

CONSTRUCTION INSPECTIONS

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Construction Inspections



Construction Inspection Presentation

- I. PHMSA Expectations of the PSD
- II. NEW IAC 170 Rule
 - I. Construction Packets
- III. New Construction Inspection Form
- IV. General Construction Comments
- V. Questions



PHMSA CONSTRUCTION





PHMSA Requirements of the PSD

20%

- 20% of our inspections must now include construction site inspections.
- 17-20 visits annually per Engineer



IAC 170 5-3-2.5 Construction Packets



IAC 170 5-3-2.5 Construction Packets



Section 2.5

At a construction site, the operator shall maintain on-site or have access to the following documentation and provide it to the division upon request:

- **Maps or drawings of the project, including both existing and proposed facility information**
- **Information regarding type, size, and length of pip and appurtenances to be used or the installation**
- **Information sufficient to establish that the operator or its contractor appropriately notified Indiana 811 of the construction.**

IAC 170 5-3-2.5 Construction Packets



- **As-Build drawings of the construction project for any section of the facilities place in service or facilities installed**
- **Installation location of valves and pertinent information to include but not be limited to:**
 - Drawings with measurements
 - Types of valves; or
 - Manufacturer of valves
- **Construction scope of work, which may include:**
 - A project overview, with a brief statement describing the purpose of the project; or
 - A project timeline, with the anticipated duration of the project, and proposed state date if known.

IAC 170 5-3-2.5 Construction Packets



- **Requirements and records for proposed and actual pressure tests, including maximum allowable operating pressure (MAOP) requirements.**
- **Evidence that corrosion control impacts have been reviewed**
- **Upon request by the division, the operator shall provide evidence that the operator is complying with its distribution integrity management program (DIMP) plan in accordance with gaining information over time through normal activities conducted on the pipeline.**

New Construction Inspection Form



New Construction Inspection Form



Inspected Items

- **Work Order Packet Information**
- **General Construction**
- **Service Line Installation**
- **Steel/Plastic Main Installation**
- **Welding**
- **Corrosion**
- **Pressure Testing**
- **Operator Qualification Section**



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Inspected Items

W/O Packet

Work Order # _____

Written Plan Available Drawings Available Underground Facilities Located
CP Data Piggable? Design Pressure Calculations

Joining Method _____ Materials _____
Test Pressure _____ Test Medium _____ Duration _____
Boring Plans _____ As-Built Made _____ Depth/Cover _____
NOP: _____ MAOP: _____

Indiana 811 Locate Numbers:

Inspection Site Specific Locate Number:

Materials

Pipe Identified in Plan: Coating per Plan:
Valves per Plan: Fittings per Plan:
Materials Inspected at Jobsite by Operator:

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General Construction Items

General Construction

Description	Y	N	N/A	N/O
Directional Boring Procedures Followed				
Ditch Location follows written plan				
Changes from the written plan recorded				
Pipe installed to minimize stress				
Pipe installed as to protect it from underground structures				
Field Bends				
Anchors and supports installed				
Backfill Material and Method gives support to Pipe				
Backfill does not damage pipe or coating				
Valves installed for Control or Emergency				
Valve Box Supported				
Valve setting in accessible locations				



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Main Line Installation

Steel Pipe Installation

N/A

49 C.F.R §	MATERIALS SPECIFICATIONS				
192.55	Manufacturing standard & grade:				
	OD:				
	Wall thickness:				
	Wt. #/fc:				
	type longitudinal weld:				
	SMYS:				
	Minimum joint length:				
192.55(a)	Does the steel pipe meet one of the API or ASTM Listed Specifications?	YES:		NO:	
	Marking of materials	S	U	N/A	N/O
192.63(a)	(a) Are pipe, valves, and fittings properly marked for identification?				
192.63(c)	(c) Were pipe valves and fittings marked with other than field die stamping? If so, the die must have blunt/rounded edges that will minimize stress concentrations.				



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Welding Items

49 C.F.R §	WELD INSPECTIONS and NONDESTRUCTIVE TESTING REQUIREMENTS				
192.241	Inspection and test of welds	S	U	N/A	N/O
	Are visual inspections of the welds being conducted?				
	Who inspected the welds?				
192.243	Nondestructive testing (Transmission Only)	S	U	N/A	N/O
	(a) Is a detailed written NDT procedure established and qualified?				
	(b) Are there records to qualify procedures?				
	(c) Is the radiographer trained and qualified? (Level II or better)				
192.243(d)	Are the following percentages of each days field butt welds, randomly selected by the operator, nondestructively tested:	S	U	N/A	N/O
	10% in Class 1 locations.				
	15% in Class 2 locations				
	100% in Class 3 and 4 locations, river crossings, within railroad or public highway ROW's, tunnels, bridges, overhead road crossings: however, if impracticable may test not less than 90%.				
	100% at pipeline tie-ins.				
192.243 (e)	Is a sample of each welder's work for each day nondestructively tested? (see code for exceptions)				
192.243 (f)	Do the radiograph records and daily reports show:				
	Number of welds made.				



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Corrosion Items

49 C.F.R §	CORROSION REQUIREMENTS	S	U	N/A	N/O
192.455(a)	External corrosion control: buried or submerged pipelines installed after July 31, 1971.				
	(1) What kind of coating is on the pipeline? Does the pipeline coating appear to be in satisfactory condition:				
	(2) What kind of cathodic protection system protects the pipeline? <i>Galvanic Anodes:</i> <i>Impressed Current:</i> <i>Pipe to Soil readings:</i> Is the P/S reading satisfactory? <i>Are the locations of new anodes recorded?</i>				
192.461 (c)	External corrosion control: Protective coating Is the external protective coating inspected (by jeeping , etc.) just prior to lowering the pipe into the ditch?				
	Has Coating Damage detrimental to effective corrosion control been repaired?				
	If Jeeping; When was the equipment last calibrated: Voltage Setting: Is the equipment properly set for the coating thickness?				
192.461 (e)	Are precautions being taken to minimize damage to the coating during boring, driving or other similar methods?				
192.467(f)	If the pipeline is in close proximity to potential sources of fault currents (electrical transmission tower footings, ground cables, etc. or lightning), does it have protection against such damage?				

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Pressure Testing Items

192.517(a)	Records: Do the test records include the following:	S	U	N/A	N/O
	Operator's name, name of operator's employee responsible for making the test, and the name of the test company used.				
	Test medium used:				
	Test pressure:				
	Test duration:				
	Pressure recording charts, or other record of pressure readings				
	Elevation variations, whenever significant for the particular test.				
	Leaks and failures noted and their disposition.				



New Construction Inspection Form

OQ Items

Operator Qualifications

Name of Individual	Covered Task	Date Qualified	Recognize AOC's	Correct Performance	Supervised if Not Qualified?
		___/___/___	YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> Name: _____
		___/___/___	YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> Name: _____
		___/___/___	YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> Name: _____
		___/___/___	YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> Name: _____

General Construction Comments



General Construction Comments



- **This is NOT an IOSHA Inspection.**
 - Areas that may overlap would be where IOSHA standards are covered under the Operator's Procedures.
- **We are NOT there to interfere with construction.**
 - Request the Work Order Packet
 - *Will review and document as needed*
 - Will observe construction
 - *May request*
 - *information on calibration of tools/instruments*
 - *OQ's of employees performing covered tasks*
- **What happens next?**
 - A brief exit interview will be conducted to discuss findings
 - Any concerns or probable violations will be documented and provided to the Operator

QUESTIONS?

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INDIANA UTILITY REGULATORY COMMISSION

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