May 5, 2025

Daniel Cohen
U.S. Department of Transportation
Office of the General Counsel
1200 New Jersey Avenue SE
Washington, DC 20590-0001

Concerning: Docket No. DOT-OST-2025-0026

Submitted at Regulations. Gov

Dear Mr. Cohen,

The Institute of Hazardous Materials Management [IHMM] is pleased to submit comments concerning the docket cited above regarding the U.S. Department of Transportation's ***Request for Information, Ensuring Lawful Regulation; Reducing Regulation and Controlling Regulatory Costs***.

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 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 to CESB Accreditation Guidelines, including a robust review program of compliance with those standards.

IHMM draws attention to these three [3] professional credentials consistent with OMB Circular A-119, "Incorporation by Reference Discussion under 1 CFR Part 51"

> ***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 request for information.

Why is regulation of the transportation of dangerous goods and hazardous materials important?

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."***

The DOT Request for Information

Federal Register Citation

- **Federal Register**: Vol. 90, No. 63, Thursday, April 3, 2025
- **Document Number**: 2025–05557
- **Docket Number**: DOT–OST–2025–0026
- **Regulatory Title**: *Ensuring Lawful Regulation; Reducing Regulation and Controlling Regulatory Costs*
- **Legal Authority**: In response to Executive Orders:
    - **E.O. 14219** – *Ensuring Lawful Governance and Implementation of the President's 'Department of Government Efficiency' Deregulatory Agenda* (90 FR 10583)
    - **E.O. 14192** – *Unleashing Prosperity through Deregulation* (90 FR 9065)
    - Additional relevant Executive Orders: **E.O. 14151**, **E.O. 14154**, **E.O. 14168**, and **E.O. 14213**

Purpose of the RFI

The Department of Transportation (DOT) is seeking public comment to:

- Identify existing **regulations, guidance, paperwork, and reporting requirements** that may be:
    - Unlawful, outdated, burdensome, or economically unjustified;
    - Inconsistent with statutory authority or constitutional principles;
    - Impeding innovation, infrastructure, economic growth, or national interests;
- Fulfill the deregulatory mandates of Executive Orders by **reviewing and potentially repealing or modifying regulations**.

Key Requirements from Executive Orders

E.O. 14219 directs agencies to target:

1. **Unconstitutional regulations**
2. **Unlawful delegations of power**
3. **Regulations not based on best readings of statutory authority**
4. **Rules addressing major socio-economic issues without clear authorization**
5. **High-cost regulations with insufficient benefits**
6. **Rules that harm national interests**
7. **Burden-heavy rules on small businesses and entrepreneurs**

E.O. 14192 mandates:

- **"10-for-1" Rule**: Propose 10 existing rules for repeal with every new rule.
- **Net Deregulatory Cost**: Total cost of new regulations must be significantly less than zero for FY 2025.
- **Annual Cost Caps**: DOT must operate within OMB-assigned regulatory cost limits from FY 2026 onward.

Request for Comments

DOT invites input from:

- State, local, and tribal governments
- Small businesses and entrepreneurs
- Transportation operators, manufacturers, consumers, NGOs

Commenters are asked to:

- Identify problematic rules or guidance by citation;
- Provide economic data, cost-benefit analysis, or legal justification for repeal/modification;
- Suggest alternatives that maintain safety and legal compliance with less burden.

IHMM Comments in Response to the RFI

1. These comments reflect the urgent need for regulatory modernization, particularly in the wake of the Norfolk Southern train derailment in East Palestine, Ohio. Drawing from the findings of the National Transportation Safety Board (NTSB) investigation into that incident, this response offers specific recommendations for strengthening safety, communication, and coordination—particularly in the realm of hazardous materials (hazmat) transport.

A major issue highlighted by the NTSB's investigation was the lack of accessible, consistent, and real-time information regarding hazardous materials being transported. During the East Palestine incident, emergency responders were forced to make decisions with limited or delayed information, raising risks to personnel and the surrounding community. Although tools like the AskRail app exist to provide trained consistent data, their implementation is uneven, and access is often restricted to select stakeholders. The DOT should take steps to streamline and expand the utility of these applications by mandating open access for qualified first responders across local, regional, and tribal jurisdictions, and by enhancing data formatting to support real-time updates. Furthermore, integrating these apps with 911 systems, emergency operation centers, and dispatch networks would ensure immediate visibility for emergency personnel. A

centralized dashboard aggregating data from AskRail with real-time weather, topography, and evacuation overlays could significantly enhance situational awareness.

While AskRail is rail-specific, similar applications and platforms are emerging across other modes of transportation, and DOT should support interoperability among them. For example, the U.S. Coast Guard's "Homeport" portal offers maritime situational awareness, incident reporting, and vessel traffic data, which could be integrated into a broader emergency coordination platform. On the trucking side, the Federal Motor Carrier Safety Administration (FMCSA) supports the "Safety Measurement System" (SMS) and the "Hazardous Materials Information System" (HMIS), both of which contain useful information about carriers and cargo but are not widely accessible in real-time or optimized for local emergency use. Air cargo data, regulated through the FAA and PHMSA, is also siloed. The DOT should explore a unified, cross-modal platform or interface that incorporates hazardous material data from rail, road, sea, and air in a secure, mobile-friendly environment. This system should be built on modern digital infrastructure with role-based access to ensure that responders, planners, and public officials can act swiftly in high-risk scenarios.

Equally important is the need for standardized and enhanced training for emergency responders nationwide. One of the recurring themes from the Norfolk Southern derailment was the disparity in preparedness across different jurisdictions. Smaller municipalities and volunteer departments often lack both the training and resources to effectively handle hazardous material incidents. A nationally coordinated curriculum—delivered through online modules, regional in-person workshops, and immersive simulations—would close these gaps. DOT should partner with FEMA, PHMSA, and the National Fire Academy to produce scalable, cost-effective training that local departments can access at minimal or no cost. Incorporating scenario-based simulations and VR training would offer high-quality experiential learning without requiring physical hazardous materials for drills. Additionally, a "train-the-trainer" model would empower regional instructors to reinforce and disseminate best practices, ensuring continuity and compliance over time.

Another issue exposed during the East Palestine response was the breakdown in communication between municipal agencies and the rail carrier. The lack of interoperable communication platforms delayed response coordination, leading to confusion and duplication of efforts. DOT should provide clear guidance on implementing interoperable communication systems that allow for seamless collaboration between railroad companies, first responders, law enforcement, and environmental agencies. Investment in joint emergency communication hubs, either virtual or physical, would greatly increase preparedness. DOT can further enhance local response by requiring freight carriers transporting hazardous materials to participate in regional emergency

planning sessions and contribute to coordinated exercises with municipal and state emergency services.

At the administrative level, there is an opportunity to reduce burdens by digitizing and consolidating current paperwork requirements. Emergency personnel and regulators alike are overwhelmed by redundant documentation protocols that add no tangible safety benefit. DOT could significantly increase efficiency by consolidating hazardous materials reporting into a centralized, secure electronic platform. Rather than requiring multiple submissions to different agencies, a single point of entry could distribute data to all relevant parties—including PHMSA, the EPA, and local emergency planning committees. Train consist information, currently still reliant on printed documentation, should be transitioned to encrypted digital manifests accessible via handheld devices, with access controls in place. Regulations mandating outdated reporting tools—such as faxes or duplicative paper forms—should be reviewed and, where feasible, unsettled in favor of secure digital systems. These updates would reduce burdens for both public-sector agencies and private transportation companies while improving the accuracy and timeliness of critical information.

Importantly, these recommendations align with the spirit and letter of recent executive orders calling for a more cost-effective, transparent, and responsive regulatory framework. They also reinforce DOT's statutory mandate to ensure safety while minimizing unnecessary regulatory burdens. By investing in smart modernization, DOT has the opportunity to reduce long-term costs, promote efficient inter-agency collaboration, and restore public confidence in the safety of our national transportation system.

The Norfolk Southern derailment is a painful reminder that our transportation safety infrastructure is only as strong as its weakest link. The lessons learned must be used to initiate systemic improvements in information sharing, responder training, and cross-agency coordination. By supporting open access to data platforms like AskRail, expanding intermodal information tools, standardizing hazmat response training, modernizing municipal emergency communications, and digitizing redundant paperwork processes, the DOT can achieve both burden reduction and stronger public safety outcomes. These actions represent a practical and necessary path forward in aligning with the national interest and the expectations of the American public.

2. Better align DOT rules with the international rules in areas of environmentally hazardous materials (Class 9) where exemptions exist internationally but not in the US and combustible materials. A lack of alignment creates an unnecessary regulatory burden for international industries.

49 CFR is not published yearly as it should be. It's a year behind and sometimes close to 2 years behind international standards.

3. There are surveys requested from several regulatory entities that have to be answered on an annual basis. TRI, Tier II, and RMP all stem from EPA and can be used to estimate the impacts of some material transport. If CFATS is re-implemented by DHS, that is another resource. Hazardous waste reporting is another resource. The cost of transport generally is something that is tracked by the supply chain in almost any company. Any of those resources could be helpful and exist already. Acknowledgment between regulatory entities should be emphasized.

4. Sulfuric acid and several others have Packing Groups that do not match current GHS classifications i.e. Sulfuric acid is PG II in DOT and Category 1 in GHS.

5. Adopt the IAEA placard size, specifications, and allowance of the ID number on the class 7 placard. This will minimize confusion when ordering placards and align with international shipments. Also will be a cost savings for shippers to use one placard with the ID number vice two communications a placard and orange panel marking.

6. Running SVA-style security plans for tank cars of flammable liquids is over the top. This classification of material could benefit from a lower tier of security plan requirements.

There are now 75 ways to ship a lithium battery-which seems excessively complicated.

Adopt the IAEA fissile material definition to call any shipment with less than 0.25 grams of fissile nuclides as "non-fissile" ... currently per 49 CFR 173.403 and 173.453, if a class 7 shipment has less than 0.25 grams, then any shipment into or out of the USA must be described as "fissile excepted" per 49 CFR 171.23(b)(11)(ix). This is very confusing for international shippers to know the USA fissile material definition and how 49 CFR 173.403 has left out the de minimis level of 0.25 grams.

7. Security plan programming is outdated and unclear as DOT/PHMSA/FMCSA all used a DHS resource. This reference is no longer online as indicated by links within USDOT. These rules need revisiting (requirements, methods, training).

8. Consolidate Rulemaking Procedures Across Agencies

Multiple parts, such as 49 CFR Part 106 (PHMSA) and Part 553 (NHTSA), outline similar rulemaking procedures. Standardizing these processes into a unified framework can eliminate redundancy and streamline regulatory development.

9. Digitize and Centralize Regulatory Information

Creating a centralized digital platform for all regulatory documents, guidance, and updates can improve accessibility, ensuring stakeholders have timely and easy access to necessary information.

10. Provide Comprehensive Compliance Assistance

Developing detailed guidance materials, FAQs, and training programs can assist stakeholders in understanding and adhering to regulations, thereby minimizing inadvertent non-compliance and associated penalties.

11. Simplify Hazardous Materials Regulations

Issue: Parts 100–185 cover hazardous materials with complex and sometimes overlapping requirements.

Recommendation: Conduct a comprehensive review to identify and merge overlapping provisions, and eliminate outdated requirements to simplify compliance for stakeholders.

12. Streamline Reporting Requirements

Issue: Various parts impose reporting obligations that can be burdensome and duplicative.

Recommendation: Evaluate reporting requirements across Title 49 to identify opportunities for consolidation, digital submission, and elimination of unnecessary reports.

13. Consolidate Training Requirements

Issue: Training mandates are dispersed across multiple parts, leading to potential redundancy.

Recommendation: Centralize training requirements into a single part or subpart, clarifying obligations and reducing duplication.

14. Facilitate Stakeholder Engagement

Issue: Limited mechanisms for stakeholder input can impede responsive regulation.

Recommendation: Establish regular forums and feedback channels for stakeholders to contribute to regulatory development and revision processes.

15. Promote Interagency Collaboration

Encouraging coordination among different transportation agencies can harmonize regulations, reducing inconsistencies and simplifying compliance for entities operating across multiple jurisdictions.

16. Many years ago when the DOT harmonized with international standards to remove the packing group (PG) from self-reactive substances (e.g. UN3230), the associated packaging exceptions (e.g. 173.151) were not updated to specify limited quantity amounts for materials without packing group references. While there is no limited quantity amount for these materials by international air (ICAO/IATA), other international & domestic standards (IMDG, ADR) have a limited quantity amount of 500 g. Since 49 CFR 173.151 only reference limited quantity amounts concerning packing groups, it is confusing for the regulated community to know the limited quantity amount for domestic transport.

17. §173.124(a)(2)(iii)(D) specifies the process for approval by the Associate Administrator for self-reactive materials not identified by name in §173.224(b). To conduct the assessment and issue the approval, (1) All relevant data concerning physical state, temperature controls, and results **or** (2) an approval issue for the self-reactive material by the competent authority of a foreign government. The regulation appears to allow for approval from the competent authority of a foreign government to be sufficient for PHMSA to issue an approval, but in practice, they only allow for option (1) providing all data and test results. For international companies, many products are formulated and tested outside of the US with approval issued by a foreign competent authority. Requiring submittal of all data and results instead of accepting the foreign competent authority approval creates a significant delay in the approval process and increases costs because of language translations for reports. Changing their process to allow option (2) for issuing an approval would be a significant reduction in regulatory burden.

18. An important aspect of this pursuit of efficiency and elimination of redundancy is the application of a unified chemical classification system, especially between the DOT and NFPA. In almost all cases, community fire organizations are the first responders to derailments, tanker crashes, and facility chemical releases. The DOT chemical class ranking is one language and the NFPA 704 hazard ranking is completely different. This forces emergency responders to know "multiple languages" when they're in the midst of a crisis situation. I agree with the consolidation of data into one effective electronic database for responders to use. I also agree with the unification (or creation?) of one chemical class ranking system to optimize decision-making and risk management. If that one system already exists internationally, the national system would benefit by having a direct correlation. This would optimize emergency responses by professionals no matter where they are across the globe.

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 also 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 also 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 also 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 and 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 a Foundation, the 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 U.S. DOT-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 U.S. DOT 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 October 2018

A Certified Dangerous Goods Professional® (CDGP®) is a professional involved in the transport of goods and materials that have been categorized as regulated materials and have special packaging, communication, and transport requirements. The CDGP is a person who is an expert in appreciating the potential hazards and the complexity of the regulations that apply to them, and who can accurately analyze the requirements for dangerous goods transport through his or her use of regulatory reference sources. A CDGP is competent in:

- International regulatory requirements and standards relevant to the transport of dangerous goods
- Understanding the training requirements, the terms, phrases and definitions for the transportation of dangerous goods
- Interrelationships between international regulatory requirements, standards and associated updates
- Understanding special permits, competent authority approvals, and/or agreements and certificates
- The identification, classification, packaging, marking, labeling/placarding, documenting, handling/loading/unloading, stowage, segregation, security and emergency response for dangerous goods
- The use of special provisions and exceptions
- Emergency Planning, Emergency Information, Incident reporting: What is required, when it is required and to whom it must be reported, the use of salvage packaging, repackaging and prohibitions on salvage packaging
- When site specific security plans are needed, and their training requirements, key issues to consider when developing security procedures for personnel, and key issues to consider when developing security procedures for travel routes

A CDGP has the knowledge, skills and abilities appropriate for dealing with the transportation and security of dangerous goods in accordance with specific global modal regulations:

- UN Recommendations on the Transport of Dangerous Goods - Model Regulation, 20th Edition
- International Civil Aviation Organization's Technical Instructions (ICAO TI), 2017-2018 Edition
- International Maritime Organization's Dangerous Goods Code (IMDG Code), 2016-2018, 38th Edition

These three regulations of the editions noted or newer are permitted references for the open-book CDGP exam administration. In addition, the International Air Transport Association's Dangerous Goods Regulations (IATA DGR) are incorporated into the scope of subdomain 1.1 of the CDGP examination to the extent that the ICAO TI underlies the IATA DGR. The scope of the CDGP examination does not include those areas where the IATA DGR sets a more stringent standard than the ICAO TI.

- International Air Transport Association's Dangerous Goods Regulations (IATA DGR), 59th Edition or newer may be used in conjunction with or in lieu of the ICAO TI.

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Certified Dangerous Goods Professional (CDGP) Exam Blueprint

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	% of Items
1.0 Identify and describe international regulatory standards relevant to the transport of dangerous goods	**40%**
1.1 Knowledge of International Regulatory References	**7%**
1.1.1 Applies Recommendations on the Transport of Dangerous Goods – Model Regulations, United Nations Committee of Experts (UN COE) as appropriate in international transportation.	
1.1.2 Applies Technical Instructions for the Safe Transport of Dangerous Goods, International Civilian Aviation Organization (ICAO) Technical Instructions as applicable in international air transportation, and IATA to the extent that those relate to international standards for moving goods	
1.1.3 Applies International Maritime Dangerous Goods Code, International Maritime Organization (IMO) as appropriate for maritime transportation	
1.2 Knowledge of the Training and Certifications Required by International Regulations	**20%**
1.2.1 Complies with the training requirements required by international regulations	
1.2.2 Implementing function-specific requirements tasks as appropriate	
1.2.3 Implements emergency response job functions	
1.2.4 Performs safety and security related job functions	
1.2.5 Complies with retention requirements for training records	
1.3 Working Knowledge of Dangerous Goods Terminology and Definitions	**13%**
1.3.1 Employs key words used in the regulations	
1.3.2 Converses in the common terminologies relevant to dangerous goods transportation	
1.3.3 Utilizes the definitions specific or unique to the separate regulatory standards	
1.3.4 Applies dangerous goods definitions (e.g. Hazard Class, Divisions, Packing Groups) in accordance with requirements	
2.0 Management of Transportation	**22%**
2.1.1 Classifies dangerous goods for transportation and selects the proper shipping name	
2.1.2 Implements UN standard packaging, testing, marking and notifications to packaging users, and closure instructions	
2.1.3 Properly selects authorized packaging for a classified dangerous good	
2.1.4 Implements labeling requirements for dangerous goods packaging	
2.1.5 Implements marking requirements for packages	
2.1.6 Implements placarding requirements for dangerous goods	
2.1.7 Complies with documentation requirements for the transport of dangerous goods	

Effective October 2018, all CDGP exam administrations will be based on this CDGP Exam Blueprint

3.0 Handling of Cargo	**14%**
3.1.1 Complies with requirements and standards for markings on packages of dangerous goods	
3.1.2 Complies with standards and requirements for loading and unloading of dangerous goods	
3.1.3 Implements methods for proper segregation and securement of cargo in-transit	
3.1.4 Complies with the different modal handling requirements for the transportation of dangerous goods (i.e. air, water)	
3.1.5 Complies with the requirements and standards for inspection, acceptance, and reporting of dangerous goods	
4.0 Management of Documentation	**8%**
4.1.1 Realizes packaging testing and packaging closure documentation requirements	
4.1.2 Complies with requirements for preparing and maintaining transport documents	
4.1.3 Complies with approvals process for permits, authorizations or agreements and certificates	
5.0 Emergency Management	**9%**
5.1.1 Plans for and implements key emergency planning concepts	
5.1.2 Obtains important sources of emergency response information	
5.1.3 Fulfills requirements of incident reporting: What is required, when it is required and to whom it must be reported	
5.1.4 Differentiates between situations which require salvage packaging, repackaging and prohibitions of salvage packaging	
6.0 Security	**7%**
6.1.1 Execute site specific security plans are needed, and their training requirements	
6.1.2 Implement and employ the elements of security awareness, including the nature, recognition and methods for addressing security risks	
6.1.3 Considers key issues when developing security procedures for personnel	
6.1.4 Considers key issues and regulations when dealing with sensitive information security plans	

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.