PEEB Certified Safety Specialist (CSS)

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1.1 Certified Safety Specialist (CSS) Domains

This exam covers the following competency domains.

1.1.1 Domain 01. Law and Ethics – 6%

Knowledge of:

1. Health & Safety legislation (precaution, penalties, international, national, industry & trade)
2. Privacy protection (property liability, product liability, privacy law, trade secrets etc.)
3. Duties at the workplace and (managers, supervisors, safety committee etc.)
4. PEEB Code of Ethics
5. Legal issues (common law, compensation law, due diligence, general duty clause, civil & criminal law etc.)
6. Consequences of professional errors and oversights
7. Relationship between labor and management (performance management)

Skills:

1. Interpret laws, regulations, business continuity/ organisational improvement audit, and consensus codes and standards
2. Apply concepts of PEEB Code of Ethics

1.1.2 Domain 02. Ergonomics and Hygiene – 9%

Knowledge of:

1. Role of an occupational hygienist & human factors
2. Occupational illness & disease (cancer, asthma, dermatitis,
3. Route of the entry (inhalation, absorption, ingestion, injection)
4. Hazards & control of associated with gases and Ventilation & indoor air quality
5. Physical & biological hazards & control (noise, ionizing & non-ionizing, vibration, stress, mould, influenza, viruses etc.)
6. Symptoms of musculoskeletal injuries and ergonomics (biomedical, physiological, anatomical etc.)
7. Ergonomics assessment tools (surveys, checklists, direct observation, interview etc.)
8. Basics epidemiology and toxicology (mutagens, teratogens etc. LD50)
9. The fundamentals of epidemiology and Measurement, monitoring, and control 10. Occupational exposure limits

Skills:

1. Applying principles and concepts of toxicology (dose-response, acute/chronic, latency, routes of entry)
2. Applying principles and concepts of epidemiology (study design, measures of disease, and statistics)
3. Assessing information source credibility
4. Communicating with affected parties

1.1.3 Domain 03. Safety Fundamentals – 13.6%

Knowledge of:

1. Fundamentals of safe use, material handling & storage, disposal, risk associated with chemicals, explosive, and radioactive material etc. (WHMIS/GHS)
2. Mobile equipment and vehicles safety (crane, forklifts, truck, vans, fleet safety etc.)
3. Hazard & controls with automated systems, equipment, and process (robotics, remote starts, computer controlled etc.)
4. Common workplace hazard (electrical, falls, confined space, lockout/ tag out, excavation, hot work, cold & heat stress, caught in & between, struck by, work tools safety (hand tools, ladders, grinder etc.)
5. Physical, chemical & biological hazard & control
6. Process safety management (pressure relief system, management of change etc.)
7. Personal protective equipment
8. Human performance and personal audit
9. Transportation safety principles
10. Hazardous materials management and handling of working equipment's
11. Common worksites issue (contractor, seasonal employee etc.) 12. Safeguarding machinery (point of operation, interlocks etc.)

Skills:

1. Calibrate, use, and maintain data logging, monitoring, and measurement equipment
2. Identify relevant labels, signs, and warnings
3. Ventilation, radiation, Noise, and vibration measurements
4. Thermal stress measurements, and troubleshooting control technology
5. Comparing air sampling and measurement data to recognized criteria 6. Reading and interpreting design drawings and specifications

1.1.4 Domain 04. Management Systems – 18%

Knowledge of:

1. The key element of the management system (plan, do, check, act)
2. How to develop, implement, evaluate etc. OH&S ISO 45001, QMS ISO 9001, EMS ISO 14001 3. Health and safety culture & consultation (benefits, barrier, improvement, measured etc.)
4. Integration of health and safety into organisational structure, culture & design etc.
5. Safety system for workers welfare and wellbeing.
6. Elements of business continuity & contingency plans and sustainability
7. Management function & understanding of quality management
8. How to measure, analyse, improve organisational culture, diverse organisational culture, and ethical business environment.
9. What is benchmark & performance and how to measure
10. Problem-solving process, decision making and conflict of management
11. Adult learning principles and Training need analysis
12. Budgeting, finance, and economic analysis techniques and principles
13. Workplace violence & harassment management (recognition & prevention)

Skills:

1. Analyse and/or interpret sampling data (e.g., exposure, release concentrations) 2. Apply management principles of authority, responsibility, and accountability
3. Compare management systems with benchmarks.
4. Evaluate and analyse survey data and Perform gap analyses
5. Demonstrate business need via financial calculations (e.g., ROI, engineering economy, financial engineering)

1.1.5 Domain 05. Fire and Emergency Management – 8.5%

Knowledge of:

1. Roles and functions of standard-setting bodies (local & international)
2. Safety standards, Occupational wellbeing management system.
3. Fire chemistry, fire explosion hazards (electrical, \mechanical, structural, hot work etc.)
4. Fire safety programs & prevention system
5. Fire detection system, devices, and fire control systems & devices
6. Emergency/disaster/crises response planning (chemical spills, terrorist attacks, natural disaster etc.
7. Fire suppression system
8. Incident management and behaviour, Investigation, competency, monitoring, and analysis of sight incidents.
9. Emergency preparedness & response planning (roadmaps, data collection, inquiring sight scene, reporting, dealing/ implementation with incident and seeking advice.)

Skills:

1. Calibrate, use, and maintain data logging, monitoring, and measurement equipment
2. Identify relevant labels, signs, and warnings
3. Interpret plans, specifications, technical drawings, and process flow diagrams
4. Calculate required containment volumes, hazardous materials storage requirements, and financial and reputational cost for the assessment of incident
5. Calculate statistics from data sources
6. Supporting emergency services, systems, and legal defence.
7. Supporting jobsite personnel in an emergency
8. Communicating in speech and writing and collaborative skills with team members.

1.1.6 Domain 06. Risk Management – 8.5%

Knowledge of:

1. Risk management principles
2. Risk control process or techniques
3. Hierarchy of control
4. Risk assessment process, (methodologies, directions, approaches etc)
5. Investigate the nature of risk, & risk prioritization (management strategies, action plans, control decisions)

6. Risk mitigation strategies and plan structure, analyse the risk analysis cost and predicted risk management.
7. Management process & safety system
8. Hazard communication (SDS/GHS)
9. Behaviour modification techniques, and Incident command system 10. Project management, and Safety programs

Skills:

1. Apply risk-based decision-making tools for prioritizing risk management options
2. Calculate metrics for organisational risk
3. Conduct job safety analyses and task analyses
4. Explain risk management options and concepts to decision makers, stakeholders, and the public
5. Prioritizing program needs
6. Identifying appropriate target audiences
7. Identifying appropriate program performance measurements 8. Communicating risk to affected parties

1.1.7 Domain 07. Communication & Training – 8%

Knowledge of:

1. Adult learning method & technique and interpersonal communication
2. Training needs analysis, data collection,
3. Assessing training competency
4. Presentation tools & method of facilitating
5. Effecting training program & multidisciplinary teamwork, self-motivation
6. Mentoring, behaviour & performance and individuals' responsibilities and accountabilities
7. Negotiation & interpersonal skills, and diversity and innovative management 8. Conflict resolution and generating potential problem solutions

Skills:

1. Perform training needs assessments
2. Develop training programs (e.g., presentation skills, tools)
3. Develop training assessment instruments (e.g., written tests, skill assessments) to assess training competency

1.1.8 Domain 08. Audit and Inspection – 7%

Knowledge of:

1. Audit principles & techniques and action plan for audit report.
2. Audit evaluation management system
3. Role of auditor and personal audit
4. Audit requirement for management system, and audit types (internal, external & third party) 5. Audit process and data collection techniques

Skills:

1. Identifying existing and foreseeable at-risk conditions and behaviors
2. Recognizing imminent danger
3. Using basic testing and monitoring equipment and auditing programs
4. Documenting observations and measurements, (e.g., note taking, photography, taking measurements)
5. Communicating in speech and writing 6. Applying health and safety standards, codes, and best practices

1.1.9 Domain 09. Environmental Management System – 7%

Knowledge of:

1. Environmental hazards and self-awareness
2. Environmental protection & prevention methods
3. Hazardous waste storage & disposal
4. Develop and implement environmental, safety, and health management systems
5. Engineering control (above & underground storage tanks, ventilation, land pollution & water pollution, air pollution, segregation & separation)
6. Administrative control (sustainability, EMS system, professional integrity, housekeeping, warning etc.)

Skills:

1. Extracting critical information from literature, standards, guidelines and other resources
2. Prioritizing hazards for evaluation, and anticipating exposure scenarios
3. Recognizing known potential hazards
4. Inventorying hazards
5. Surveying tasks, operations, and sites
6. Communicating with affected parties
7. Exposure reconstruction & forensic investigation

1.1.10 Domain 10. Mathematics & Advance Science – 6%

Knowledge of:

1. Performance metrics & indicator
2. Structural, physical & mechanical calculation
3. Financial & statistics calculation
4. Engineering & administrative control calculation
5. Core concepts in chemistry (organic, radiation and general chemistry)
6. Microbiology (e.g., nanotechnology, waterborne pathogens, and bloodborne pathogens)

Skills:

1. Calculate statistics from data sources
2. Calculate required containment volumes and hazardous materials storage requirements

1.1.11 Domain 11. Strategy and Leaderships Management –8.4%

Knowledge of:

1. Development of organisational structure required strategies (directions, analysis, roadmaps, approaches to the delivery)
2. Identification of Internal and External factors in market (Business effectiveness, standards, risk assessments, audit reports, and investigations).
3. Continuity of organisational improvements analysis (consequences assessments, 360 feedback, Sort Analysis, observations etc.)
4. Professional leadership management, progressive structure approaches, functional decision management.
5. Relationship between labour and management
6. Standards for Diversity and direction for management, cross function conflict managing.
7. Influencing leadership practice (goals, vision etc)
8. Leadership style / leadership technique, change of management & motivation models
9. Project management concept and technique.
10. System safety analysis techniques (like failure modes and effect analysis, fault tree analysis)

Skills:

1. Effective decision making and teamwork skills
2. PEEB Code of Ethics knowledge
3. Selection and use of appropriate sampling methods (analysis, strengths limitations)
4. Interpret plans, specifications, technical drawings, and process flow diagrams 5. Conduct root cause analyses