

Request for Quote**Subject: Airport Training** in Thunder Bay for the following subjects:

- SMS
 - SMS Elements and Framework #1001
 - Root Cause Analysis #1002
 - Risk Assessment #1002
 - Quality Assurance Program #1003

- Human Factors #1004

Dates: To be determined in two sessions – between February & April 2020.**Approximate number of participants:** 15-20 people (local headquarter staff) total**No of Pages:** 1 - 9

Please provide number of days required for delivery of this training.

Please provide a per person rate plus transportation cost quote (hard and soft copy) for the SMS & Human Factors Training.

Our staff operate 29 remote northern community airports. Most of our runways are gravel and we require a course tailored to the size and complexity of our airports.

Please review the following syllabuses for course content.

Trainer must have either have train-the-trainer certification, adult education certification utilizing adult learning methodologies or at least 3 years teaching experience.

Considered an asset: Qualifications in IRCA – International Registry of Certified Auditors, ASQ - American Society for Quality Assurance, SMS development experience or have lead airport audits.

Trainer must also have at least 5 years aviation related experience.

Contractor will submit with the quote a resume of the instructor showing qualifications to provide instruction as described on this quote request. The Ministry, acting reasonably will have the right to refuse any individual who is deemed to be not qualified as an instructor.Contractor will submit with the quote a course syllabus, a description of the training materials i.e. books, videos, training aids and identify what training materials will be given to the trainees. The training material given to the trainee cost will be an extra cost if approved by the Ministry.

Please provide the number of days required for delivery of this training on page 3 of this RFQ.

GENERAL

1. Contractor will arrange and pay all transportation costs for contractor trainer, including food and baggage, etc. This cost will be included in the quoted "cost of transportation".
2. Instructor must have demonstrated ability and knowledge concerning SMS – Safety Management Systems and Human Factors.
3. Upon completion of the work the Contractor will submit a certificate for each employee and include an electronic copy of the presentation in PowerPoint format and learning materials in Word format with the submission of the invoice.
4. The work will be awarded to the successful bidder, based on best value to the Ministry of Transportation. The lowest or any quote may not necessarily be accepted.
5. Complete information required on page 5 before the deadline and submit the additional information required. It will be the bidder's responsibility to verify that the quote was received.

Contact Vickie Nielsen if there are any questions.

Vickie Nielsen
Training Coordinator
Ministry of Transportation
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Quote Deadline: 12:00 PM (noon) EST ... Tuesday 5 February 2020

TO: Vickie Nielsen, MTO THUNDER BAY – FAX 807 473-2123 – Email: vickie.nielsen@ontario.ca

QUOTATION: SMS – Human Factors _____ (All taxes excluded)

- 1) Quote per person rate \$ _____

- 2) Cost of Transportation \$ _____

- 3) Name of Instructor _____

- 4) Cost of training material given to trainees \$ _____

- 5) Number of days required for training _____

The Ministry reserves the right to reject any or all submissions for any reason whatsoever and to accept only submissions considered best for its interest and to waive formalities as the interests of the Ministry may require without stating reasons, therefore, the lowest or any submission may not necessarily be accepted.

By:

Name of Firm or Individual

Address (Phone) (Fax)

Name of Person Signing for Firm

Email Address

Name: Safety Management Systems (SMS) and Framework

Qualification Code: #1001

Description:

Covers all elements and components within the framework of the SMS as defined by The International Civil Aviation Organisation (ICAO) and Transport Canada. Training under this element meets requirements under legislation and the Remote Northern Transportation Office Safety Management System.

Mode of Delivery: Classroom, E-learning

Knowledge, Skill and Ability - Course Learning Objectives:

Knowledge of:

- Annex 19 to the ICAO Convention, ICAO Doc 9859 – Safety Management Manual 4th ed, applicable regulations and history of SMS in Canadian Aviation
- Safety Management Fundamentals
 - Concept of Safety and its Evolution
 - Accident Causation e.g. Swiss Cheese Model
 - Overview of Airport Safety
- Safety Culture
 - Safety Culture and Safety Management
 - Developing a Positive Safety Culture
- The ICAO SMS framework
 - Safety Policy and Objectives
 - Management Commitment
 - Safety Accountability and Responsibilities
 - Appointment of Key Safety Personnel
 - Coordination of Emergency Response Planning
 - SMS Documentation
 - Safety Risk Management
 - Hazard Identification (*with examples relating to airports*)
 - Safety Risk Assessment and Mitigation
 - Safety Assurance
 - Safety Performance Monitoring and Measurement
 - The Management of Change
 - Continuous Improvement of the SMS
 - Safety Promotion
 - Training and Education
 - Safety Communication
- Understand the principles to establish an effective SMS program

Mode of Delivery: Classroom

Recurrence Requirement: 5 Years

Competency: Demonstration of knowledge through a written test. Reviewed and corrected to 100% with instructor.

Pre-Requisites: N/A

Required Materials: Organizations SMS Manual, Power Point, Hand-outs, Case Studies

Notes:

Name: Root Cause Analysis and Investigation

Qualifications Code: #1002

Program Area: SMS

Description:

Outline various common Root Cause Analysis Tools used to determine root cause for Aviation Occurrences and Audit Findings. Overview of the steps required to conduct and document an investigation into an aviation occurrence.

Mode of Delivery: Classroom, E-learning

Knowledge, Skill and Ability - Course Learning Objectives:

Knowledge of:

- Knowledge and application of various root cause analysis tools to determine and document root cause (i.e. Fishbone, Reasons Model of Accident Causation, 5-Why).
- Knowledge of steps required to conduct and document an occurrence investigation.
 - Forming an investigation team
 - Collection of information and evidence
 - Conduct of Interviews
 - Establishing Sequence of Events
- Identification of contributing factors at various layers of the organization (i.e. organizational, environmental, human, technical).

Ability to:

- Ability to apply root cause analysis to various hazards, incidents or audit findings.
- Document an investigation relating to a hazard or occurrence.

Skill:

- Critical thinking, non-bias approach

Recurrence Requirement: No

Competency: Multiple Choice Test – Review in class and corrected to 100% with instructor.

Pre-Requisites: N/A

Required Materials: Presentation, Hand-outs, Practical Case Studies

Notes: This training is typically included within SMS Training as required and is targeted to roles as defined within the SMS that conduct analysis and investigation.

Name: Quality Assurance

Qualifications Code: #1003

Program Area: SMS

Description:

Overview of Quality Assurance auditing programs as defined under SMS Legislation for personnel Managing an SMS Quality Assurance Program. Reference to the applicable regulations (CARS) with emphasis on operational conformance vs compliance audits.

From audit planning, implementation, finding, analysis, development of corrective actions and tracking, the content is inclusive of audit principles, sampling methods and techniques. The incumbent will be able to manage an audit program, apply principles and conduct audits.

Mode of Delivery: Classroom, E-learning

Knowledge, Skill and Ability - Course Learning Objectives:

Knowledge of:

- Canadian Aviation Regulations 302.503, 302.504, 302.505 and how to meet compliance through an auditing program
- Roles and Responsibilities of Audit Personnel
- Audit Preparation and Planning
 - Auditor Selection
 - Audit Related Documentation e.g. Standards and Procedures
 - Logistics
 - Auditing Tools and Working Papers e.g. Checklists
 - Auditing Strategies
- Audit Performance
 - On-Site Audit Management
 - Audit Data Collection and Analysis
 - Establishment and Organisation of Objective Evidence
- Audit Reporting
 - Audit Report Development and Content
- Audit Follow-up and Closure
 - Development and Review of the Corrective Action Plan
 - Tracking System for Corrective Actions
 - Verification of Corrective Actions
 - Follow-up on Ineffective Corrective Actions
 - Audit Closure
- Auditor Competencies
 - Auditor Characteristics
 - Time Management Skills
 - Conflict Resolution

- Communication and Presentation Techniques
- Interview Techniques
- Team Dynamics
- Targeted safety evaluations of Operational Processes
 - Auditing key processes such as Plan of Constructions, Vehicle Operator Programs, Airport Winter Maintenance, Obstacle Management Programs, etc.

Ability to:

- Apply audit principles to conduct audits, create effective corrective actions
- Develop compliant checklists for the purpose of compliance and operational audits
- Conduct targeted operational audits of specific systems
- Create audit plans
- Consistently document audit findings and corrective actions

Recurrence Requirement: No

Competency: Multiple Choice Test – Review in Class

Pre-Requisites: N/A

Required Materials: Presentation, Hand-outs, Practical Case Study

Notes:

Name: Airport Human Factors

Qualification Code: #1004

Program Area: SMS

Description:

As required under Canadian Aviation Regulations 302.07 (1) (g) the course defines the requirements for safety-related initial training on human and organizational factors.

Mode of Delivery: Classroom, E-learning

Skills, Qualifications and Knowledge - Course Learning Objectives:

Recognition of human factors and how they affect performance and the safety of the Airport Operational Environment.

Review components of Human Factors relevant to airport operations based on the PEAR Model:

- P for People
 - o Physical Factors
 - o Physiological Factors
 - o Psychological Factors
 - o Psychosocial Factors
- E for Environment
 - o Physical
 - o Organizational
- A for Actions
- R for Resources

Discuss Error in terms of Human Factors in Aviation

- Categories of Errors
 - o Intentional
 - o Unintentional
- Types of Unintentional Errors

Discuss Fatigue Management

- Fatigue Management
 - o Describe the common and uncommon causes of fatigue and identify the physical and mental symptoms and their effect on decision making.

Review of aviation dirty dozen

Recurrence Expiry: No

Competency: Multiple Choice Test – Reviewed in Class

Pre-Requisites: N/A

Required Materials: Presentation, Hand-outs, Practical Case Study

Notes: This element may be a stand-alone course or embedded within other courses.