NCTCOG Clean Construction Contract Language

Diesel-powered "Construction and Mining Equipment" contributes approximately 23 tons of nitrogen oxides (NO_X) per day in the Dallas-Fort Worth (DFW) ozone nonattainment area, or approximately eight percent of all ozone-forming NO_X in this area.

To help reduce emissions from this sector, **NCTCOG staff developed template Clean Construction Contract Language that could be incorporated into public works construction contracts as a strategy to improve air quality.** The contract language is intended to increase the use of the cleanest available construction equipment and establish best operational practices.

Over the past several years, NCTCOG Transportation staff have collaborated with NCTCOG Environment and Development staff to include this clean construction contract language into the latest revision of the NCTCOG-issued Public Works Construction Standards North Central Texas. This language was presented for review by the working groups who drafted this latest revision, as well as the NCTCOG Public Works Council.

The language was approved and included as Item 110, Air Quality Requirement for Equipment, in the final version of the Public Works Construction Standards North Central Texas, Fifth Edition, which was approved by the NCTCOG Executive Board in October 2017.

An excerpt of these construction standards is attached, which includes the template contract language and supporting forms. **NCTCOG encourages local governments to include this language in construction contracts as an air quality measure.**

A full copy of the Public Works Construction Standards North Central Texas, Fifth Edition is available for purchase at http://store2.nctcog.org/NCTCOG/product/MANUALS/ENV101.html.

ITEM 110. AIR QUALITY REQUIREMENT FOR EQUIPMENT

As of 2016, ten (10) counties in North Central Texas have been designated by the EPA as being nonattainment for the pollutant ozone, and additional counties are expected to be designated in the near future. As a result, development of an air quality plan, known as the State Implementation Plan (SIP), is required for all nonattainment areas in order to demonstrate how ozone will be reduced to levels compliant with EPA standards. The SIP for the Dallas-Fort Worth nonattainment area includes programs to implement control strategies to all emission sources, including non-road construction equipment sources. To support these efforts, air quality requirements for equipment are applicable to the Contract.

110.1. EQUIPMENT REQUIREMENTS

All construction equipment being used to perform work on the Contract shall meet EPA emissions standards of Tier 3 or equivalent, or cleaner. Model Form A.14. Schedule for Phase-In of Tier 1-Tier 4 Non-Road Engines is included in Appendix A. Compliance may be achieved through the use of equipment powered by an EPA-certified engine, through engine repowers, or through the use of retrofits which have been verified by the EPA and/or California Air Resources Board. A list of available retrofits is available online at EPA's website "Verified Technologies List for Clean Diesel."

Equipment that meets one or more of the following conditions may be exempt from these requirements:

(1) Equipment powered by an engine that is less than or equal to ten (10) years old.
(2) Equipment that must be used to fulfill use or reporting requirements for a grant program or other clean air initiative. Documentation of such obligations must be submitted to OWNER for verification.
(3) Equipment that is designated as low-use equipment, which is defined as any piece of construction equipment which is used for less than ten (10) hours per week on a single public works contract. A Low-Use Exemption Weekly Reporting Form will be required for all equipment for which this exemption is claimed. Model Form A.15. Low-Use Exemption Weekly Reporting Form is included in Appendix A.
(4) Equipment that is being used to address a critical or emergency public works need, including, but not limited to, broken water mains or sanitary sewer lines. This exemption is limited to work performed in a situation in which the procurement of construction services is performed on an emergency basis, as provided for by State law.

110.2. OPERATIONAL REQUIREMENTS

All diesel fuel used to perform work on the public works contract shall be Ultra-Low Sulfur Diesel (ULSD) fuel which also complies with Texas Low Emission Diesel (TxLED) program requirements. This may include TxLED-compliant Biodiesel blends.

The CONTRACTOR shall limit idling of equipment to no more than five (5) minutes, unless the idling is applicable to one or more of the following exceptions:

(1) is being used for emergency response purposes;
(2) is idling as a necessary component of mechanical operation, maintenance, or diagnostic purposes; or
(3) is idling for the health or safety of the equipment operator.

To the greatest extent possible, CONTRACTOR shall stage equipment away from, and minimize operation near, sensitive receptors including, but not limited to, fresh air intakes, hospitals, schools, licensed day care facilities, and residences.

110.3. REPORTING TO OWNER

On or before the day construction activity commences, the CONTRACTOR shall submit to the OWNER an inventory report containing identifying data for each piece of equipment to be used on the worksite. A form for submitting such information will be provided by the OWNER. Model Form A.16. Contract Equipment Inventory is included in Appendix A. This inventory may be used by the OWNER or INSPECTOR to conduct site inspections and/or verify compliance with specification elements.

If additional equipment is brought on-site after construction begins, the CONTRACTOR shall provide this same inventory information to the OWNER for the new equipment on or before the day it begins work on-site.

Reports shall be provided for all equipment used on-site.

110.4. ENFORCEMENT

All construction equipment used on the job site is subject to inspection by the OWNER at random. CONTRACTOR is responsible for ensuring that all SUBCONTRACTORS meet the requirements of this specification.

The provisions of this specification shall be enforced as established in the Terms and Conditions of the Contract. If the provisions of this specification are not met, the OWNER may declare the CONTRACTOR to be in default of the contract.

Form A.14.

Reference Item 110. Air Quality Requirement for Equipment for use.

Schedule for Phase-In of Tier 1 - Tier 4 Non-Road Engines

Year	Horse Power and KiloWatt Engine Size Group							
	HP	25-49	50-74	75-99	100-174	175-299	300-599	600-750	750+
	KW	19-37	38-55	56-74	75-130	131-223	224-447	448-560	560+
	1995	T0	T0	T0	T0	T0	T0	T0	T0
	1996	T0	T0	T0	T0	T1	T1	T1	T0
	1997	T0	T0	T0	T1	T1	T1	T1	T0
	1998	T0	T1	T1	T1	T1	T1	T1	T0
	1999	T1	T1	T1	T1	T1	T1	T1	T0
	2000	T1	T1	T1	T1	T1	T1	T1	T1
	2001	T1	T1	T1	T1	T1	T2	T1	T1
	2002	T1	T1	T1	T1	T1	T2	T2	T1
	2003	T1	T1	T1	T2	T2	T2	T2	T1
	2004	T2	T2	T2	T2	T2	T2	T2	T1
	2005	T2	T2	T2	T2	T2	T2	T2	T1
	2006	T2	T2	T2	T2	T3	T3	T3	T2
	2007	T2	T2	T2	T3	T3	T3	T3	T2
	2008	T4i	•T3 •T4i (option 1)	T3	T3	T3	T3	T3	T2
	2009	T4i	•T3 •T4i (option 1)	T3	T3	T3	T3	T3	T2
	2010	T4i	•T3 •T4i (option 1)	T3	T3	T3	T3	T3	T2
	2011	T4i	•T3 •T4i (option 1)	T3	T3	T4i	T4i	T4i	T4i
	2012	T4i	•T3 •T4i (option 1) •T4i (option 2)	T4i	T4i	T4i	T4i	T4i	T4i
	2013	T4	T4	T4i	T4i	T4i	T4i	T4i	T4i
	2014	T4	T4	T4i	T4i	T4	T4	T4	T4i
	2015	T4	T4	T4	T4	T4	T4	T4	T4
	2016	T4	T4	T4	T4	T4	T4	T4	T4
	2017	T4	T4	T4	T4	T4	T4	T4	T4
	2018	T4	T4	T4	T4	T4	T4	T4	T4
	2019	T4	T4	T4	T4	T4	T4	T4	T4
	2020	T4	T4	T4	T4	T4	T4	T4	T4

TT4i= Tier 4 interim

Note: as an alternative to introducing the required percentage of Tier 4 compliant engines, manufactures may verify all their engines to an alternative NOx limit in each model year during the phase-in period.

T4 option 1 = Manufacture's selecting Tier 4 Option 1 will be meeting Tier 4 standards

T4 option 2 = Manufacture's selecting Tier 4 Option 2 must meet Tier 3 standards in the indicated model years

Form A.15.

Reference Item 110. Air Quality Requirement for Equipment for use.

[Jurisdiction] **Clean Construction Specification**

Low-Use Exemption Weekly Reporting Form

If any low-use exemptions are being claimed for equipment in use on a on a Contract in which the Clean Construction Specification is in place, this form must be updated and provided to the ***[jurisdiction]*** Representative on a weekly basis for the duration of the Contract. The form shall be made available to the Representative upon request.

If low-use exemptions are being claimed for equipment owned and/or operated by subcontractors, it must also be included in the project reporting. Each company's equipment should be submitted on a separate form.

1. Contract: _____

2. Company/Organization Name: _____

3. Week Start Date: _____ **Week End Date:** _____

4. Usage Log: Complete the table below for each piece of equipment which is designated as low-use equipment. Add rows or make additional copies as necessary.

Equipment Serial Number *(last 5 digits)*	**Date Work Begins On-Site**	**Hour Meter Reading at Start of Work**	**Date Equipment Taken Offsite**	**Hour Meter Reading When Taken Offsite**
Example 3	*March 1, 2010*	*250*	*March 3, 2010*	*255*

Form A.16.

Reference Item 110. Air Quality Requirement for Equipment for use.

[Jurisdiction] Clean Construction Specification

Contract Equipment Inventory

This form must be completed and presented to the ***[jurisdiction]*** Representative on or before the day construction activity commences. If any additional equipment is brought on-site after construction begins, an additional form must be submitted to the Representative on or before the day the additional equipment begins work.

Equipment owned and/or operated by subcontractors must also be included in the project reporting. Each company's equipment should be submitted on separate forms.

This form will be retained by the Representative and may be used to conduct occasional on-site inspections and/or verify compliance with the ***[jurisdiction]*** Clean Construction Specification.

1. Contract: _____

2. Company/Organization Name: _____

3. Did your company/organization have to purchase new equipment or upgrade existing equipment in order to comply with the Clean Construction Specification?
(Check all that apply)
_____ Yes, purchased new equipment
_____ Yes, repowered existing engines to a cleaner standard
_____ Yes, retrofitted existing equipment
_____ Yes, rented equipment to comply with specification
_____ No action necessary, already had enough compliant equipment in fleet

4. Complete the table below for all equipment in use on the public works contract. Add additional rows/pages as necessary.

Equipment Serial Number *(last five digits)*	**Type**	**Engine Model Year**	**Horse-power**	**Retrofit Make/ Model** *(if applicable)*	**Claiming Low-Use Exemption?**[1] *(Complete Item 5 for each unit marked "yes")*	**Claiming Usage or Reporting Requirement Exemption?** *(Complete Item 6 for each unit marked "yes")*
Example 1	*Excavator*	*2007*	*46*	*N/A*	*N/A (compliant)*	*N/A (compliant)*
Example 2	*Wheel Loader*	*1997*	*124*	*N/A*	*No*	*Yes*
Example 3	*Trencher*	*1992*	*56*	*N/A*	*Yes*	*No*

[1] *Note that additional reporting/documentation will be required throughout the project using the Clean Construction Specification Low-Use Exemption Reporting Form.*

Form A.16.

5. Low-Use Exemption: Complete the table below for each piece of equipment which is designated as low-use equipment. Add rows or make additional copies as necessary.

Equipment Serial Number *(last five digits)*	**Estimated Hours of Use per Week** *(on this job only)*	**Hour Meter Reading at Start of Job**	**Explanation/Description**
Example 3	*7*	*250*	*Specialized equipment*

6. Use/Reporting Requirements Exemption: Complete the table below for each piece of equipment for which an exemption is being claimed based upon usage or reporting requirements associated with a grant program or other clean air initiative. Add rows or make additional copies as necessary.

Equipment Serial Number *(last five digits)*	**Funding Agency**	**Grant Program/Clean Air Initiative**	**Explanation of Use/Reporting Requirements**
Example 2	*TCEQ*	*TERP*	*Must use at least 1500 hours/year through 2014*