July 13, 2023

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-2021-0092 / 2021-0092-0003

Submitted at Regulations. Gov

To Whom It May Concern,

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-2021-0092.

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 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 Section III of the proposed rule, "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 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 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 that 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 Hazardous Materials Society [HMS] https://hazmatsociety.org/ whose reason to exist is principally a focus on the education and training of IHMM's certificants.

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

If there are specific areas where 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, etc.), 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, etc.)	
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.