Appendix C-12
Safety Culture Assessor Training and Qualification Journal

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Introduction:

The Office of Nuclear Reactor Regulation (NRR) Safety Culture Implementation Team (SCIT) developed this training document to certify individuals to be Safety Culture Assessors (SCAs) for Inspection Procedure (IP) 95003 inspections or general safety culture assessments. Any questions related to qualification as a SCA should be directed to the Branch Chief, Health Physics and Human Performance Branch (IHPB) in NRR.

Qualification as a SCA requires a firm understanding of two different subject areas, safety culture and inspection skills. Training and qualification guidance associated with developing safety culture skills is contained in Appendix 1, "Safety Culture Skills." Training and Qualification guidance associated with developing inspection skills come from IMC 1245 Appendix A and B.

The SCA does not need fully developed inspector skills since he/she functions as part of a team of inspectors. Therefore, the SCA qualification only requires partial completion of Appendix A and B as stipulated herein.

Safety Culture Assessor Competencies

Qualification as a SCA requires that you complete a variety of activities, each of which is designed to help you gain information or practice a skill that may be important during an IP 95003 inspection. When you have completed the entire qualification journal, you will have demonstrated each of the competencies listed below for a Safety Culture Assessor.

Competencies

1. Understand the legal basis for and the regulatory processes used to achieve the NRC's regulatory objectives by:
   - Understanding the basis for the authority of the agency (regulatory framework); and
   - Understanding the processes established to achieve the regulatory objectives (regulatory framework).

2. Master the techniques and skills needed to collect, analyze, and integrate information using a safety culture focus to develop a supportable regulatory conclusion by:
   - Independently gathering information through objective review, observation, and open communications (safety culture assessment);
   - Determining acceptability of information by comparing to established criteria (safety culture assessment);
   - Approaching problems objectively, gathering and integrating information, and developing a comprehensive understanding before reaching a conclusion (problem analysis); and
   - Objectively analyzing and integrating information using a safety culture focus to identify the appropriate regulatory conclusion and regulatory response (safety culture assessment).

3. Demonstrate the personal and interpersonal skills needed to carry out assigned regulatory activities, either individually or as part of a team by:

   - Clearly expressing ideas or thoughts, carefully listening, and speaking and writing with appropriate safety focus and context (communication);

- Working collaboratively with others toward common objectives (teamwork); and
- Working independently, exercising judgment, and exhibiting flexibility in the completion of activities that include difficult or challenging situations (self-management).

Qualification Board

All inspectors are required to complete an inspector qualification board as part of the qualification process. The inspector qualification board is used to evaluate how well an individual can integrate and apply inspector competencies to field situations. Upon an individual's completion of all requirements identified in the qualification journals, an inspector qualification board will confirm that the individual has the necessary knowledge, skills, and abilities to independently conduct the prescribed NRC inspections. Inspectors certifying as a SCA must successfully pass a qualification board unless previously qualified as an IMC 1245 inspector. For more information on qualification boards, review guidance in Section 05.03, "Final Qualification Activity" of IMC 1245.

Equivalency Justification Requirements

Previous work experience and training may be accepted as evidence of an equivalency justification for SCA qualification, provided that you already possess the required knowledge and skills normally achieved by completing the training activities. Your supervisor has the authority to accept previous experience and training as an alternate method for meeting the training activities contained in this training plan. In granting an equivalency justification, your supervisor should consider your ability to perform inspection activities without the benefit of the additional knowledge and regulatory perspective that would be gained by completing the specific training activities outlined in this plan. Justifications can be documented using Form 1, "Safety Culture Assessor Equivalency Justification."

Review of Completed Training

Training activities must be discussed with a qualified Level I or Level II SCA designated by the individual's regional supervisor, or with the NRR/IHPB Branch Chief. It is recommended that the qualifying individual determine who will be the reviewer of completed work as early in the qualification process as possible.

Documentation

Documentation of completed training is recorded on the SCA Signature Card. Equivalency justification for formal training courses, individual study activities, and on-the-job activities are recorded on Form 1.

Signature Card for Safety Culture Assessor Qualification

Employee Name: _____	*Employee Initials/Date*	*Supervisor's/ Subject Matter Expert Signature/Date*
A. Indicate the date of completing all inspector training requirements in IMC 1245 Appendix A and B; and skip sections B-D below. If Appendix A and Appendix B are not complete, complete sections B-D below.		
B. Inspection Training Courses: ***For non-inspector candidates not qualifying through Appendix A and Appendix B standards, completion of applicable sections of IMC 1245 Appendix A as described below is necessary.***		
1. H-100 Site Access Training		
2. R-100 Reactor Concepts		
3. G-104 Expectations for Inspectors		
4. Effective Communication for NRC Inspectors		
5. Gathering Information for Inspectors through Interviews		
6. G-205 Root Cause and Incident Investigation workshop		
7. Safety culture ROP training (web-based)		
8. Ethics Training (web-based)		
C. Inspection Individual Study Activities (ISA):		

For non-inspector candidates not qualifying through Appendix A and Appendix B standards, completion of applicable sections of IMC 1245 Appendix A as described below is necessary.		
(ISA-3) Inspector Objectivity, Protocol, and Professional Conduct		
(ISA-4) Fitness for Duty Rule		
(ISA-6) NRC's Response to an Emergency at a Nuclear Facility		
(ISA-16) Contacts with the Media		
(ISA-18) Freedom of Information Act and the Privacy Act		
(ISA-20) Documenting Inspection Findings		
(ISA-21) Open Collaborative Working Environment & Ways to Raise Differing Views" 1. OCWE http://www.internal.nrc.gov/OE/ocwe/index.html 2. NCP http://www.internal.nrc.gov/OE/ocwe/nonconcur/index.html 3. DPO http://www.internal.nrc.gov/OE/dpo/index.html		
(ISA-22) Overview of 10 CFR Part 50		
(ISA-23) Overview of Parts 19 and 20		
Complete the following elements from ISAs in IMC 1245, Appendix A		
(ISA-5) Allegations: tasks 1, 2, 3, 4, 6, 8, 9, and including completion of the web based allegation training and review of applicable guidance documents. Complete evaluation criteria.		
(ISA-9) Exploring the Operator Reactor Inspection Program: tasks 1, 2, 4, and 7. Complete evaluation criteria 1, 2, 3, 4, 5, and 9.		
(ISA-15) Interaction with the Public: tasks 1, 2, 3, 6, and 7, including review of applicable information regarding interacting with the public. Complete evaluation criteria 1, 2, 3, 7, 8 and 9.		
(ISA-19) Entrance and Exit Meetings: tasks 1 and 4. Complete evaluation criteria 1 and 2.		
(ISA-24) Licensee Specific Regulatory Documents and Procedures: all tasks. Complete evaluation criteria 6.		

(ISA-26) Exploring the Operating Reactor Assessment Program: task 2. Complete evaluation criteria 4 and 5.		
Complete the following ISA in its entirety from IMC 1245, Appendix B, "General Proficiency-Level Training and Qualification Journal:" (ISA-4) Safety Culture		
D. Inspection On-the-Job Training (OJT) Activities		
Participate on an inspection focusing on safety culture, organizational factors, Employee Concerns Program (ECP) evaluation, allegation follow-up, and/or human performance. (IP71152, 95002, 95003, 40100, AIT, etc.)		
E. Complete Qualification Activities below to qualify as a Level II Safety Culture Assessor		
Demonstrate knowledge of methods for gathering safety culture data and their appropriate strengths and weaknesses, including: *1.* Individual and group interviews *2.* Structured and unstructured interviews *3.* Questionnaires and surveys *4.* Behavioral observations and checklists *5.* Case Studies		
Demonstrate the ability to determine the applicability and likely usefulness of various data-gathering methods under different circumstances		
Demonstrate the ability to implement the different methods correctly, including but not limited to: 1. Conducting focus groups and interviews in a manner that elicits the desired		

information while reducing potential biases in the responses, 2. Conducting reliable (i.e., repeatable) structured behavioral observations 3. Conducting content analysis of written documentation and verbal communication 4. reviewing ECP and Allegation files for completeness and accuracy of licensee's evaluation		
Demonstrate ability to integrate results from applying the different methods to arrive at defensible conclusions		
Demonstrate knowledge of the NRC's Reactor Oversight Process and applicable inspection requirements and techniques		
F. Complete Additional Qualification Activities below to qualify as a Level I Safety Culture Assessor		
Demonstrate knowledge of statistical and conceptual constraints on determining appropriate sample sizes for each method		
Demonstrate knowledge of the rationale for a multi-measures approach and ability to assess the limitations of a single-method safety culture assessment.		
Demonstrate knowledge of the alternatives for selecting samples for the assessment and the biases introduced by different sample selection strategies.		
Demonstrate knowledge of theories and research in organizational and human behavior.		
Demonstrate knowledge of the requirements for developing, administering, and analyzing the results of surveys and questionnaires, including: 1. The strengths and weaknesses of different item types (Likert, BARS, forced-choice, etc.) 2. The requirements for administering a survey to reduce potential biases in the responses.		

3. Behavioral statistics and the appropriate methods, and their constraints, for analyzing survey data. *4.* Statistical requirements for the different types of validity and reliability, and appropriate techniques to assess/measure/establish them.		
Demonstrated leadership skills: 1. Ability to direct the safety culture assessment activities. 2. Ability to supervise and train Level 2 Safety Culture Assessors. 3. Ability to coordinate and communicate effectively with the Team Leader, Assistant Team Leader, other members of the inspection team, Regional management, and plant senior management. 4. Ability to deal with unforeseen issues as they arise. 5. Ability to effectively articulate and respond to any questions/challenges from internal and external stakeholders on the safety culture assessment and findings.		

Supervisor's signature indicates successful completion of all required courses and activities listed in this journal. *
*Supervisor may delegate this authority to a qualified SCA in NRR or the Regional Office, or to the Branch Chief for NRR/IHPB.

*Supervisor's Signature: _____ Date: _____

The appropriate Form 1, "Safety Culture Assessor Equivalency Justification," if applicable, must accompany this signature card and certification.

Copies: Assessor, Human Resources Office, Supervisor

Safety Culture Assessor Certification

_____

Has successfully completed all of the requirements
to become a

Safety Culture Assessor

❑ **Level II** ❑ **Level I**

Branch Chief, IHPB/NRR Signature:_____ Date:_____

Division Director Signature:_____ Date:_____

Form 1: Safety Culture Assessor Equivalency Justification

Office/Region/Division Branch:_____
Employee Name: _____
Position: _____
Supervisor: _____

Training Journal Requirement(s) to be Waived:_____
_____
_____
_____
_____
_____

Justification for Waiving Requirement(s) (identify equivalent training and/or experience for which the employee is to be given credit):_
_____
_____
_____
_____
_____

Branch Chief's Recommendation

Signature/Date:_____

Division Director's Approval

Signature/Date:_____

Copies to:
Employee
Employee Branch Training File
Human Resources
Health Physics and Human Performance Branch (IHPB), NRR

Attachment 1: Safety Culture Skills

This attachment ensures that Safety Culture Assessors (SCAs) have the necessary knowledge and experience to perform the safety culture activities in an Inspection Procedure 95003 inspection. SCA's are certified as level I or II based on experience and education in the areas of safety culture, human factors, and/or organizational factors.

If it is determined that you do not meet the experience or education requirement listed in the core document and you would like to be able to become a Safety Culture Assessor, contact your supervisor and the Branch Chief, Health Physics and Human Performance Branch (IHPB) NRR, to discuss developmental options to fulfill the qualification prerequisites.

Level I and II Assessors

Safety Culture Assessors are divided into two levels based on education/experience level. Level I are senior staff who meet all the knowledge, skills, and abilities (KSAs) needed to carry out the inspection activities listed in IP 95003 for Safety Culture Assessors through education, experience or a combination of both. In addition, Level I Assessors should also demonstrate the ability to perform in a leadership role on safety culture inspection teams. Level II assessors are staff who meet some, but not all of the KSAs through education and experience.

Level I qualifications: An individual qualifying as a Level I Safety Culture Assessor should demonstrate all of the KSAs listed in the table below and have hands-on experience conducting the types of tasks required by IP 95003 in similar environments. This requirement may be satisfied in several ways, including finishing formal education in the social or behavioral sciences, or by having hands-on inspection experience at licensed facilities performing the duties of a Level I Assessor, as described above. In addition, because of the responsibilities involved, a Level I Safety Culture Assessor must have demonstrated leadership skills (e.g., have led activities of similar scope or significance).

Level II qualifications: To qualify, an individual should have recent (i.e., within the last 5 years), training and/or hands-on experience in the KSAs required for a Level II Safety Culture Assessor.

Level Specific Knowledge and Skills

The table below illustrates level specific knowledge and skills.

IP 95003 KSA	Level I	Level II

Knowledge of appropriate methods for gathering safety culture data and their strengths and weaknesses, including: - Individual and group interviews - Structured and unstructured interviews - Questionnaires and surveys - Behavioral observations and checklists - Case studies	✓	✓
Ability to determine the applicability and likely usefulness of various data-gathering methods under different circumstances	✓	
Ability to implement the different methods correctly, including, but not limited to: - Conducting focus groups and interviews in a manner that elicits the desired information while reducing potential biases in the responses - Conducting reliable (i.e., repeatable) structured behavioral observations - Conducting content analyses of written documentation and verbal communications	✓	✓
Knowledge of the requirements for developing, administering, and analyzing the results of surveys and questionnaires, including: - The strengths and weaknesses of different item types (Likert, BARS, forced-choice, etc.) - The requirements for administering a survey to reduce potential biases in the responses - Behavioral statistics and the appropriate methods, and their constraints, for analyzing survey data - Statistical requirements for the different types of validity and reliability, and appropriate techniques to assess/measure/establish them	✓	
Knowledge of the rationale for a multiple-measures approach and ability to assess the limitations of a single-method safety culture assessment	✓	

Knowledge of statistical and conceptual constraints on determining appropriate sample sizes for each method	✓	
Knowledge of the alternatives for selecting samples for the assessment and the biases introduced by different sample selection strategies	✓	
Knowledge of theories and research in organizational and human behavior	✓	
Ability to integrate results from applying the different methods to arrive at defensible conclusions	✓	✓
Knowledge of the NRC's Reactor Oversight Process and applicable inspection requirements and techniques	✓	✓
Knowledge of theory and research in safety culture	✓	

Additional KSAs	**Level I**	**Level II**
Knowledge of principles underlying safety culture assessment and assessment methodologies	✓	✓
Ability to lead safety culture assessment activities, including: -Supervise and train Level II Safety Culture Assessors -Coordinate and communicate effectively with the Team Leader, Assistant Team Leader, other members of the inspection team, Regional management, and plant senior management -Effectively manage unforeseen issues as they arise -Effectively articulate and respond to any questions/challenges from internal and external stakeholders on the safety culture assessment and findings	✓	

Certification

Branch Chief NRR/IHPB certifies candidates as a Level I or II, and document certification in the qualification signature card. The

factors to be considered in assessing a candidate's readiness will vary on a case-by-case basis. The supervisor should meet with the candidate to discuss relevant knowledge and experience to determine qualification level or if the candidate needs additional training. The supervisor may choose to delegate this discussion to a qualified SCA in NRR or the Regional office, or to the Brach Chief NRR/IHPB.

Note: In determining certification, special consideration should be given to the ability of the individual to effectively carry out the IP 95003 safety culture activities, such as conducting interviews and focus groups.

Improving Safety Culture Skills

If an individual does not meet the education and experience requirements listed above, but would like to eligible for that level, he/she should take additional training or gain relevant experience as described below.

To meet Level I: In addition to the Level II activities below, the individual should undergo advanced training in focus group facilitation, interviewing techniques, and should demonstrate an understanding of the underlying theories and principles of organizational culture. This can be achieved by gaining experience in all of the KSAs listed, and conducting the types of tasks required by IP 95003 for safety culture assessments in similar environments. In addition, he/she should gain experience in leading activities that are of similar scope or significance as IP 95003 safety culture activities.

To meet Level II: The individual should take the following required training courses/sessions:

NRC Courses
-Root cause/incident investigation workshop (see NRC iLearn webpage)
-Applied statistics (see NRC iLearn webpage)
-Columbia self-study (see http://nrr10.nrc.gov/rop-digital-city/electronic-read-sign.html)
-Safety culture self-study (see http://nrr10.nrc.gov/rop-digital-city/electronic-read-sign.html)

External Courses
-A course covering psychological/organizational research methods
-A course covering survey administration and research
-A course covering statistics in social or behavioral science applications
-A course covering organizational or human behavior

- Seminars though ProAct Safety, Inc.:
  http://www.proactsafety.com/

- National Training Lab Institute: Diagnosing organizations with impact course:
  http://www.ntl.org/inner.asp?id=178&category=2

- Center for Chemical Process Safety: Building process safety culture: tools to enhance process safety performance (see case studies for self-study):
  http://www.aiche.org/CCPS/PSCulture.aspx

- National Safety Council: Building a work class safety culture course:
  http://www.nsc.org/training/index.aspx

- George Mason University Department of Psychology courses:
  http://www.gmu.edu/catalog/courses/psyc.html

- University of Maryland Department of Psychology courses:
  http://www.gradschool.umd.edu/catalog/courses/PSYC.html

- Johns Hopkins University Department of Psychology courses:
  http://www.psy.jhu.edu/

- Catholic University Department of Psychology courses:
  http://psychology.cua.edu/

- University of Michigan Human Factors Short Course (1-2 weeks)
  http://www.umich.edu/~driving/shortcourse

The individual is also strongly encouraged to take additional courses on relevant topics such as organizational psychology, human factors/performance, psychometrics, and safety culture, depending on his/her experience level in these areas. Although not required, such courses provide additional coverage of the KSAs needed to perform the safety culture activities of IP 95003.

Any questions related to qualification as a SCA should be directed to a qualified SCA in NRR, or to the Branch Chief, NRR/IHPB.

ATTACHMENT 1

Revision History for IMC 1245 Appendix C-12, “Safety Culture Assessor Training and Qualification Journal”

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A		This is a new document issued for training and qualifications for safety culture assessors.	No	N/A	ML11102A124