

Domain & Job Task Analysis

Certified Safety Specialist (CSS) June 2017

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Domain 1

Law and Ethics - 8%

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 workplace (managers, supervisors, safety committee etc.)
- 4- AOSH code of ethics
- 5- Legal issues (common law, compensation law, due diligence, general duty clause, civil & criminal law etc.)
- 6- Consequences of professional error and oversights

Skill to:

- 1.Interpret laws, regulations, and consensus codes and standards
- 2.Apply concepts of AOSH UK Code of Ethic

Domain 2

Ergonomics and Hygiene − 10%

Knowledge of:

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

Skill in:

- 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

Domain 3

Safety Fundamentals - 22%

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 work place hazard (electrical, falls, confined space, lockout/tag out, excavation, hot work, cold & heat stress, caught in & between, struck by,
- 5- Work tools safety (hand tools, ladders, grinder etc.

- 6- Process safety management (pressure relief system, management of change etc.
- 7- Personal protective equipment
- 8- Common worksites issue (contractor, seasonal employee etc.)
- 9- Safeguarding machinery (point of operation, interlocks etc.)
- 10- Importance of safety (design, procurement etc.
- 11- Hierarchy of control & engineering control

Skill to:

- 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. Selection and use of appropriate sampling methods (analysis, strengths limitations)
- 5. Ventilation measurements
- 6. Noise and vibration measurements
- 7. Radiation measurements
- 8. Thermal stress measurements
- 9. Comparing air sampling and measurement data to recognized criteria
- 10. Troubleshooting control technology
- 11. Reading and interpreting design drawings and specifications

Domain 4 Management Systems – 20%

Knowledge of:

- 1- Key element of management system (plan, do, check, act)
- 2- How to develop, implement, evaluate etc. OHSAS 18001/ISO 45001, ISO 9001
- 3- Health and safety culture & consultation (benefits, barrier, improvement, measured etc.)
- 4- Integration of health and safety into organizational structure, culture & design etc.
- 5- Elements of business continuity & contingency plans
- 6- Management function & understanding of quality management
- 7- How to measure, analyze, improve organizational culture,
- 8- What is benchmark & performance and how to measure
- 9- Problem solving process and conflict of management
- 10- Leadership style / leadership technique, change of management & motivation models
- 11- Adult learning principles and Training need analysis
- 12- Project management concept and technique
- 13- Work place violence & harassment management (recognition & prevention)

Skill to:

- 1. Analyze 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. Conduct root cause analyses
- 5. Develop and implement environmental, safety, and health management systems
- 6. Evaluate and analyze survey data
- 7.Perform gap analyses
- 8.Demonstrate business need via financial calculations(e.g., ROI, engineering economy, financial engineering)

Domain 5 Fire and Emergency Management – 9%

Knowledge of:

- 1. Roles and functions of standard setting bodies (local & international)
- 2. Fire chemistry and behavior
- 3. Fire safety programs & prevention system
- 4. Fire detection system, devices and fire control systems & devices
- 5. Emergency/disaster/crises response planning (chemical spills, terrorist attacks, natural disaster etc.
- 6. Fire suppression system
- 7. Incident management
- 8. Emergency preparedness & response planning

Skill to:

- 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 and hazardous materials storage requirements
- 5. Calculate statistics from data sources
- 6. Supporting emergency services and systems
- 7. Supporting jobsite personnel in an emergency
- 8. Communicating in speech and writing

Domain 6 Risk Management – 9%

Knowledge of:

- 1. Risk management principles
- 2. Risk assessment process & prioritization
- 3. Risk control process or techniques
- 4. Hierarchy of control
- 5. Hazard communication (SDS/GHS)
- 6. Behavior modification technique
- 7. Incident command system

Skill to:

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

Domain 7 Communication & Training – 8%

Knowledge of:

- 1. Adult learning method & technique
- 2. Training needs analysis
- 3. Assessing training competency
- 4. Presentation tools
- 5. Effecting training program
- 6. Mentoring
- 7. Negotiation & inter personal skills
- 8. Conflict resolution

Skill to:

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

Domain 8 Audit and Inspection – 7%

Knowledge of:

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

Skill in:

- 1. Identifying existing and foreseeable at-risk conditions and behaviors
- 2. Recognizing imminent danger
- 3. Using basic testing and monitoring equipment
- 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
- 6. Program auditing

Domain 9

Environmental Management system – 7%

Knowledge of:

- 1. Environmental hazards
- 2. Environmental protection & prevention methods

- 3. Hazardous waste storage & disposal
- 4. Engineering & administrative control

Skill in:

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