




# Guideline

QGTR-GUD-01

## Construction Inspector Training Guideline


### Abstract:

*The intent of this document is to provide guidance to members of Construction and Quality Management (CQM), field Construction, Functional Leads for Safety, Environmental, Contract Conformance, and others when planning, executing, and recording Inspector training activities.*

Issued By:	Principal Project Manager of Construction	
Approved By:	Director of Construction and Quality Management	
Effective Date:	07/01/2013	
Revision Date:	10/16/2017	
Doc Name:	Inspector Training Guideline	
Doc No:	QGTR-GUD-01	
Department:	Engineering Quality Assurance	
Doc Type:	Guideline	


Saved 08 January 2021 Printed 8-Jan-21

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## 0.0 MANAGEMENT SYSTEM STANDARDS REQUIREMENTS

### 0.1. Policy Statement

#### 0.1.1. Requirements

##### 0.1.1.1. Consistent and Professional

Training shall be delivered in a consistent and professional manner that includes but is not limited to:

- Sourcing and presenting training materials from Approved Modules
- Using trainers who are qualified in the subject they are presenting
- Planning and adhering to a comprehensive agenda that meets the requirements of the project
- Being respectful in regards to sticking to time limits stated in the agenda
- Engaging the audience and other presenters in a professional manner
- Maintaining proper records

##### 0.1.1.2. Construction Event

Inspector training is a construction event in which other functional groups are invited to present information that is relevant to the field Inspector.

##### 0.1.1.3. Attendance

All Inspectors, including subsequent Inspectors, must attend the training identified in section "0.3 Scope."

##### 0.1.1.4. Qualified Trainers


Only qualified Trainers may present the Minimum Required Training modules. Functional Group Leads are responsible for designating Qualified Trainers in a timely fashion. Qualified trainers have been trained by a subject matter expert on how to deliver training in a manner that is compliant with the guidelines in this document. Exceptions to this requirement will be functional and group specific. Exceptions will be documented in 20.2.1 "Exceptions to Qualified Trainers."

### 0.2. Purpose and Objective

The intent of this document is to provide guidance to members of Construction and Quality Management, Field Construction, Functional Leads for Safety, Environmental, Contract Conformance, and others when planning, executing, and recording inspector training activities.

### 0.3. Scope

This document applies to Inspector training on all maintenance and capital expansion projects (including breakout projects) in the US, Maritimes Northeast in Canada, and Express Platte.

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Exclusions: Transmission/Operations training is specifically excluded from these guidelines.

#### **0.4. Compliance**

This document supports Framework Standards for Competency Assurance and Training, Continual Improvement, Knowledge Management, Inspections, and Operational Readiness.

#### **0.5. Process Owner(s)**

The Principal Project Manager of Construction and Quality Management and the Manager of Construction and Quality Management are the owners of the processes identified in this document unless specifically stated otherwise.

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## 0.6. Inputs and Outputs

Inputs	Process/Activity	Outputs
<ul style="list-style-type: none"> <li>Project Execution Plan</li> </ul>	Inspector Training Sessions	<ul style="list-style-type: none"> <li>Onboarded inspectors</li> </ul>
<ul style="list-style-type: none"> <li>Construction Agreement</li> </ul>		<ul style="list-style-type: none"> <li>Inspector training records</li> </ul>
<ul style="list-style-type: none"> <li>QMFD-MAN-01 Function Descriptions</li> </ul>		<ul style="list-style-type: none"> <li>Inspector training competency evaluations</li> </ul>
<ul style="list-style-type: none"> <li>QGSCP-GUD-01 Sourcing Construction Personnel</li> </ul>		<ul style="list-style-type: none"> <li>Inspector Reference Manual</li> </ul>
<ul style="list-style-type: none"> <li>Framework Standard 5.1 Competency Assurance and Training</li> </ul>		<ul style="list-style-type: none"> <li>Inspection kits</li> </ul>
<ul style="list-style-type: none"> <li>Framework Standard 4.3 Contractor Management</li> </ul>		
<ul style="list-style-type: none"> <li>Minimum Required Training Modules</li> </ul>		
<ul style="list-style-type: none"> <li>Qualified Training Leads</li> </ul>		
<ul style="list-style-type: none"> <li>Ethics and Compliance (the Source)</li> </ul>		

Table 1: Inputs and Outputs


### Linkages

#### Required Linkages

- QMFD-MAN-01 Construction and Quality Management Function Descriptions
- QMFM-MAN-01 Quality Management Manual
- QGSCP-GUD-01 Sourcing Construction Personnel Guideline
- Construction and Quality Management Training Portal (SharePoint)
- Approved Training Modules (SharePoint)
- QWTR-WIN-01 Inspector Training Log Update Instructions
- QFTR-FRM-02 Spectra Energy Inspector Training Agenda
- QMIMT-MAN-01 – Inspection and Measuring Equipment for standard kit requirements
- Framework Standard 6.2 Audits and Framework Standard 6.5 MS Quality Assurance
- Training Competency document library

#### Potential Linkages

- QHOC-HBK-01 Office Clerk Handbook

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- *NDE Tech Booklet*
- *DOT Forms and Examples*
- *OQ Task Booklet*

## 0.7. Roles and Responsibilities


Construction Management is accountable for ensuring that all Inspectors are qualified, have received the Minimum Required Training, and are onboarded to the Company's culture of safety and quality; prior to placing them on the ROW or at a site. Construction and Quality Management serves as the governance group that ensures that there is an integrated body of knowledge available to train and onboard Inspectors in a consistent manner. The organization and execution of Inspector training covers several functional groups, Construction and Quality Management, Construction Management, Safety, Environmental Construction Permitting, Contract Conformance, Metallurgical Services, Pipeline Integrity, Design, and Operational Compliance.

Role	Responsibilities
Chief Inspector	<ul style="list-style-type: none"> <li>• Attends required training</li> <li>• Helps to facilitate discussions during training</li> <li>• Asks relevant questions during training</li> <li>• Completes any required training records</li> </ul>
Director of Construction	<ul style="list-style-type: none"> <li>• Holds Construction Management accountable for providing the appropriate amount of support for inspector training</li> </ul>
Director of Construction and Quality Management	<ul style="list-style-type: none"> <li>• Approves this document</li> <li>• Reviews document and makes suggestions for corrections or updates. Director of Construction and Quality Management: is responsible for ensuring the message of training structure, policy, process, and procedures is conveyed and understood by the Area Managers of Construction. This position is ultimately responsible for ensuring that the inspection staff is competent, qualified, and trained to inspect at the level required by the project.</li> </ul>
Functional Group Lead	<ul style="list-style-type: none"> <li>• Creates and signs off on content that is to be represented at Inspector training sessions. Each functional group is accountable for providing a qualified resource to present their interests in Inspector training</li> <li>• Is a member for one functional group such as Environmental, Safety, ROW, Regulatory, etc. appointed to represent that function for Inspector training.</li> </ul>
Inspector Training Committee	<ul style="list-style-type: none"> <li>• Inspector Training Committee: includes a representative from each of the field Construction Offices, as well as a Manager of Construction and Quality Management and staff, and a Project Manager of Construction and Quality Management and staff.</li> <li>• The committee is responsible for Inspector training content development, as well as approving Inspector training content submitted by functional groups. Members are</li> </ul>

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Role	Responsibilities
	also responsible for representing the interests of the field Construction Offices to the committee, as well as conveying information about Inspector training to the field Construction Offices.
Inspector Training Compliance Coordinator	<ul style="list-style-type: none"> <li>Coordinates with Functional Group Leads for new modules and revisions to existing modules</li> <li>Archives outdated modules</li> <li>Uploads new and revised modules</li> <li>Updates metadata on slides and in the Document Library</li> <li>Is a member of the Inspector Training Committee that ensures approved modules are in compliance with this guideline</li> </ul>
Inspector Training Team	<ul style="list-style-type: none"> <li>The Inspector Training Team is primarily involved in the planning and execution of Inspector training sessions</li> <li>The Inspector Training Team's composition changes from Inspector training to Inspector training, but will generally include the training representative for the field Construction Office (a committee member), Construction Superintendent(s) for the project(s), Lead Coordinator of Construction Quality and the Specialist of Construction Quality (SCQ).</li> <li>Superintendent(s)/Coordinator of Construction should attend the Inspector training sessions, and provide the welcome message, project scope, etc.</li> </ul>
Inspectors (all)	<ul style="list-style-type: none"> <li>Attend required training</li> <li>Ask relevant questions during training</li> <li>Complete any required training records</li> </ul>
Lead Coordinator of Construction Quality	<ul style="list-style-type: none"> <li>Ensures that a proper training agenda is developed and published to the CQM calendar of the CQM SharePoint site</li> <li>Serves as the local SME on Inspector training</li> <li>Provides local assurance that Inspector training is executed in a manner consistent with the guidance in this document</li> <li>Is a member of the Construction and Quality Management group and is responsible for leading the coordination of the Inspector training sessions. This position was previously titled "Regional Lead Coordinator of Construction and Quality Management" or "Project Lead Coordinator of Construction and Quality Management"</li> </ul>
Manager of Construction and Quality Management	<ul style="list-style-type: none"> <li>Reviews and comments on document</li> <li>Serves as one of the document owners</li> <li>Manager of Construction and Quality Management is a member from Quality Management who is responsible for ensuring training sessions adhere to requirements, processes, policy, procedures, and guidelines set forth by CQM</li> </ul>
Managers of Construction	<ul style="list-style-type: none"> <li>Are accountable for ensuring that all Inspectors under their span of control attend the Inspector training sessions and are also responsible for ensuring that the appropriate resources from the Region participate in Inspector training</li> <li>Help to facilitate discussions during training</li> </ul>

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Role	Responsibilities
	<ul style="list-style-type: none"> <li>Accountable for planning for the training of Subsequent Inspectors</li> <li>Hold Functional Group Leads responsible for providing qualified resources to be available to provide training</li> </ul>
Office Clerks	<ul style="list-style-type: none"> <li>Support the organization of Inspector training</li> </ul>
Principal Project Manager of Construction and Quality Management	<ul style="list-style-type: none"> <li>Issues the document</li> <li>Serves as the primary editor</li> <li>Serves as one of the document owners</li> <li>Responsible for leading the development of the curriculum with the input of individual subject matter experts</li> <li>Project Manager of Construction and Quality Management: is a member from Quality Management resource responsible for leading process improvement projects, including enhancements to training</li> <li>Responsible for ensuring functional groups, training teams, and Inspector Training Committees understand the guidance in this document</li> </ul>
Service Administrators	<ul style="list-style-type: none"> <li>Inform the Lead Coordinator of Construction Quality when sourcing Inspectors in order the Lead to start planning and coordinating Inspector training</li> </ul>
Specialist of Construction Quality (SCQ)	<ul style="list-style-type: none"> <li>Supports Inspector training through coordination of agenda development with the Superintendent and presenting of modules as required</li> <li>Is a member of the Construction and Quality Management group and is responsible for supporting Inspector training and execution. This position was previously titled "Construction Documentation Coordinator" (CDC).</li> </ul>
Sr. Documentation Coordinator	<ul style="list-style-type: none"> <li>Assists in ensuring training records are uploaded in a timely fashion</li> </ul>
Superintendents of Construction	<ul style="list-style-type: none"> <li>Participates in the planning for the training of Inspectors, including Subsequent Inspectors</li> <li>Are members from Construction who have an extremely visible role at Inspector training sessions. They are responsible for ensuring SCQs fully understand the scope of projects and the training needs. Superintendents and Coordinators are responsible for serving as the Company's main representatives for Construction at Inspector training.</li> </ul>

Table 2: Roles and Responsibilities

## 0.8. Training and Competency

Construction and Quality Management is responsible for providing the appropriate training to:

- Construction Management and Construction Coordination (field level)
  - ◇ Functional Group Leads
  - ◇ Safety

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- ◇ Environmental Construction Permitting
- ◇ Contract Conformance
- ◇ Metallurgical Services
- ◇ Pipeline Integrity
- Construction and Quality Management
- Lead Coordinators of Construction Quality
- Specialist of Construction Quality

Competency will be evaluated by the Process Owners by auditing the process and by performing quality control on training agendas developed by Regions or Breakout Projects competency evaluation records.

## **0.9. Document Management**

### **0.9.1. Document Type**

This document is a “guideline” document.

### **0.9.2. Document Storage/Access**

The most current version of this document will reside on the Construction and Quality Management site in the Processes and Procedures document library (see footer of this document for exact link to document). Printed copies are uncontrolled.

### **0.9.3. Communication and Distribution**

#### **0.9.3.1. Communication**

Construction and Quality Management will provide awareness training on the guideline to Construction Management, Construction and Quality Management, and Functional Group Leads (on the Training Team).

#### **0.9.3.2. Distribution**

Construction and Quality Management will distribute uncontrolled copies as well as a link to the current version to Construction Management, Service Administrators, Construction and Quality Management, and Functional Group Leads (on the Training Team). Additionally, an announcement will be placed on the Construction and Quality Management site.

### **0.9.4. Document Review**


This document will be reviewed on an annual basis at a minimum, as well as when there are organizational changes or changes in responsibilities for a position.

### **0.9.5. Document Revision**

#### **0.9.5.1. Living Document**

This document is a “Living Document” and may be continually updated throughout the year.

#### **0.9.5.2. Document Revision History**

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See APPENDIX: I Revision Log for list of revisions to this document.

#### **0.9.6. Approval Requirements**

The Director of Construction and Quality Management, or delegate, is responsible for approving this document.

### **0.10. Records Management**

#### **0.10.1. Training Records**

Individual Inspector training records and Inspector training sessions (sign in sheets) are stored in Inspector training logs on the Construction and Quality Management site.

- **Inspector Training Log:**  
<https://extsites.spectraenergy.com/corp/projexec/ecteam/Lists/Training%20Log%20List/AllItems.aspx>
- **Inspector Training Sessions:**  
<https://extsites.spectraenergy.com/corp/projexec/ecteam/Lists/Training%20Session%20Log/>

See 17.0 Inspector Training Records for additional information.

#### **0.10.2. Training Agendas**

Inspector training agendas are stored in the corresponding Inspector training session log for each day on the Construction and Quality Management site.

- <https://extsites.spectraenergy.com/corp/projexec/ecteam/Lists/Training%20Session%20Log/>

### **0.11. Performance Assurance**


Construction and Quality Management will audit adherence to the guidance in this document as a part of QMQM-MAN-01 *Quality Management Manual*, as well as part of the requirements of Framework Standard 6.2 Audits and Framework Standard 6.5 MS Quality Assurance.

### **0.12. Effective Date**


The effective date of this document is 07/01/2013.

### **0.13. Controlled Vocabulary**

Term	Description
<b>Company</b>	Enbridge (US Gas Transmission)
<b>Established</b>	A process or other requirement is established if it meets all of the following; it has been developed in the format required, approved and endorsed for use by the appropriate management authority, and communicated throughout the organization. Staff and contractors, and others that may require


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	knowledge of requirement, are aware of the process requirements and its application. Staff has been trained on how to use the process or other requirement. Workforce personnel can demonstrate that the process or other requirement has been implemented on a permanent basis (for purposes of the framework, "permanent" shall be defined as >3 months).
<b>Field Construction Office</b>	Field Construction Offices strategically located along the Company's pipeline system.
<b>Functional Group Lead (for training)</b>	Is a member for one functional group, such as Environmental, Safety, ROW, Regulatory, etc., appointed to represent that function for Inspector training. This individual is responsible for creating and signing off on content that is to be represented at Inspector training sessions. Each functional group is accountable for providing a qualified resource to present their interest in Inspector training.
<b>Inspector Training Committee</b>	Includes a representative from each of the Field Construction Offices, as well as a Manager of Construction and Quality Management and staff, and a Project Manager of Construction and Quality Management and staff. The committee is responsible for Inspector training content development, as well as approving Inspector training content submitted by functional groups. Members are also responsible for representing the interest of the Field Construction Offices to the committee, as well as conveying information about Inspector training to the Field Construction Offices.
<b>Inspector Training Compliance Coordinator</b>	Member of the Inspector Training Committee who ensures training modules are in compliance with this guideline.
<b>Inspector Training Team</b>	<p>Personnel from the Field Construction Offices that are charged with planning and executing Inspector training. The team is project specific and members include but not limited to:</p> <ul style="list-style-type: none"> <li>• Managers of Construction</li> <li>• Superintendents of Construction</li> <li>• Lead Coordinator of Construction Quality</li> <li>• Specialist(s) of Construction Quality</li> <li>• Functional Group Leads for: <ul style="list-style-type: none"> <li>○ Safety</li> <li>○ Environmental</li> <li>○ Contract Conformance</li> </ul> </li> </ul>
<b>Minimum Required Training</b>	Minimum Required Training is <b>DIRECTLY</b> related to ensuring construction startup activities are done in a manner that enhances public safety, personal safety, and security while minimizing risk to health and the environment, as well as keeping the Company operationally compliant.
<b>Non-Required Training</b>	Non-Required Training is limited to information that is NOT DIRECTLY related to ensuring, construction startup activities are done in a manner that enhances public safety, personal safety, and security while minimizing risk to health and the environment, as well as keeping the Company operationally compliant.
<b>Quality Management</b>	When capitalized refers to the Quality Assurance/Quality Management group. When not capitalized it refers to the process of quality management or practice of quality management. Example: "It is important that quality management be applied to Inspector training." "Responsibility for developing audit procedures belongs to Quality Management."
<b>Source of Record (for training)</b>	The primary record. Other documentation or repositories may reference the Source of Record.

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<b>Subsequent Inspectors</b>	<p>Inspectors who arrive after one of the planned, larger, primary Inspector training sessions. Subsequent Inspectors may join a project after the primary training sessions for a couple of reasons, including but not limited to:</p> <ul style="list-style-type: none"> <li>• An existing Inspector unexpectedly leaves</li> <li>• The work of the Inspector starts at a date later than when the original training sessions took place.</li> </ul>
<b>Training Sessions</b>	A single day of organized training. Inspector training that occurs over a three day period would be three different Inspector training sessions.
<b>Training Team</b>	Includes members from the Field Construction Office/Breakout Project, as well as from Quality Management, who participate in Inspector training sessions. Construction members are responsible for assisting committee members with training content development, and the planning, executing, and recording of Inspector training. Quality Management members are responsible for ensuring compliance with training standards.

Table 3: Controlled Vocabulary

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## 1.0 OVERVIEW


Prior to executing the duties of an Inspector on a Construction project, an Inspector must be properly trained on the general topics of safety, construction roles and responsibilities, and environmental concerns. For this to happen in an effective, efficient, and professional manner, it must be properly planned for: including but not limited to:

- Developing training content
- Updating training content
- Scheduling training sessions
- Selecting venues
- Creating agendas
- Confirming presenters
- Maintaining attendance sheets
- Evaluating effectiveness and comprehension
- Lessons learned

The general approach to Inspector training is to hold an “Inspector Training Session” during Phase IV of the Project Lifecycle, just before the start of construction. Large capital expansion projects (in excess of \$30,000,000) will normally have an Inspector training session specifically dedicated to that project(s). Smaller capital expansion projects, maintenance capital, and interconnect projects, will generally hold joint Inspector training sessions based on region of country and timing. In most construction seasons each Field Construction Office will hold at least one Inspector training session, and have additional training sessions as required by workload in that Region. This is not a requirement and can be scaled based on project workload for the Field Construction Office.

In the event that a Field Construction Office does not have a workload sufficient to justify its own Inspector training session, it may combine with another Field Construction Office and hold a joint session. In the instance of a joint session, the hosting Field Construction Office shall maintain the lead role, and the other Field Construction Office will be responsible for supplying the hosting Field Construction Office with training requirements for its Inspectors.

Training content passes through an approval process before it is used in Inspector training sessions. Training content (slide decks, evaluations, handbooks, etc.) is managed by Quality Management. The primary development and updating of training content is done by members of the Field Construction Offices. Quality Management members guide the development of content to ensure that it meets the requirements of the Quality Management System (QMS), regulatory/code changes, and corporate policy.

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Content includes but is not limited to: core modules, bolt-on modules, breakout sessions, handbooks, videos, vendor presentations, and Technical Group presentations. Quality Assurance/Quality Control maintains a central online repository for training content.

Construction and Quality Management is committed to continually improving the effectiveness and efficiency of Inspector training. Evaluation of comprehension, and of presentation, is critical to understanding what areas need focus in future training sessions. CQM utilizes various tools such as tests, surveys, and personal interviews, among other methods, to evaluate training.

CQM maintains Inspector training records, including but not limited to: attendance sheets, agendas, presentations, tests, interviews, and surveys. Electronic copies are maintained on the Construction SharePoint site.

### **1.1. Philosophy**


Inspectors are expected to arrive on an Enbridge project qualified to the basic qualifications set forth in the function description for that position. See QMFD-MAN-01 *Construction and Quality Management Function Descriptions* for additional information.

The purpose of Inspector training is to provide Enbridge specific expectations regarding construction inspection. The intention of Inspector training is not to expose the Inspectors to vast amounts of information that does not pertain to their day-to-day work. Inspector training (aka Inspector orientation) is a “Construction” coordinated event in which other functional groups are asked to present pertinent information from their groups to Inspectors. All functional groups are expected to respect agenda time frames for presentations.

The Company believes that inspection training should be carried out in a professional manner; that includes materials, presenters, and conduct that is professional.

Construction and Quality Management requires that the inspection staff be technically competent and well versed in Company-specific construction processes, procedures, and specifications. In order to ensure this, the Company trains and evaluates inspection staff on this information. Prior to executing the function of an Inspector on an active job site, an Inspector must attend all core modules. If additional training specific to a project would provide benefit to Inspectors, then the Field Construction Office / breakout project should make every effort possible to provide the Inspector with that training.

CQM strives to make Inspector training concise but effective, and continually seeks to improve training through various feedback mechanisms.

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## 1.2. Leadership Development

CQM sees the planning and execution of training sessions as an opportunity to develop leadership qualities in team members. Local project members should be utilized wherever possible to provide training module instruction.

Construction and Quality Management promotes the concept that inspection is an extension of the Construction Management profession and that the Company should convey its expectation that the inspection staff execute its duties in a professional manner. A key piece of this message depends on CQM developing a core team of trainers who understand the construction process, as well as having been trained themselves to lead training sessions for inspection. This core team of trainers is composed of Documentation Coordinators for CQM.

## 1.3. Construction Management Involvement

Construction and Quality Management encourages Area Managers of Construction, as well as Superintendents/Coordinators, and other E&C leadership to actively participate in the Inspector training sessions as a way to build team unity, answer project questions, and serve as a symbol of the Company's commitment to training.

## 1.4. Construction Management for Inspection


According to the Construction Management Association of America, "Construction Management is a professional service that applies effective management techniques to the planning, design, and construction of a project, from inception to completion, for the purpose of controlling time, cost, and quality."

The Company ensures that the inspection staff receives extensive training on construction management roles, responsibilities, processes, communications, and the Company's expectation of performance. The type, amount, duration, and level of training on construction management will be aligned on a job-function by job-function basis.

## 2.0 ONBOARDING OF INSPECTION STAFF

Onboarding, also known as organizational socialization, is the process the Company uses to help new staff acquire the knowledge necessary to operate effectively as a representative of the Company. The focus of the onboarding process is to help new staff understand the Company's organizational structure, culture, expectations, and his or her expected roles and responsibilities.

Onboarding begins with sourcing staff that is qualified, competent, and committed. The purpose of Inspector training is not to train someone in how to become a welding Inspector, coating Inspector, or utility Inspector; Inspectors placed on Enbridge projects should already be experienced and qualified for the activities they are going to inspect. The Company utilizes several mechanisms to facilitate the onboarding process, which includes, but is not limited to: comprehensive training sessions, involvement of Construction upper management as new

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staff is acquired, Company/departmental vision and policy statements, and explanations of Company assets and organizational structure.

Onboarding is focused on throughout the project. Management at all levels of E&C assist with the onboarding process by purposely making the effort to create a culture of inclusion on the project, identify staff, and notify Construction when they believe staff is having difficulties adjusting to the Company environment. Through the onboarding process, staff should develop role clarity, knowledge of organizational culture, and existing Company/contract staff should develop a higher level of acceptance of the new staff members.

The onboarding process attempts to increase the levels of satisfaction of the new hires with the Company culture and their job duties/responsibilities, increase the level of commitment to the project by the new hires, decrease turnover of the new and existing staff, and increase performance of the new hires, existing staff, and Company.

Onboarding is an individual-specific process. The details of this process are beyond the scope of this document and are explained in QGTR-GUD-06 *Onboarding of Construction and Quality Management Staff*.


The onboarding of inspection staff includes, but is not limited to:

- Function descriptions
- Roles and responsibilities
- Communication process
- Inspector training slides
- Specifications for the project
- Inspection guidelines

### **3.0 INSPECTOR TRAINING SESSION TIME FRAMES**

Before an Inspector is allowed to inspect on the Right of Way or at a facility, he or she must attend an Inspector training session(s) and show comprehension of training. Members of the Construction department and the Quality Management department work together to setup Inspector training sessions.

Early in the first quarter of the year, training representatives from the field Construction Offices and the Quality Management department begin looking at number and time frames for Inspector training sessions based on project scopes and locations. During this period, the group looks at updates to the previous year's training content, topics for each of their Inspector training sessions, and potential guest speakers from the Houston office, vendors, or regulatory representatives.

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First, potential training dates for each of the areas are proposed, and potential guest speakers are notified of the dates and asked to respond with their interests and availability to speak at one or more of the training sessions.

### **3.1. Solicitation of Guest Speaker(s)**

Once the general time frame and the scope of training is known, the training representative from the Regional, or designate, contacts any guest speakers (and copies the training representative from the Quality Management department) about his/her availability to speak at a particular Inspector training session. The Field Construction Office will provide the potential guest speaker a topic that it would like for the guest speaker to cover, and see if the speaker has a potential slot open to do so. If the guest speaker does, then the Field Construction Office will inform the speaker, via email, of a proposed agenda at a later date. If the speaker is unable to speak, then the Field Construction Office will thank the speaker and proceed to creating an initial agenda.

### **3.2. Inspector Training Venue Location**

The Field Construction Office hosting the Inspector training session should have decided on a location for the training at least four weeks prior to the scheduled training date, in most cases. The list of items to take into consideration includes but is not limited to:


- Safety Precautions: ingress and egress, AEDs, etc.
- Duration of training in days
- Number of Inspectors
- Number of speakers/presenters
- Available nearby lodging
- Amenities such as PA systems and projectors

### **3.3. Preliminary Inspector Training Agenda**

Once a venue has been selected the preliminary training agenda is distributed to all of the presenters and speakers, the Construction Superintendent/Coordinator(s) for the projects sending Inspectors to the given training session, as well as the training representative from the Quality Management department. The preliminary agenda should be distributed at least three weeks prior to the scheduled training date. See section “4.0 Training Agenda” for agenda details.

### **3.4. Confirmation of Presenters**

Approximately two weeks prior to the scheduled training date, the field Construction Office hosting the training session should seek and receive a confirmation of the presenters’ availability. Although at times it may be difficult to get a confirmation two weeks before the training session, it is good practice from a professional/organizational perspective to seek a formal confirmation. When seeking confirmation from presenters, provide any updated

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agendas that reflect the date and allotted time frames. It is during this time period that a copy of the material the speaker/presenter plans to use should be made available. In many circumstances this will not be available, but it should be requested nevertheless. When the guest speaker/presenter submits the presentation material, it should be forwarded to Quality Management in order for it to be assigned a module number and hosted on the Construction SharePoint site.

### 3.5. Final Inspector Training Agenda

Approximately one week prior to the scheduled training date, the final agenda should be distributed to all the confirmed presenters and speakers, the Construction Superintendent/Coordinator(s) for the projects sending Inspectors to the given training sessions, the CCS for the project(s), as well as the training representative from the Quality Management department. From the final Inspector training agenda, an estimate of the number of attendees can be derived, and this can be used for logistical items such as seats, promotional items, and meals.

### 3.6. Post Training Revised Agenda

After the training sessions have been completed, a revised agenda should be completed and updated to the "Agendas" folder on the Construction SharePoint site under "Training." The revised agenda should include any modules that were not completed, guest lecture module numbers, or additional module numbers that were completed, but were not on the original agenda.


## 4.0 TRAINING AGENDA

Use form QFTR-FRM-02 *Spectra Energy Inspector Training Agenda* when sending out the agenda. Be sure to put the 911 address of the training venue. All people attending training should know the 911 address for safety reasons. Each training day should begin with a safety moment which includes egress directions, a review of the 911 address, and location phone numbers, as well as any venue-specific safety concerns. Each training day should have a morning breakfast/meet and greet.

When creating the agenda, allow for flexibility in the schedule as some topics will require slightly longer discussion with certain audiences, while other topics may require shorter discussion. In timing the agenda, and when executing the training session, it is important that the Inspectors not sit for longer than one hour and forty-five minutes at a time.

### 4.1. Agenda Adherence

A critical element of a professional training session is adherence to the agenda, in terms of both subjects presented as well as the time allocated. Going over one's allotted time is disrespectful to other presenters (who may be rushed) as well as the audience. This is especially true for those who may not be directly part of the project team, as they are often

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flying in on one day and leaving the next or even the same day. Asking them to move their presentations to later in the day or the next day can have a significant cost impact on the travel expense for that trip as well as disrupt other business they may need to attend to.

## 4.2. Grouping Presentations

Additionally, when creating an agenda, always keep in mind that the purpose of Inspector training is to prepare Inspectors to perform their inspection roles and responsibilities out on the ROW or at the site; therefore, priority should be given to the core modules. This is also consistent with the approach to provide quick track training sessions for Inspectors who come on the project after construction has started.

The suggested approach is to group presentations by core modules (starting with the Safety Core Module) followed by craft-specific technical presentations, followed by reporting requirements, and finally by non-technical presentations.

On the agenda, either the automatic form (which calculates durations) or the manual form can be used. Enter the **Start** and **End** times. Calculate the duration. Enter the topic, if the topic is a training module, enter the module name, and enter the module # in the **Module #** column. In the **Presenter** column, input the person(s) responsible for the topic.

Having Construction-specific modules on the first day of training, followed by guest presenters, safety, and contracts the following day typically works well as this allows guest presenters, if any, to travel on the first day of training. This is only a guideline, and is at the discretion of the field Construction Office.


Previous agendas can be found on the Construction SharePoint site for additional guidance on creating agendas.

<https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Forms/AllItems.aspx?RootFolder=%2Fcorp%2Fprojexec%2Fecteam%2FTraining%2Fagendas&FolderCTID=0x012000C3E10EA02AD40143BEA2BF5D5E380984&View={91DE0DD5-4889-4E1F-BD55-CBA03C40D112}&InitialTabId=Ribbon%2Edocument&VisibilityContext=WSSTabPersistence>

## 4.3. Dry Run

A dry run of the agenda should take place several days prior to the start of the training sessions. The level of depth and detail for the dry run depends in part on:

- Size of the project
- Number of modules/subjects on the agenda
- Number of presenters
- Number of new presenters

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A dry run helps ensure presenters and coordinators have a general meeting of the minds as to how the training session will be executed as well as any time issues that may have been missed during the agenda creation.

## 5.0 INSPECTOR TRAINING INFRASTRUCTURE

There are two primary groups involved in Inspector training, the Inspector Training Committee and the Inspector Training Team. The Inspector Training Committee is primarily involved in content development and conformance to standards and process.

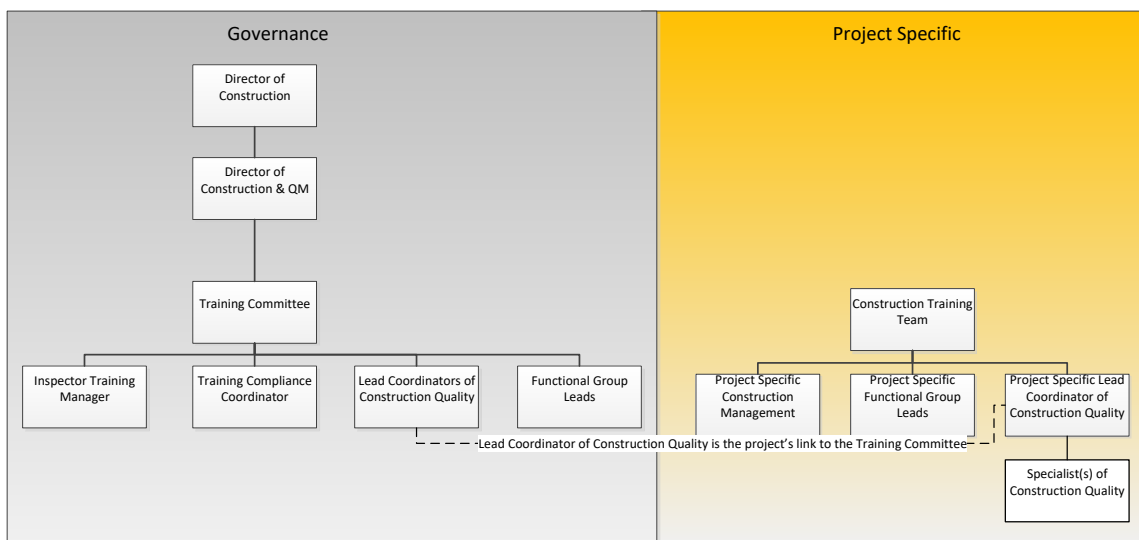



Figure 1: Inspector Training Infrastructure

### 5.1. Inspector Training Committee

The Inspector Training Committee is composed of a representative from each field Construction Office, a Project Manager of Construction and Quality Management, and a Manager of Construction and Quality Management. The Principal Project Manager of Construction and Quality Management acts as the Inspector Training Manager. Additionally, the Inspector Inspector Training Compliance Coordinator is part of the Inspector Training Committee and is responsible for ensuring training modules are in compliance with the guideline.

### 5.2. Inspector Training Team

The Inspector Training Team is primarily involved in the planning and execution of Inspector training sessions, see "Figure 1: Inspector Training Infrastructure" below for additional

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information. The Inspector Training Team composition changes from Inspector training to Inspector training, but will generally include at a minimum the following:

- Managers of Construction
- Superintendents of Construction
- Lead Coordinator of Construction Quality
- Specialist(s) of Construction Quality (SCQ)
- Functional Group Leads for:
  - Safety
  - Environmental
  - Contract Conformance

Superintendent(s)/Coordinator of Construction should attend the Inspector training sessions, and provide the welcome message, project scope, etc.


## 6.0 DEPLOYMENT OF TRAINING

Although actual execution of Inspector training sessions will vary from session to session, it is recommended that the SCQ take a lead role in the organization and execution of the training sessions for the following reasons:


- The SCQ will work more closely with the Inspectors on the project than any of the other training team members.
- The SCQ has dotted line responsibility in the Quality Management department, and all are well versed on current construction issues going on in all regions of the country.
- The SCQ is trained on the inspection training process by Quality Management.
- The SCQ can relieve the burden the Superintendent(s)/Coordinator(s) have in organizing and executing training, and allow them to focus on preconstruction activities.

The Area Manager of Construction has local authority to decide who will be responsible for leading an Inspector training session. In the event that an inexperienced leader is selected, Quality Management may pair that person(s) with a more experienced leader. This is especially true for Breakout Projects. (See [Breakout Projects](#) for more information). Once it is known who will be responsible for leading Inspector training for that field Construction Office, the deployment of training should generally happen as follows:

- **Prior to Training Day**
  - ◇ Scope of Training Established: All projects and the activities on those projects, to be covered in the training session, need to be determined. This takes into account expected project start dates and geographic location(s) when combining multiple projects. Wherever possible, training should be combined for multiple projects.

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- ◇ Solicitation of Guest Speakers: Soliciting guest speakers should occur as soon as possible to give possible speakers ample time to adjust their schedules, and for the training team to solicit alternative guest speakers if the first selections are not available.
- ◇ Venue Location: Location of the venue should depend upon factors identified in the scope.
- ◇ Preliminary Inspector Agenda: This draft agenda should have the topics that were identified in scoping the training session, along with the guest speakers.
- ◇ Confirmation of Presenters: Guest speakers and presenters need to be confirmed in order to communicate a clear understanding of subject and commitment.
- ◇ Final Inspector Agenda: The final agenda should be distributed to the training team prior to the Inspector training.
- ◇ Collection of Training Content: The Approved Modules are hosted on the Construction SharePoint site under “Training.”
  - ◆ Training content includes not only the slide decks, but attendance sheets, surveys, exams, or any other materials needed for the training. If the presentation material has not been received from the guest speaker/presenter, then the speaker/presenter should be contacted and a request made again for the material.
  - ◆ Electronic Media
    - All presentations and modules should be placed in a single folder. A copy should be made of the folder and stored on either flash media, or on another one of the training team’s computers.
  - ◆ Printed Materials
    - Any printing that is required should be completed prior to arriving at the venue if the venue is not a Company owned or leased location. Most hotels or banquet halls are going to have very limited printing capabilities. If the training has been planned well, then there should be ample time to print the materials from one of the field Construction Offices, or at a local print shop, and ship them to the venue. See “8.0 Inspector Training Materials” for additional guidance.
- ◇ Breakfast and Lunch: Generally, the field Construction Office will provide breakfast and lunch for the Inspector training. Although this is not a requirement, it tends to be good practice. This is especially the case for lunch, where if there are no options for

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lunch onsite, Inspectors and presenters will tend to travel off site for lunch. This increases the likelihood that they will return late and possibly delay the training or they will miss pieces of it. If breakfast or lunch is going to be provided, then it needs to be planned and coordinated. Specifics will vary from venue to venue; therefore it is important to check with the venue on its policy regarding food services. A venue may have a policy against outside food being catered in. It is also advisable to contact the venue to determine how much notice is required. Refer to “Final Inspector Training Agenda” for information on meal counts.

- **Dry Run**


- ◇ The Training Team shall schedule a dry run when any group outside of Construction wants to speak at Inspector Training. Typically in capital expansion projects, the scope of the projects are such that Inspector training sessions are well attended by not only Inspection, but Construction Management, Project Management, Project Controls, Stakeholder Outreach, among others. Maintenance capital projects are typically smaller and not as well attended by functional groups outside of Construction Management. The primary purpose of the dry run is to ensure that presenters are delivering the correct message for the audience. It also serves to remind presenters of the time periods for their presentations. In the event that a Contractor is asked to present a topic at the Inspector training, the Contractor must go through a dry run to ensure he is not conveying contradictory information.

- **External Attendees**


- ◇ Inspector training is intended to be an internal event with a specific focus and not a public forum for external parties such as contractors, vendors, and regulators to convey their information (See Note below for inspection providers). There are other avenues for this type of information to be conveyed to Enbridge. The presence of external attendees results in any presentations that are given while they are in the audience having to been sent through the Enbridge Corporate Communications Department.
- ◇ **\*NOTE\*** Representatives from the Company’s Approved Construction Inspection Service Providers, however, are encouraged to attend Inspector training (as long as they have at least one individual from their company in attendance at the training).
- ◇ In the event that a Project Team would like to invite an external party such as a Contractor to Inspector training, the Training Team needs to get documented permission from the Director of Construction and Quality Management. Additionally, the agenda must be setup so that the external party can be excused from the remainder of the Inspector training.

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- ◇ Approved Construction Inspection Service
- **Training Day**
  - ◇ Pre-meeting Preparation: The person responsible for executing the Inspector training, in most cases the SCQ, should arrive early to setup for the event and prep the room prior to training. If an experienced Office Clerk is available, then it is good practice to enlist them to assist with managing breakfast and lunch. The most common preparation issues include but are not limited to:
    - ◆ Projection: Either there is no projector, no power, or sound. If there is power, then often times the power is located in an area that makes reaching it a safety issue for the Company. To mitigate this, be sure to have the Presentation Tool Kit onsite. See “Inspector Presentation Tool Kit” for more information.
    - ◆ Meals: Generally this goes well, but when it doesn’t it can be very disruptive to the training session. To mitigate this, plan to have breakfast arrive well before the scheduled meet and greet time, and enlist the help of an Office Clerk or other trusted individual. Once training starts, the person hosting the training should not break from training in order to handle meal related issues.
  - ◇ Meet and Greet: Each training day should begin with a brief, informal meet and greet where Inspectors and presenters can get to meet one another over breakfast. This time can also be used as a time buffer for inspection staff and presenters who may be traveling in from remote locations.
  - ◇ Safety and Quality Moment: Each morning should begin with a safety discussion. If possible, on the first morning, a representative from the venue (especially if the venue is not on Company owned or leased property) should give the egress instructions as well as any other safety facility related information. The safety moment should include 911 address information/emergency numbers, and the egress instructions should include meet up location information. If there are any particularly risky or uncommon tasks on the project, those should be mentioned as well.
  - ◇ Welcome Statements: The Construction Superintendent(s)/Coordinator(s) should welcome everyone to the training session. The introduction should include why the Company is hosting Inspector training and the goals of Inspector training. If the Project Manager(s) is present then he or she should be invited to cover the project scope. If not, then the project scope should be given by the Superintendent/Coordinator.

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- ◇ Attendance Sheets: Once the welcome session starts, attendance sheets should be distributed. Assigning someone to be responsible for collection of the attendance sheets is recommended.
- ◇ Modules: Having finalized the presentation materials prior to the start of training should minimize looking for materials during the presentation.
- ◇ Review and Comments: At the end of each day of training it is important to build in some time for review. It is during this time that any evaluations that have not been scored are scored, and Inspectors who need to retake an evaluation retake it. This time can also be used as a buffer if some training sessions run over/under. This period should not be used as free time; instead its purpose is to solidify the understanding of the day's training information. When timeframes are tight, this final session can be combined with breakout sessions.
- ◇ Competency Evaluation: After each module, the facilitator or delegate should lead the Inspectors through completing the competency form for that module. See APPENDIX: VI Inspector Competency Evaluation Example for additional information.
- ◇ Cleanup Items: Final instructions for the evening, and any additional information not covered in the above sections should be completed here.
- **Post Training Day**
  - ◇ Revision of Agenda: Once training is completed a revision of the agenda should be completed. The revised agenda should include any changes to the agenda that took place during training. The revised agenda is uploaded to the "Agendas" folder under "Training" on the Construction SharePoint site.
  - ◇ Updating of Inspection Training Records: The written and electronic records need to be collected and stored according to the requirements set in the "Records" section under "Resource Requirements" in the Construction QMS.
  - ◇

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## 7.0 COMPETENCY EVALUATION:

Refer to section 0.8 Training and Competency and APPENDIX: VI Inspector Competency Evaluation Example for additional information.

## 8.0 INSPECTOR TRAINING MATERIALS

### 8.1. Inspector Presentation Tool Kit

Each field Construction Office should have at least one presentation kit reserved for Inspector training. Having this kit on site can mitigate many issues that might occur during Inspector training. If flying, then it is advisable to ship at least part of the kit to the venue. The following are recommended items in the tool kit:

- Projector—300 lumens or greater
- Presentation presenter/pointer—2: 1 main/1 backup
- Wireless microphone—1
- Computer speakers—30 watts or greater
- Batteries—enough for the presentation presenters and for wireless microphone
- Extension cord—25 feet (12 feet if flying)
- Surge protector—1 small port or greater.
- Network cable—25 feet
- Duct tape—1 small roll for taping cords


### 8.2. Printed Materials

Printed materials are a combination of paper materials that are obtained from corporate print services, third party printing services (for field offices), local printer resources, stickers, and corporate communication media.

#### 8.2.1. Inspector Materials

Printed materials provided to the inspector include but are not limited to:

- \*Inspector Reference Manual
- NDE Tech Booklet
- DOT Forms and Examples Booklet
- Media cards
- RESPECT cards
- Think Three for Safety
- Life Saving Rules
- Stop Work Authority
- Safety stickers (for hard hats)
  - ◇ Obtained from project Safety Lead
- Construction Compliance stickers (for hard hats)

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- ◇ Obtained from Lead Coordinator of Construction Quality
- Environmental stickers (for hard hats)
  - ◇ Obtained from the project Environmental Lead
- Environmental pocket guide

\*Note: The Inspector Reference Manual is often times printed by the Contract Conformance group. Coordinate Contract Conformance person assigned to the project on the manual.

### **8.2.2. Governance Materials**

Printed materials needed for governance and record keeping include, but are not limited to:

- ICOMPLY signature sheets
- Training attendance forms
- Training Competency forms

### **8.3. Thumb Drives**

Thumb drives with training content may be provided to the inspection staff at the project's discretion.

### **8.4. Inspection Kits**

Inspection kits should be at the inspector training venue prior to the training session. Prior to arriving on sites, kits shall have recertified/recalibrated. Additionally, the kit contents will have already been validated by a SME from Construction and Quality Management. Inspection kits will be provided at Inspector training by the CQM group. A chain of custody form will be signed by the Inspector and kept in the kit; a copy will be submitted to CQM.

## **9.0 SUBSEQUENT INSPECTORS – FAST TRACK SESSIONS**

### **9.1. Requirements**


All Inspectors, including Subsequent Inspectors, must attend the Required Minimum Training (see 0.1 "Policy Statement").

### **9.2. Challenges**

It is not normally possible for all Inspectors who will participate on a construction project to attend the initial training sessions. Inspectors leave a project for a variety of reasons and replacements are resourced. Those replacement Inspectors need to receive the Minimum Required Training modules prior to inspecting an active job site.

### **9.3. Risk Management**

Time is generally of the essence and there will not be time to bring in all of the resources involved in a normal Inspector training session for many of these Subsequent Inspectors (replacement, or late coming). There is a minimum cycle time duration for presenting the

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modules that are part of the Minimum Required Training. Additionally, it takes time to mobilize training resources (materials and Qualified Trainers) to training sites. As the number and duration of Minimum Required Training increases, the risk in either a delay in project work or that an Inspector does not receive the required training increases. Additionally, with the requirement that the Required Minimum Training be given by only Qualified Trainers appointed by the Functional Group Leads, the risk of the former scenarios only increases.

#### **9.3.1.1. *Risk Mitigation***

Without proper front end planning and timely communication, Construction can find itself in a difficult position as it relates to training.

##### **9.3.1.1.1. Front End Planning**

Field Construction Management must attempt to capture in its estimates the total time needed to onboard and Inspector. This includes but is not limited to:

- Mobilization of inspection staff
- Total number of Inspectors
- Total number of Inspector training sessions
- Realization that there will likely be Subsequent Inspectors

##### **9.3.1.1.2. Communication**

###### **9.3.1.1.2.1. *Pre-Construction Inspector Training***

The Lead Coordinator of Construction Quality is imbedded in the field Construction Office (or Project Office) and is part of the planning process. The Lead, as a normal part of his quality assurance activities, should review the project scope as well as inspection requirements for the project; through this process.

###### **9.3.1.1.2.2. *Subsequent Inspector Training***


Construction Management should inform the Lead Coordinator of Construction and Quality Management as soon as possible when there is the potential for a Subsequent Inspector to join the project. A delay in the process will likely result in not having Qualified Trainers available to deliver the Minimum Required Training; thus causing a delay to getting the Inspector in the field, or not training the Inspector (not training an Inspector is in direct conflict with the Company's policy of Safety first).

#### **9.4. Non-Required Training**

See 15.0 "Non-Required Training" for additional information.

### **10.0 TRAINING CONTENT**

Training development is a collaborative effort between the Construction department and the Quality Management department. Construction is the primary developer of training content for Inspector training. Quality Management ensures that the content meets the

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requirements of QMS and that the development and update processes are controlled. It is also responsible for identification of training gaps. Content passes through an approval process by the Inspector Training Committee. Once approved, the module is given an official module number and marked as “Approved” on the Construction SharePoint site, under “Approved Modules.”

## 10.1. Training Module Development

In the fourth quarter of the year, the Inspector Training Committee meets to review and update the current year’s training content for the upcoming construction season. Wherever possible, if there is a technical group or department-specific training, the committee should work with the Functional Group Lead in that group to develop the majority of the content for that department or technical group. Examples include, but are not limited to:

- Safety
- Environmental Construction Permitting
- Contract Conformance
- Metallurgical Services
- Administrative Services
- Pipeline Integrity
- Design
- Operational Compliance
- Ethics and Compliance (Corporate)


Construction and Quality Management will be required from time to time to develop new content in the absence of external department assistance. In those instances, the committee should seek input from any technical group/department for that content.

Quality Management is ultimately responsible for the final content of all modules.

Once the development of the module is complete and it has been approved by the committee, Quality Management will mark the module as being “Approved” and the module will appear on the “[Approved Modules](#)” list on the Construction SharePoint site.

### 10.1.1. Revision Process

Functional Group Leads will provide the Inspector Training Compliance Coordinator with the most current version of the modules under their span of control. The Inspector Training Compliance Coordinator will upload the module to the Approved Modules list. Only modules that have been submitted by the Functional Group Lead or delegate will be considered the approved version. If a module appears to have mistakes, or missing content, then the Functional Group Lead should be contacted in order for him to review the request for an update. Refer to “APPENDIX: III Role Roster for Inspector Training” for the most current list of personnel in those roles.

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### **10.1.2. Corporate Compliance**

Corporate compliance includes ICOMPLY and Code of Business Ethics (COBE), but is not a core module that must be given prior to an Inspector entering the ROW, compressor station site, or fabrication shop; but it is to be given to the Inspector within two weeks of his start date. Updated ICOMPLY materials can be obtained from the Ethics and Compliance group. See the “Ethics and Compliance” page on the Source for the most up to date contact information. As of this document, Connie Duroso is the primary contact for E&C to obtain these materials.

### **10.1.3. Training Module Naming**


Content is placed in what are called modules. Modules are given a unique module number much in the same manner a college course is given a unique course number. Modules have properties such as:

- Module name
- Module number
- Delivery method
- Owner
- Revision
- Module type
- \*Duration (in minutes)
- Year

See “APPENDIX: V Training Module Parameters” for a complete listing of parameters. \*Note: The “Duration” field should be used to assist in developing the agenda.

#### **10.1.3.1. Five Module Types:**

- **Core Modules:** These modules are standard modules that all Inspectors passing through inspection training must receive regardless of duration, or type, of project. Inspectors cannot opt out of core modules, nor can the field Construction Office opt out the Inspector. See “Required Core Modules” for specific module information.
- **Bolt-on Modules:** These modules may be used as additional training needed to support a particular project, or to provide additional training to a select audience on a given topic. Not all Inspectors will receive all bolt-on modules.
- **Breakout Sessions:** Breakout sessions are a free form type of module, and vary from one Inspector training session to the next. An important concept in the breakout session is the collection of feedback from Inspectors that can be used to improve other modules, or provide additional guidance for future breakout sessions.
- **Guest Lecture:** Guest lectures are presentations from the Houston office or from approved vendors. A lecture is included as a module as a mechanism to capture the information presented in the lecture for later reference, and as a standard that can be made available for subsequent training sessions.

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- External Modules: Those are modules that already have module numbers outside of Construction. Examples might include modules in LMS (I-Comply is an example; see I-COMPLY below for additional information).

#### **10.1.3.2. Modules are numbered as follows:**

##### **Function Abbreviation-Module Concept-Level of Module**

Example: CON-CORE-001 = Construction Core Module Introduction Level

Example: CON-CCS-100 = Construction Contract Conformance Level 100

Example: ENV-CORE-001 = Environmental Core Module Introduction Level

##### **10.1.3.2.1. Approved Function Abbreviations**

- CON: Construction
- ENG Engineering/Design
- ENV: Environmental
- SAF: Safety
- CORP: Corporate
- PRJM: Project Management
- PRJC: Project Controls
- PMS: Project Management Systems

##### **10.1.3.2.2. Module Concept Abbreviations**


Module concept abbreviations should not surpass four characters in length. The following list contains some of the commonly used concept abbreviations:

- CCS: Contract Conformance Training
- QMS Quality Management System
- SMP: Sampling
- FLG: Flagging
- MED: Media and Ambassador Training
- DOT: DOT forms and records

##### **10.1.3.2.3. Module Numbering**

Modules are numbered according to level of information.

- 000: Reserved for Breakout Sessions
- 001 to 099 Core Modules
- 100 to 199 Basic Application
- 200 to 299 Fundamental Application
- 300 to 399 Advanced Application
- 500 to 599 Subject Matter Expert Application

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- 900 to 999 Sequential Numbers for Lectures

#### 10.1.3.2.4. Module Suffixes

Modules may have a suffix appended to them for further delineation. Possible reasons include, but are not limited to: video, audio, or CB T versions of the module, multi-part modules, and alternate language modules.

Suffixes are attached in the following manner:

##### *10.1.3.2.4.1. Function Abbreviation-Module Concept-Level of Module-Suffix Abbreviation*

Example CON-CORE-001-V = Construction Core Module Introduction Level Video  
CON-CCS-100-C = Construction Contract Conformance Level 100 CBT

**\*NOTE\*** Module numbers assigned to lectures and external presentations can be assigned after the training session has been completed. See “Post Training Revised Agenda.”

Quality Management is responsible for assigning the module number, description, and other properties of the approved modules.

#### **10.1.4. File Naming Nomenclature**

In order to search for a module by name or by number, both need to be part of the file naming standard. The format for the file name for the module is as follows:

- Module Number – Module Name – YYYY

#### **Examples:**


- CON-CORE-001 - Construction Core - 2017.pptx
- CON-COAT-100 - Coating Inspection –Basic Application 1 - 2017.pptx
- CON-COAT-100 - Welding Inspection –Basic Application 1 - 2017.pptx
- SAFE-CORE-001 – Safety Core - 2017.pptx
- SAFE-CORE-002 – Safety Core TBD – 2017.pptx

The following should be noted:

- The word “module” should not appear in the title
- Module Name should be the primary title that appears on the PowerPoint presentation, not the sub-title
- ICOMPLY is an external module that is not in Construction

#### **10.1.5. Feedback to Engineering Construction Support Services on Content Development**

Content developed for instructor training should be made available to all E&C staff. The Inspector Training Committee will inform training specialists from Engineering and

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Construction Support Services at a minimum of once per year, normally in the 1<sup>st</sup> quarter of the year, about any additional content that has been developed.

## 10.2. Presentation Title Slide Requirements

Each title slide should contain the minimum required information:

- Module Number
- Module Name (Subtitles can be included if applicable)
- Revision Number
- Revision Date

Some examples are illustrated below.

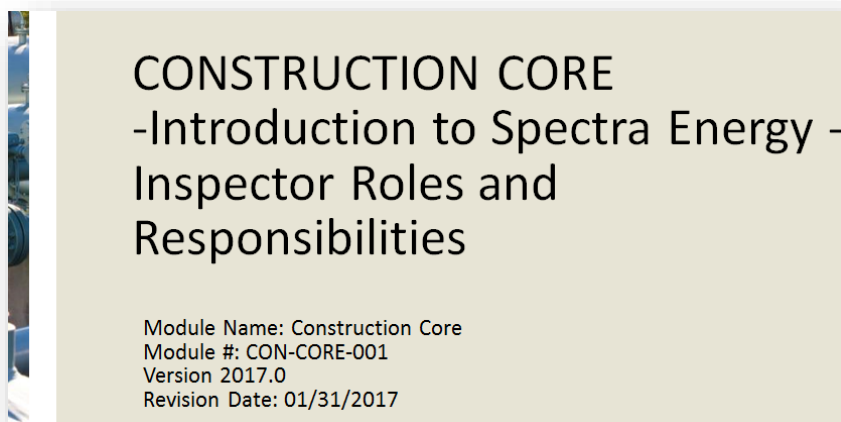



Figure 2: Example of a Construction and Quality Management Presentation

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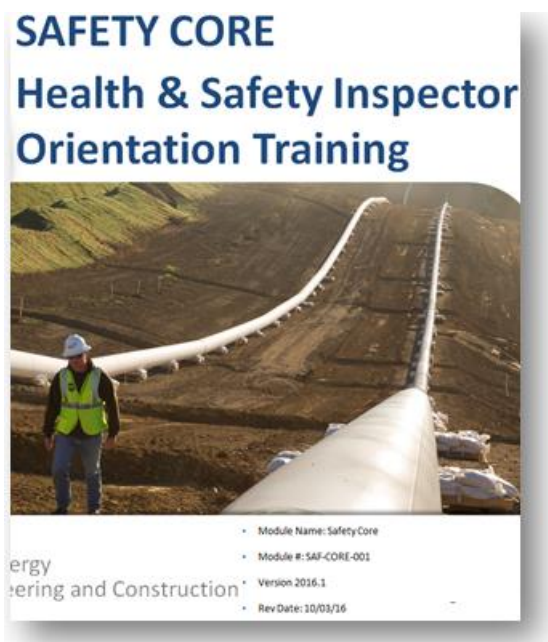


Figure 3: Example of a Functional Group Presentation

### 10.3. Discontinuation of Current Year Modules

During the fourth quarter transition period, where current year modules are updated for the next year's construction season, old modules are archived on the Construction SharePoint site for reference.

#### 10.3.1.1. End of Construction Season (Q4)


At the end of the construction season, a **COPY** of all modules in the <https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Modules/Current> "Current" training folder should be copied to the <https://extsites.spectraenergy.com/corp/projexec/ecteam/Archived Training/Past/> "Archived" folder. If there is not an existing folder for the year of training; create a folder following the nomenclature that is aligned with the existing folders. If unsure, contact the Principal Project Manager of Construction and Quality Management.

### 10.4. Updating Training Modules In SharePoint

After the modules have been copied to the Archived folder, then the proper procedure to follow is to:

#### **Step 1** Edit the module properties

Step 1.1. Remove the check box next to "Approved"

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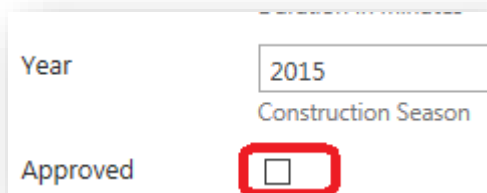


Figure 4: Removing "Approved" Checkbox in SharePoint

- Step 2** Check out the module
- Step 3** Mark the document with "Draft" on the cover slide. The word Draft should remain on the cover slide until the module has been approved
- Step 4** Check the module back in
- Step 5** Check out the module
- Step 6** Complete updates and remove "Draft" from the cover slide.
- Step 7** Check the module back in
- Step 8** Edit the "Properties" for the module
- Step 9** Updated the Revision (See Versioning Nomenclature below for additional information versions/revisions)

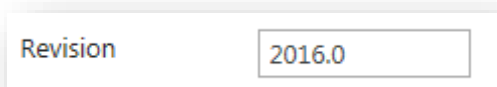


Figure 5: Add Revision to Module in SharePoint

- Step 9.1. Update the Year
- Step 9.2. Put a mark in the checkbox next to Approved

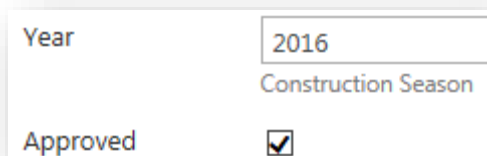



Figure 6: Update Year and Approved Checkbox in SharePoint

#### 10.4.1.1. Mid-Year Revisions

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If a module or modules need to be updated during the year (outside of the annual update cycle), then the process to make the updates is the same as the “End of the Construction Year” process, with the exception that only the updated modules have to be copied.

#### **10.4.1.2. Versioning Nomenclature**

It is important that the proper versioning of Approved Training Modules be maintained. Versioning provides a documented way to show evidence of what a particular Inspector was exposed to during a specific Inspector training session. This requirement often comes up as a part of a response to an audit by Audit Services, or when an incident takes place.


The versioning standard for Approved Training Modules is as follows: (Four digit year. Incremental version in whole numbers).

Version Nomenclature	Version Example	Comments
YYYY.#	2016.0	2016 base version
YYYY.#	2016.1	2016 rev 1 version
YYYY.#	2016.2	2016 rev 2 version
YYYY.#	2017.0	2017 base version

Table 4: Versioning Nomenclature Examples

#### **10.4.1.3. Content Changes**

Only members of the Inspector Training Committee who have been trained to perform updates to modules are permitted to change content in the Approved Modules folder.

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## 10.5. Approved Modules

Approved modules are located in the following location,

[https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Modules/Construction Inspection/](https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Modules/Construction%20Inspection/)

The Approved Modules repository contains all of the Minimum-Required Training modules as well as the Non-Required Training modules.

See “APPENDIX: IV How to Copy Approved Modules” for instructions on downloading approved modules to a thumb drive or USB stick.

## 11.0 PROJECT SPECIFIC MODULE MODIFICATIONS

### 11.1. Project Specific Additions

The Training Team may add project specific information such as WBS information and scope information into the approved modules. However, great care should be utilized not to change the intent of the modules or introduce contradictory information. The Training Team should contact the Inspector Training Manager with questions.

## 12.0 MODULE TYPES

### 12.1. Approved Modules


Approved Modules indicate the modules that are approved for used, but does not mean that they must all be given in every Inspector training session; for additional information see section 13.0 Minimum Required Training for additional information. Approved Modules have the following characteristics:

- Have been approved by the Functional Group Lead
- Are posted to the Construction and Quality Management SharePoint site under the Approved Modules list
  - ◊ Are marked as “Approved” in the metadata for the module
- Have the necessary document control information on the title slide (version, date, document number, and title)

Approved Modules can be broken down into Core modules and Bolt-on modules.

The most up to date list of Approved Modules can be found here:

<https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Forms/Approved%20Modules.aspx?RootFolder=%2Fcorp%2Fprojexec%2Fecteam%2FTraining%2FModules%2FConstruction%20Inspection#InplviewHash8eb523ec-339b-463c-9034-7d08c00a55eb=RootFolder%3D%252Fcorp%252Fprojexec%252Fecteam%252FTraining%252FModules%252FConstruction%2520Inspection-ShowInGrid%3DTrue>

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### **12.1.1. Required Core Modules**

Core modules represent training information that all Inspectors must receive prior to performing the function of inspection on the Right of Way (ROW), inside a facility, or at an offsite vendor/fabrication location. The Inspector Training Committee works in conjunction with other technical/functional groups on which modules are considered core. The Inspector Training Committee is responsible for maintaining the list of core modules. This document shall be considered the location where the list of core modules is maintained. The list of core modules is limited to the following:

- CON-CORE-001 Construction Core–Roles and Responsibilities
- SAF-CORE-001 Safety Core
- ENV-CORE-001 Environmental Core


***NOTE: Inspectors are not to be issued their inspection sticker until it can be documented that they have attended all of the above core modules! Office Clerks are not required to attend core training modules PRIOR to starting an assignment, but it is recommended they attend general Inspector training sessions. Office Clerks are trained by Specialist of Construction Quality to the information in the Office Clerk Handbook.***

### **12.1.2. Bolt-on Modules**

Bolt-on modules are designed to augment core modules. Not all bolt-on modules are used at every Inspector training. In fact, no project should ever have the need to use all of the bolt-on modules available. The bolt-on modules presented at Inspector training should be relevant to the project. Some bolt-on modules, for example, “Contract Conformance CON-CCS-100,” are good modules to show to all Inspectors at most Inspector trainings. However, if there is a module that covers in great detail the calculations of bend segmenting, that module should only be given to a few individuals. When limiting modules to certain groups of Inspectors, it is advisable to have another bolt-on module running at the same time. Executing two modules at the same time requires proper planning, and a strong team of presenters.

#### **12.1.2.1. Mandatory Modules**

Mandatory modules are craft-specific, bolt-on modules. Mandatory modules are not the same as core modules in that they are craft, activity, or scope specific. Mandatory modules are part of the Minimum Required Training.

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### 13.0 MINIMUM REQUIRED TRAINING


Minimum Required Training is **DIRECTLY** related to ensuring that construction startup activities are done in a manner that enhances public safety, personal safety, and security, while minimizing risk to personal and public health, and the environment, as well as keeping the Company operationally compliant. All Minimum Required Training Modules are Approved Modules, but not all Approved Modules are in the Minimum Required Training list.

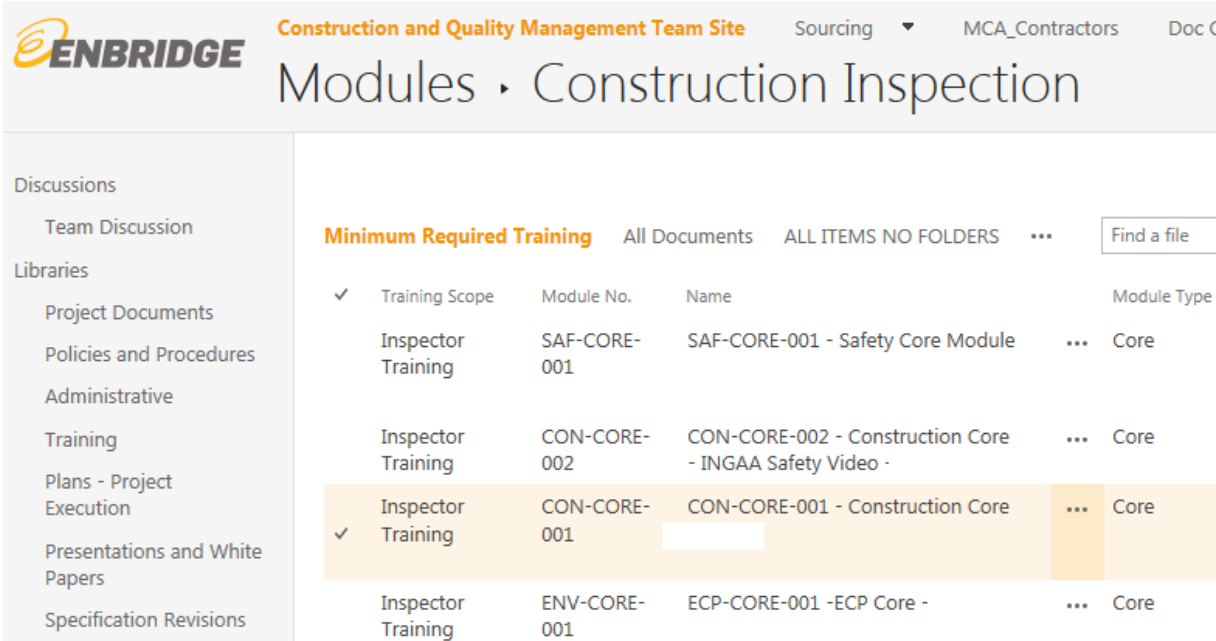
Minimum Required Training must be completed prior to placing an Inspector in the field to inspect. The Minimum Required Training includes all of the Core Modules, ICOMPLY, and the relevant craft-specific Mandatory Module. The current Minimum Required Training includes the following:

Module Number	Module Title and Sub-Title	Type	Comments	QC
<b>CON-CORE-001</b>	• Construction Core – Roles and Responsibilities	• Core	• All Inspectors must take	
<b>CON-CORE-002</b>	• Construction Core - INGAA Safety Video	• Core	• All Inspectors must take	
<b>SAF-CORE-001</b>	• Safety Core Health Safety Orientation	• Core	• All Inspectors must take	
<b>SAF-CORE-002</b>	• Safety Core - JSA	• Core	• All Inspectors must take	
<b>SAF-CORE-003</b>	• Safety Core – Accident Investigation Reporting	• Core	• All Inspectors must take	
<b>ENV-CORE-001</b>	• Environmental Core	• Core	• All Inspectors must take	
<b>CORP-COMP-100</b>	• ICOMPLY and COBE	• Bolton	• All Inspectors must take	
<b>CON-COAT-100</b>	• Coating Inspection	• Bolton	• Mandatory module for coating Inspectors only	
<b>CON-WELD-100</b>	• Welding Inspection	• Bolton	• Mandatory module for welding Inspectors only.	

Table 5: Minimum Required Training

“Table 5: Minimum Required Training” and the SharePoint view “[Minimum Required Training](#)” should mirror one another; with the former being the Source of Record. \*NOTE\* This page should be printed when preparing a training agenda in order to ensure all Minimum Required Training modules are included in the Inspector training session.

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**ENBRIDGE** Construction and Quality Management Team Site Sourcing MCA\_Contractors Doc C

## Modules ▸ Construction Inspection

Discussions  
Team Discussion

Libraries  
Project Documents  
Policies and Procedures  
Administrative  
Training  
Plans - Project Execution  
Presentations and White Papers  
Specification Revisions

**Minimum Required Training** All Documents ALL ITEMS NO FOLDERS ... Find a file

✓	Training Scope	Module No.	Name	Module Type
	Inspector Training	SAF-CORE-001	SAF-CORE-001 - Safety Core Module	Core
	Inspector Training	CON-CORE-002	CON-CORE-002 - Construction Core - INGAA Safety Video -	Core
✓	Inspector Training	CON-CORE-001	CON-CORE-001 - Construction Core	Core
	Inspector Training	ENV-CORE-001	ECP-CORE-001 -ECP Core -	Core

Figure 7: Minimum Required Training on SharePoint

## 14.0 TRAINING FREQUENCY

### 14.1. Minimum Training Frequency

The minimum frequency requirements for modules are captured in the metadata for the module in SharePoint unless otherwise specified. Inspectors who do not have a break in service working on the same project, where the duration of the assignment exceeds the minimum training frequency, are exempted from the minimum training frequency requirements for the following reasons:


- The modules are based off of the specifications included in the Contract
  - ◇ Modules are updated at a minimum of one time per year, training existing Inspectors working on a project may result in providing training that is contradictory to the specifications particular to that project.

### 14.2. Inspector Transfers

#### 14.2.1. Requirements

Inspectors who have been transferred from other projects are NOT REQUIRED to attend all of the Minimum Required Training if they have received training for the specific modules within the timeframe specified for the module (this is done on a module by module basis). If the Inspector has not received training on a specific module, the Inspector is only REQUIRED to take training on that module.

#### 14.2.2. Generally Accepted Practice

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The generally accepted practice is to onboard the Inspector to the project, which includes attending Inspector training. Construction Management and Construction and Quality Management have the authority to make this determination, not the Inspector.

## 15.0 NON-REQUIRED TRAINING

Non-Required Training is limited to information that is **NOT DIRECTLY** related to ensuring construction startup activities are done in a manner that enhances public safety, personal safety, and security while minimizing risk to personal and public health and the environment, as well as keeping the Company operationally compliant.

## 16.0 DELIVERY METHODS

### 16.1. Computer Based Training

Currently none of the core modules are available as part of computer-based training (CBT) or in video format. Construction and Quality Management continues to evaluate the use of CBT.

### 16.2. Video

Video is approved for non-core technical videos.

Below is a list of currently approved “named” modules that are delivered using video.

- CON-CORE-002 INGAA Safety Video
- CORP-COMPLY-001 ICOMPLY

### 16.3. Web Conferencing/Virtual Training


Web conferencing, the use of services such as Webex, Go To Meeting, Skype, and similar technologies requires email approval by the Inspector Training Manager (see APPENDIX: III Role Roster for Inspector Training for additional information) and it must be delivered by a trainer qualified to provide the training; see 0.1.1.4 Qualified Trainers for additional information.. Contact the Inspector Training Manager with questions on this subject.

## 17.0 INSPECTOR TRAINING RECORDS

Inspector training records are maintained in paper-based field project files and in an electronic database. Inspector training records are subject to audit by the Construction and Quality Management department as part of the Quality Management System. Audit findings will be shared with the Director of Construction, affected Managers of Construction, and the Director of Construction and Quality Management.

### 17.1. Field Project Files

A combination of printed hard copy agendas and CDs, with other training material, shall be placed in the “Training” folder in the project files. The training folder should include the following:

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- Printed copy of the agenda
- Printed copy of the attendance sheets for all days
- Printed copies of evaluations
- Compact disc
- Training agenda
- Attendance sheets
- Copies of all slide decks presented
- Copies of other information distributed to the inspection staff at training

It is important to keep records of materials presented at Inspector training as this serves to assist the group in providing detailed information to Audit Services in the event of an audit.

### 17.2. Electronic Database

Inspector training records are maintained on the Construction and Quality Management SharePoint site. There are three lists that must be maintained in order to keep Inspector training records current.

- QLTR-LOG-01 Training Session List
- QLTR-LOG-02 Training Inspectors List
- QLTR-LOG-03 Training Log List


It is recommended that the attendance sheet be compared with QLTR-LOG-02 *Training Inspectors List* to ensure that all of the attendees are in the electronic database. If an Inspector is not in the list, he must first be added to QLTR-LOG-02 *Training Inspector List*. After that, the QLTR-LOG-01 *Training Session List* can be populated. Then the QLTR-LOG-03 *Training Log List* can be populated with the list of Inspectors on the QLTR-LOG-02 *Training Inspectors List*. See [QWTR-WIN-01 Inspector Training Log Update Instructions](#) for specific instructions on updating the training logs.

### 17.3. Time Requirements

Training records shall be added to the log within ten business days of the last day of training for a given training session. As a part of QMS, adherence to the time requirement for updating Inspector training logs is an item that will be reviewed for compliance.

## 18.0 CORRECTIVE ACTIONS

Inspector training is often the mechanism by which corrective actions for audits or incidents are communicated to Inspectors for activities that either affect construction inspection or for activities that construction inspection have an effect on. It is extremely important that the Approved Modules be used and that training records are maintained. This is also an important reason why training must be as consistent as possible from session to session.

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## 19.0 BREAKOUT PROJECTS

Inspector training for Breakout Projects follows the same standard as training for all other E&C construction projects. On a Breakout Project, the local resources from the project will be paired with a Specialist of Construction Quality (SCQ) or Lead Coordinator from the Houston office, as well as a training representative from Quality Management out of the Houston office. The level of involvement in the execution of the training sessions by the Breakout Project training team will depend on its level of comfort with the entire training process. The optimal process is for the SCQ, assigned from one of the field Construction Offices, to assist with the training guides and the organization of training, and for a member of the Breakout Project to lead the execution of the training sessions.

Generally, a SCQ or Lead Coordinator will be assigned to a Breakout Project, and will either be sourced from the existing pool of SCQs, or will be sourced early enough in phase IV that they will be thoroughly trained as a SCQ, which includes instructions on the Inspector training process. *Note on EPCM/EPC type projects a Project Lead Coordinator will be assigned in Phase III.*

## 20.0 EXCEPTIONS

### 20.1. Subsequent Inspectors

No exemption will be granted to subsequent Inspectors for the Minimum Required Training.

### 20.2. Process Exceptions:

Any deviation to these guidelines or the training requirements specified in the Resource Requirements of the Construction Quality Management System requires the approval of the Director of Construction and Quality Management.


#### 20.2.1. Exceptions to Qualified Trainers

The list of exceptions to qualified trainers is listed below:

- None


## 21.0 FREQUENTLY ASKED QUESTIONS

Q/A No	Question/Answer
<b>Q1</b>	If the project has an emergency need for an Inspector due to another Inspector unexpectedly “dragging up”, can the Inspector start inspecting immediately as long as the project team plans to provide the Inspector the Minimum Required Training in the near future?
<b>A1</b>	No. the Director of Construction has stated that ALL Inspectors will be trained to the Minimum Required Training prior to placing them on the ROW or at a compressor station/meter station site.
<b>Q2</b>	A qualified representative from Safety is not available to train a late arriving Inspector. How does the project handle this? Can the Inspector be trained at a later date?

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<b>A2</b>	No. Safety has stated that only a qualified Safety representative may give Safety related training. If the Inspector has not completed the Minimum Required Training, then the Inspector may not inspect or go on the ROW or onto the job site. Construction Management should notify the local Safety Lead as soon as they know a new Inspector is being hired.
<b>Q3</b>	There is an Inspector working on another project in a different region; the work on the project is finishing up and the work on another project in a different region has already started; is the training that the inspector already received completely transferable to the new project?
<b>A3</b>	Yes, as long as it is within requirements for the timeframe expressed in the frequency section of the module (which can be found by looking at the metadata for the module on SharePoint). It should be noted that if the new project has additional training requirements due to a different scope of work; the Inspector is required to attend gap training sessions between what they have received and the Minimum Required Training. The typical process is for Inspectors transferring from region to region to attend the full inspector onboarding session if possible (see Subsequent Inspector Training Sessions).
<b>Q4</b>	In our area, the Superintendents setup Inspector Training; how is that process changing?
<b>A4</b>	It depends. The Superintendents of Construction are the primary face of the Company to the inspection staff; they should play a critical role in the planning and execution of Inspector training sessions; however this should not be done in isolation of the Lead Coordinator of Construction Quality. Ultimately, the Manager of Construction is responsible for ensuring that Inspector training is executed in accordance with this guideline; the Specialists of Construction Quality can help to ensure this is accomplished.
<b>Q5</b>	Can an inspector be trained remotely through web conferencing?
<b>A5</b>	

Table 6: Frequently Asked Questions (FAQs)

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## APPENDIX: I. REVISION LOG

Note: Minor revisions updates may be approved by the one of the process owners. Major revisions updates and periodic reviews specified require the approval of the personnel listed in section 0.9.6 Approval Requirements.

REVISION LOG				
Title/Section	Revision Notes	Rev #	Revised By	Rev Date
Previous Version	Base line doc before 2017 revisions	1.1	Jannah, Samaria	7/22/16
Revision Log	Added Revision log to document	1.11	Jannah, Samaria	1/16/17
ICOMPLY	Added ICOMPLY section to document	1.11	Jannah, Samaria	1/16/17
Core Modules	Added verbiage about applicability to Office Clerks	1.11	Jannah, Samaria	1/16/17
Minimum Required Training	Added this to simply what is absolutely required	1.12	Jannah, Samaria	1/22/17
Policy Statement	Added policy statement to ensure all Inspectors meet min required training.	1.12	Jannah, Samaria	1/22/17
SE Management Framework Info	Added Framework Standard 2.1 Process Requirements to the document	1.50	Jannah, Samaria	1/25/17
Frequently Asked Questions	Added new section for FAQ	1.50	Jannah, Samaria	1/25/17
Cover Paged	Added cover page	1.50	Jannah, Samaria	1/25/17
ICOMPLY	Changed to Corporate Compliance	1.51	Jannah, Samaria	02/06/17
File Naming	Added File naming nomenclature	1.51	Jannah, Samaria	02/06/17
Policy	Added exceptions	1.51	Jannah, Samaria	02/06/17
CDC	Replaced CDC with SCQ – Specialist of Construction Quality	1.51	Jannah, Samaria	02/06/17
Presentation Slides	Added section to provide examples for required information on presentation slides	1.51	Jannah, Samaria	02/06/17
All	Branded with Enbridge Logo and template	1.52	Jannah, Samaria	03/06/17
Training Materials	Added printed and inspection tools	1.52	Jannah, Samaria	03/06/17
Web Conferencing	Added language to clarify the use or not us of web conferencing	1.52	Jannah, Samaria	03/14/17
All	Updated headers and appendix in order to appear in TOC. Issue document for use	2.0	Jannah, Samaria	03/23/17
Training Compliance Coordinator	Update to Inspector Training Compliance Coordinator to be more specific and limit scope	2.01	Jannah, Samaria	04/11/2017
Virtual Training	Added exception information	2.02	Jannah, Samaria	10/16/2017



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Table 7: Revision Log


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## APPENDIX: II. REVIEW RECORD LOG

Reviews for this document are done to be completed as required by section 0.9.3 Communication and Distribution.

Annual Review	Revision Date	Revision Type	Approved By	Summary of Changes
No	07/01/2013	Initial Draft	Rick Crabtree	Initial issue of draft document
Yes	03/23/2017	Annual	Rick Crabtree	Version 2.0 with Enbridge branding and management system framework requirements

Table 8: Review Log


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### APPENDIX: III.      ROLE ROSTER FOR INSPECTOR TRAINING

*The table below defines the current E&C training roles (as they relate to Inspector training). This information is important for executing the roles and responsibilities. This table is reviewed annually and is included in this appendix as a quick reference. The most update version of this table is maintained on the Construction and Quality Management SharePoint site under Policies and Procedures.*

Training Role	Current Incumbent	Title
Inspector Training Compliance Coordinator	Dore, David	Project Lead Coordinator of Construction Quality
Inspector Training Committee Rep – East	Laney, Adam	Lead Coordinator of Construction Quality
Inspector Training Committee Rep – Central	Rossi, Jamie	Lead Coordinator of Construction Quality
Inspector Training Committee Rep – South, Storage, and Liquids	Gillispie, Kyle	Lead Coordinator of Construction Quality
Functional Group Lead- Safety	Landry, Rick	Lead Coordinator of Construction Quality
Functional Group Lead – Environmental	Doyle, Terry	Lead Coordinator of Construction Quality
Functional Group Lead – Contract Conformance	Rogers, Dana	Lead Coordinator of Construction Quality

Table 9: Role Roster for Inspector Training

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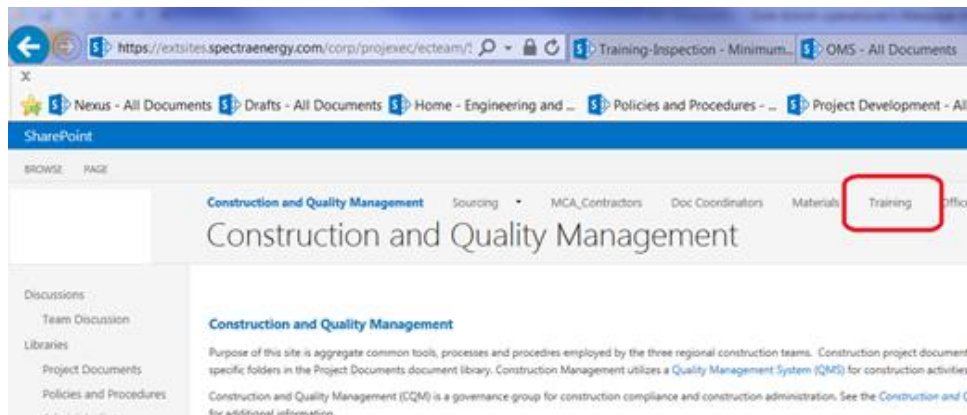
## APPENDIX: IV. HOW TO COPY APPROVED MODULES

### Step 1 Navigate to Approved Modules

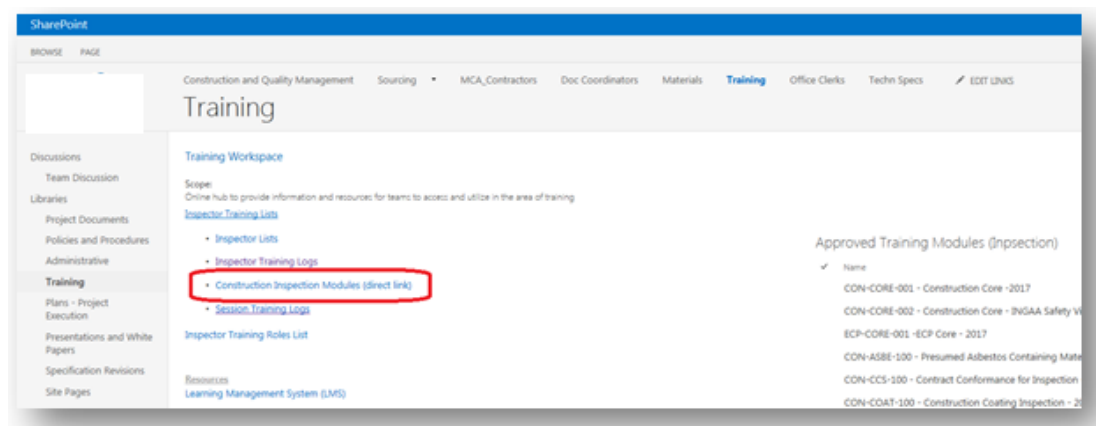
Begin by navigating to the Construction and Quality Management SharePoint site (direct link to training below)


<https://extsites.spectraenergy.com/corp/projexec/ecteam/Training/Forms/Standard%20%20Folder%20View.aspx?RootFolder=%2Fcorp%2Fprojexec%2Fecteam%2FTraining%2FModule%2FConstruction%20Inspection&FolderCTID=0x012000C3E10EA02AD40143BEA2BF5D5E380984&View=%7B84BAFF0B%2DF407%2D49A6%2D8A67%2DA38A8C3522E8%7D/>

### Step 2 Click on the “Training” Tab

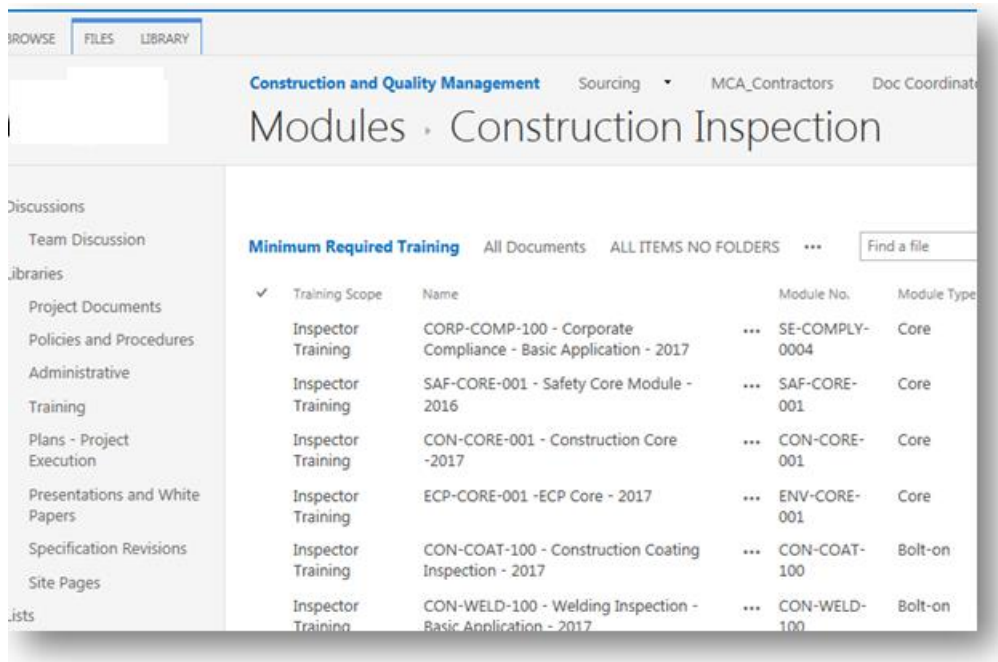


### Step 3 Click on “Construction Inspection Modules”



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**Step 4** The Minimum Required Training lists appears.

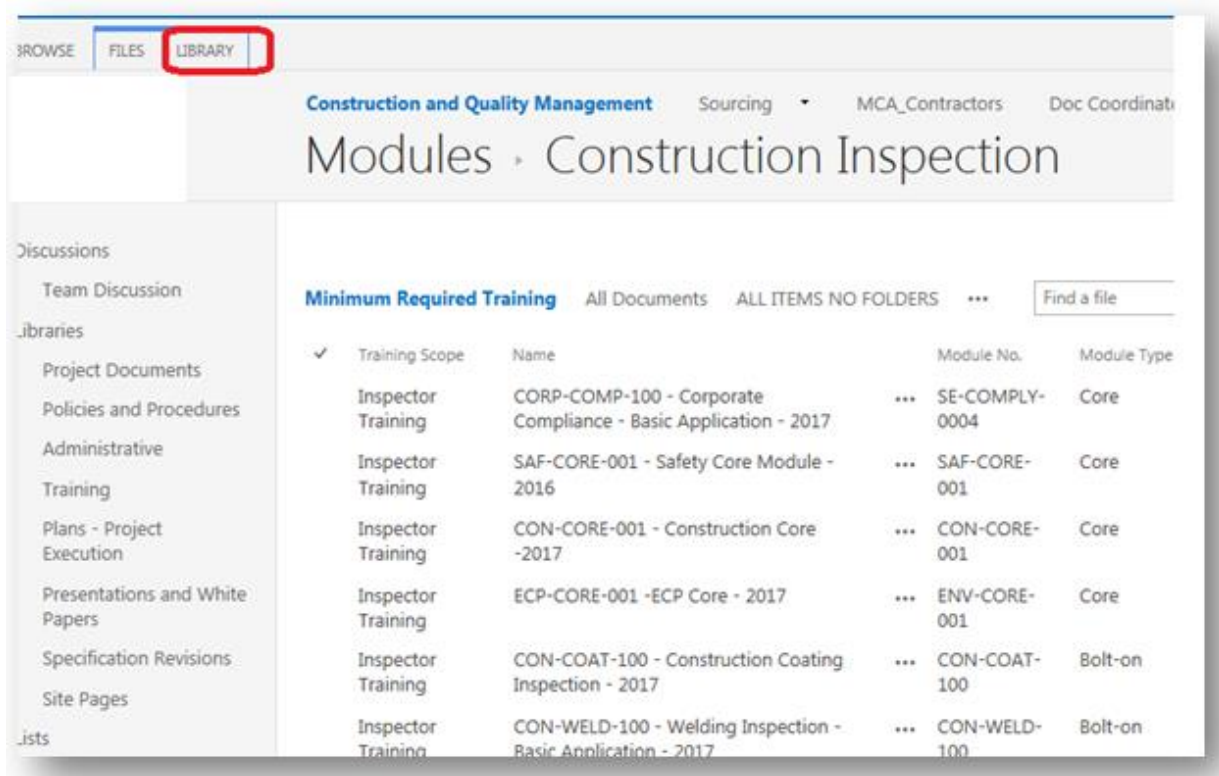


The screenshot shows the 'Construction and Quality Management' interface. The 'Modules' section is set to 'Construction Inspection'. The 'Minimum Required Training' tab is active, displaying a list of training modules. The list includes columns for Training Scope, Name, Module No., and Module Type. The training modules listed are:

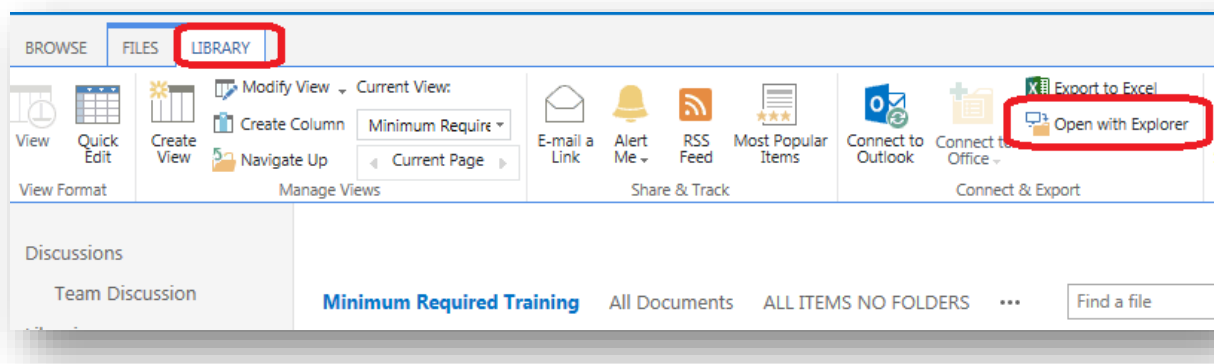
Training Scope	Name	Module No.	Module Type
Inspector Training	CORP-COMP-100 - Corporate Compliance - Basic Application - 2017	SE-COMPLY-0004	Core
Inspector Training	SAF-CORE-001 - Safety Core Module - 2016	SAF-CORE-001	Core
Inspector Training	CON-CORE-001 - Construction Core - 2017	CON-CORE-001	Core
Inspector Training	ECP-CORE-001 - ECP Core - 2017	ENV-CORE-001	Core
Inspector Training	CON-COAT-100 - Construction Coating Inspection - 2017	CON-COAT-100	Bolt-on
Inspector Training	CON-WELD-100 - Welding Inspection - Basic Application - 2017	CON-WELD-100	Bolt-on

**Step 5** Click on the "Library" tab


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**Step 6** Select the “Open with Explorer” link




**Step 6.1.** The Explorer view appears

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ecteam ▶ Training ▶ Modules ▶ Construction Inspection			Search Constructi
Name	Title	Date modified	
 CON-ASB-100 - As-Built and Weld Map ...	As-Built and Weld Map C...	2/6/2017 4:26 PM	
 CON-ASBE-100 - Presumed Asbestos Co...	Presumed Asbestos Conta...	2/6/2017 4:26 PM	
 CON-CCS-100 - Contract Conformance f...	Contract Conformance for...	2/6/2017 4:26 PM	
 CON-COAT-100 - Construction Coating I...	Coating Inspection - Basic...	2/6/2017 4:22 PM	
 CON-CORE-001 - Construction Core - 201...	Construction Core	2/6/2017 4:23 PM	
 CON-CORE-002 - Construction Core - IN...		2/6/2017 4:25 PM	
 CON-CQM-100 - Product Audit - Basic A...	Product Audit - Basic App...	2/6/2017 4:25 PM	
 CON-DOT-100 - DOT Documentation - B...	DOT Documentation - Bas...	2/6/2017 4:26 PM	
 CON-QMS-101 - Nonconformance Repor...	Nonconformance Report - ...	2/6/2017 4:24 PM	
 CON-TEST-100 - Pressure Testing – Basic ...	Pressure Tesing - Basic Ap...	2/6/2017 4:25 PM	
 CON-WELD-100 - Welding Inspection - B...	Welding Inspection - Basi...	2/6/2017 4:23 PM	
 CON-WELD-102-V - Bend Segmenting a...	Template 01	2/6/2017 4:29 PM	
 CORP-COMP-100 - Corporate Complianc...	Corporate Compliance	2/6/2017 4:23 PM	
 ECP-CORE-001 -ECP Core - 2017.pptx	Environmal Core	2/6/2017 4:22 PM	
 ENV-SMP-100 - Environmental Sampling ...	Construction Specification...	2/6/2017 3:05 PM	
 SAF-CORE-001 - Safety Core Module - 20...	Safety Core	2/6/2017 4:23 PM	

**Step 7** Copy; **DO NOT MOVE**, all of the files to a thumb drive, or locally to the C Drive.







Note: when the Explorer view appears, all of the Approved Modules appear. The Approved Modules list will always contain more entries than the Minimum Required Training list because some of the Approved Modules are optional based on project specifics. Refer to “Table 5: Minimum Required Training” for additional information.

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## APPENDIX: V. TRAINING MODULE PARAMETERS

Training-Inspection - CON-CORE-001 - Construction Core -2017....

EDIT

 Save
 Cancel
 Paste
 Cut
 Copy
 Delete Item

Commit
Clipboard
Actions

Name \*

Title

Description

Module Name   
Name of the Module without reference to year or version

Module No.   
Module Number for the training presentation

Revision

Owner

Delivery   
Medium of Delivery

Module Type  ▼

Duration   
Duration in minutes

Year   
Construction Season


Approved ☒

Frequency  ▼  
How often must an inspector take this training

Notes

Training Scope  ▼

Mandatory ☒  
Is the module a craft specific mandatory module. See QGTR-GUD-01 Training Guidelines for more info.

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## APPENDIX: VI. INSPECTOR COMPETENCY EVALUATION EXAMPLE

Use Form No: QFITRC-FRM- Inspector Training Competency Form.

Document # QFITRC-FRM-01 Form Name Inspector Training Competency Form

Rev Date 02/01/2017 Rev # 1.0

Page 1 of 3

### INSPECTOR TRAINING COMPETENCY FORM

*Instructions: Complete each section immediately after a module is given by circling the letter for the correct answer. Inspectors are responsible for keeping this form with them until all modules have been completed. The training lead for the project will collect the forms at the end of training. These forms will be stored in the "Competency" folder on the Construction and Quality Management SharePoint site as a singled scanned PDF.*

Project	Inspector Name	Date

Module No	Module Name
CON-CORE-001	Construction Core Module

- Inspectors have the authority to suspend work when:
  - The methods or procedures used by the Contractor are unsafe
  - The Chief Inspector grants it
  - A conflict with the Contract documents occurs
  - The Contractor has not taken a lunch break
  - Never
- What is the number one priority on this project?
  - On time
  - Safe job and job site
  - Under budget
  - Satisfy Contractor requirements
  - Maintain a clean ROW and or site
- Which of the following best describes where to find the Specifications and scope of work for this project?
  - Inspection Guidelines
  - Contractor Work Plan
  - Inspector Reference Manual
  - Function descriptions for your position
  - Pre-job meeting notes
- During construction, directives from Transmission personnel to the Contractor:
  - Are issued directly to the appropriate Contractor foreman
  - Must be approved by the construction Inspector on site
  - Take priority over any other work
  - Must be communicated through the Chief Inspector
  - Are okay as long as there is no extra cost
- If a media representative approaches you on the jobsite you should:
  - Do your best to answer any questions even if you don't have all of the information
  - Ignore them
  - Get the Contractor's foreman to answer any questions since they have the most up to date information
  - Record your interview on your phone just in case they misquote you
  - Politely explain Spectra Energy's media policy, which is Spectra Energy's media representative will contact them, and then forward their contact information to the Chief Inspector

Figure 8: Inspector Competency Evaluation Form Example

Records are stored as a single PDF in the following location

<https://extsites.spectraenergy.com/corp/projexec/ecteam/TrainingCompetency/Forms/AllItems.aspx>

Uncontrolled if Printed. Most current version located on Construction and Quality Management site at following location:

[https://extsites.spectraenergy.com/SSL/DavWWWRoot/corp/projexec/ecteam/Policies and Procedures/Guidelines\\_Const/QGTR-GUD-01.pdf](https://extsites.spectraenergy.com/SSL/DavWWWRoot/corp/projexec/ecteam/Policies and Procedures/Guidelines_Const/QGTR-GUD-01.pdf)