



# MINIMUM QUALITY CONTROL PLAN FOR NUCLEAR GAUGE COMPACTION TESTING

(Attach additional sheets as needed)

ECMS No. \_\_\_\_\_, State Route (S.R.) \_\_\_\_\_, Section \_\_\_\_\_, County \_\_\_\_\_

## I. ORGANIZATIONAL CHART

<u>Personnel</u>	<u>Full Name and Phone Number</u>	<u>Responsibilities</u>
A. Company Representative	_____	Oversees entire project
B. Project Superintendent	_____	Oversees fill construction operations
C. Project Foreman	_____	Oversees placement and compaction of material
D. Certified Nuclear Gauge Operator*	_____	Performs QC and acceptance compaction testing as specified in Pub 408, Sec. 206.3(a)
Operators Certification No. _____		Expiration Date _____
E. Compaction Control	_____	Technical & Emergency contact Supervisor
F. Radiation Safety Officer (RSO)	_____	Emergency Contact
G. PADEP Phone number	_____	Emergency Notification

\*If the Nuclear Gauge Operator is a 3rd party contractor, please provide the full company contact information below. Please use Section VI of this form to list alternative and/or additional Certified Nuclear Gauge Contractors and Operators that will perform QC testing on this project.

Company Name \_\_\_\_\_ Office Phone Number \_\_\_\_\_

Address \_\_\_\_\_

## II. NUCLEAR GAUGE INFORMATION

Type	Model No.	Calibration Date

**III. MATERIAL INFORMATION**

Material Class	Dry Density, pcf	Optimum Moisture, %	Proctor Test Date

**IV. EQUIPMENT LIST**

**MANUFACTURER**

**QUANTITY**

***A sufficient quantity and type of rollers and/or compaction equipment must be available and used in accordance with Pub 408, Section 206.3(b).***

Pad Foot Roller \_\_\_\_\_

Smooth Drum Vibratory Roller \_\_\_\_\_

Other (please specify below) \_\_\_\_\_

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**V. COMPACTION TESTING PLAN**

1. Nuclear gauge compaction testing will be performed as specified in Pub 408, Section 206.3(a).
2. The frequency of the QC testing will be determined by the Contractor; however, at a minimum, the frequency must meet the requirements as indicated in Pub 408, Section 206.3(a)2, Table A.
3. All compaction test results will be recorded on Form TR-4276A located in PTM 402.

Fill in the QC Test Frequency table, as applicable, and list all other compaction testing criteria specific to this project only:

QC Test Frequency			
Material	Embankment or Fill	Subgrade*	Pipe Backfill
Start-up Frequency	___ QC test(s) per lift for each _____ square yards placed; minimum ___ tests per lift per day.	___ QC test(s) per lift for each _____ square yards placed; minimum ___ tests per lift per day.	For every pipe run conduct ___ QC test(s) for every _____ cubic yards of pipe backfill; minimum ___ tests per lift per day.
Production Frequency	___ QC test(s) per lift for each _____ square yards placed; minimum ___ tests per lift per day.	___ QC test(s) per lift for each _____ square yards placed; minimum ___ tests per lift per day.	For every pipe run conduct ___ QC test(s) for every _____ cubic yards of pipe backfill; minimum ___ tests per lift per day.

\*Subgrade consists of the top three feet of the material immediately below the pavement section subbase.

Additional Requirements and Remarks:

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**VI. ALTERNATIVE NUCLEAR GAUGE CONTRACTORS AND/OR OPERATOR(S)**

List all other Nuclear Gauge Contractors and Operators that will operate a Nuclear Gauge on this project.

Company Name

Address

Office Phone Number

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Nuclear Gauge Operator(s)

Certification Number & Exp. Date

Phone Number

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Radiation Safety Officer and Phone Number: \_\_\_\_\_

**NUCLEAR GAUGE INFORMATION**

Type	Model No.	Calibration Date

*Attach additional sheets as necessary*

**VII. AMENDMENTS**

Any amendment to the QC Plan must be presented to the Department Representative as per Pub 408, Section 206.3(a)2. If amendments are agreed to by both the Company Representative (\_\_\_\_\_) and the Department Representative, the QC Plan can be amended by strike out and replacement followed by signatures in initial form. A description of the change and reason for amendment must be included on the approved amended QC Plan.

**VIII. PROBLEM RESOLUTION**

If any problems or disputes relating to placement and/or compaction arise, they should first be directed to the Project Foreman (\_\_\_\_\_). If results are not satisfactory, the next responsible person is the Project Superintendent (\_\_\_\_\_). If the problem is still not resolved, it should then be directed to the Company Representative (\_\_\_\_\_).

If there are any problems related to Department requests or procedures including deficiencies or variances either from the contract specifications or conditions that may have a detrimental effect, they will be reported to the Department Representative for documentation, and will be conveyed to the Assistant Construction Engineer for action or future reference if premature failure occurs.

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**Submitted By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Print/Sign

**Reviewed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Print/Sign