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. **See Attachment Three.**

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, CHMP, and CDGP holders recertify their competency to continue to hold the credential every 5 years based on the contents of the certification blueprint. This ensures DOT/PHMSA 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. We strongly recommend that the DOT/PHMSA rely on professional credentials that require recertification based on the certification blueprint at least every 5 years.

Training. IHMM's commitment to the excellence of its professional credentials, and throughout DOT/PHMSA'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 an IHMM Foundation 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 DOT/PHMSA-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 DOT/PHMSA in every way possible in the evolution of hazardous materials and dangerous goods transportation credentials that help create safer workers, safer communities, and safer hazardous materials and dangerous goods transportation 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 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.	

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

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Attachment Two

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.

Attachment Three

Certified Dangerous Goods Professional® [CDGP®]

Certification Blueprint

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

CERTIFIED DANGEROUS GOODS PROFESSIONAL (CDGP) EXAM SPECIFICATIONS

Effective 2026

Certified Dangerous Goods Professionals (CDGP) are professionals who have the knowledge, skills, and abilities appropriate for dealing with the transport of dangerous goods that have special packaging, hazard communication, and transport requirements. The CDGP is an expert in understanding and managing potential hazards and the complexity of the regulations that apply to them, and can accurately analyze the requirements for dangerous goods transport through his or her use of regulatory reference sources.

The CDGP exam is based on the UN Recommendations on the Transport of Dangerous Goods – Model Regulations, International Civil Aviation Organization's Technical Instructions (ICAO TI), International Maritime Dangerous Goods Code (IMDG Code), and International Air Transport Association's Dangerous Goods Regulations (IATA DGR), which may be used in conjunction with or in lieu of the ICAO TI.

A CDGP has the knowledge, skills, and abilities appropriate for dealing with the transportation and security of dangerous goods following specific global modal regulations. The references are under specific global modal regulations. These references are the only references allowed during the open-book examination.

1. UN Recommendations on the Transport of Dangerous Goods – Model Regulation, 24th Revision, Effective January 1, 2025 (Updated Every Two Years)
2. European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) TBD 2025 Edition – Authorized January 1, 2025 (Updated Every Two Years)
3. International Civil Aviation Organization's Technical Instructions (ICAO TI), 2025/2026 Edition, Effective January 1, 2025
4. International Maritime Organization's Dangerous Goods Code (IMDG Code), Amendment 42-24 Authorized January 1, 2025 (Updated Every Two Years)
5. International Air Transport Association's Dangerous Goods Regulations (IATA DGR), 66th Edition Authorized January 1, 2025 (Updated Every Year)

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Certified Dangerous Goods Professional (CDGP) Exam Blueprint

The CDGP exam is designed to test the knowledge and critical thinking skills an individual needs to know and apply in this discipline. Test takers will need to demonstrate the knowledge and analyze real-life scenarios identified in the blueprint in real time. The test takers will need to demonstrate competence; this is a multi-faceted exam construct that includes cognitive level knowledge, declarative (recall and remember knowledge), and application (requiring a candidate to apply knowledge). The CDGP candidate must have five [5] years of experience to meet the eligibility requirement to take the exam.

The CDGP Exam Blueprint consists of six domains. A domain is a major area of responsibility that defines the role of a Certified Dangerous Goods Professional (CDGP). A competency/task is an activity performed within a performance domain.

DOMAINS AND COMPETENCIES/TASKS		Percent of Items
1	**Identify and describe international regulatory standards relevant to the transport of dangerous goods**	**25%**
1.1	**Knowledge of International Regulatory References**	**9%**
1.1.1	Application: Given a scenario, apply Recommendations on the Transport of Dangerous Goods – Model Regulations, United Nations Committee of Experts (UN COE), as appropriate in international transportation.	
1.1.2	Application: Given a scenario, apply the International Civil Aviation Organization (ICAO)Technical Instructions for the Safe Transport of Dangerous Goods and the International Air Transport Association (IATA) Dangerous Goods Regulations to the extent that those relate to international standards for moving goods.	
1.1.3	Application: Given a scenario, apply the International Maritime Dangerous Goods Code as appropriate for maritime transportation.	
1.1.4	Application: Given a scenario, apply the Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR).	
1.2	**Knowledge of the Training and Certifications Required by International Regulations**	**10%**
1.2.1	Declarative: Describe the training requirements required by international regulations.	
1.2.2	Declarative: Describe function-specific training as appropriate.	
1.2.3	Declarative: Describe emergency response job functions.	
1.2.4	Declarative: Describe safety and security-related job functions.	
1.2.5	Declarative: Describe retention requirements and required elements of training records.	
1.3	**Working Knowledge of Dangerous Goods Terminology and Definitions**	**6%**
1.3.1	Declarative: Understands key terms and definitions used in the regulations.	
1.3.2	Declarative: Use terminology relevant to dangerous goods transportation.	
1.3.3	Application: Given a scenario, differentiate between terms and definitions (e.g., Hazard Class, Divisions, Packing Groups) in accordance with requirements.	
2	**Management of Transportation**	**24%**

Effective 2026, all CDGP exam administrations will be based on this CDGP Exam Blueprint

2.1	Application: Given a number of inputs, classify dangerous goods for transportation and select the appropriate basic description (e.g., ID number, shipping name, hazard class, division, packing group, etc.)	
2.2	Application: Given a scenario, identify appropriate packaging, testing, and marking for packaging users, including closure instructions.	
2.3	Application: Given a scenario, select approved packaging for classified dangerous goods.	
2.4	Application: Given a scenario, identify the required hazard warning labels for a dangerous goods package.	
2.5	Application: Given a scenario, identify the required marks and markings on packages of dangerous goods.	
2.6	Application: Given a scenario, identify the required placards and/or panels for packages of dangerous goods or cargo transport units carrying dangerous goods.	
2.7	Application: Given a scenario, identify the required information on a properly prepared dangerous goods declaration.	
3	**Handling of Cargo**	**15%**
3.1	Application: Given a scenario, identify the required cargo-handling labels and other required marks for a dangerous goods package or cargo transport unit.	
3.2	Application: Given a scenario, identify the requirements for loading and unloading of dangerous goods into or out of cargo transport units.	
3.3	Application: Given a scenario, apply the appropriate segregation requirements for different packages of dangerous goods.	
3.4	Application: Given a scenario, identify specific handling requirements for a particular mode of transportation for a dangerous goods shipment.	
3.5	Application: Given a scenario, identify the inspection and acceptance criteria for a dangerous goods shipment.	
4	**Management of Documentation**	**15%**
4.1	Declarative: Identify the testing requirements for bulk and non-bulk packagings.	
4.2	Application: Given a scenario, identify the required elements for a dangerous goods declaration.	
4.3	Application: Given a scenario, identify the approvals process for permits, authorizations, or agreements, and other certificates.	
4.4	Application: Given a scenario, identify other required documents that may be required to expedite a dangerous goods shipment.	
5	**Emergency Management**	**11%**
5.1	Application: Given a scenario, plan for and implement key emergency planning concepts.	
5.2	Declarative: Identify important sources of emergency response information.	
5.3	Application: Given a scenario, identify the reporting and notification requirements for an incident or accident involving dangerous goods. (What is required? When is it required? To whom must it be reported?)	
5.4	Application: Given a scenario, identify the required repackaging and/or salvage packaging, and the limitations and use of each.	
6	**Security**	**10%**

6.1	Application: Given a scenario, identify the elements of a site security plan, when they are needed, and the applicable training requirements.	
6.2	Application: Given a scenario, identify key considerations within each required element of the security plan.	
6.3	Application: Given a scenario, implement and employ the elements of security awareness, including the nature, recognition, and methods for addressing security risks.	
6.4	Declarative: Identify key issues when developing security procedures for personnel.	
6.5	Declarative: Identify key issues and requirements for reporting and dealing with security threats, breaches of security, or security-related incidents.	

For more information about the Certified Dangerous Goods Professional certification program, including eligibility requirements and application procedures, see the IHMM Candidate Handbook available at www.ihmm.org.