

NORTH CAROLINA DIVISION OF AIR QUALITY		Region: Fayetteville Regional Office County: Cumberland NC Facility ID: 2600102 Inspector's Name: Robert Hayden Date of Last Inspection: 02/22/2011 Compliance Code: 3 / Compliance - inspection	
Air Permit Review – Renewal consolidated with two significant modifications			
Permit Issue Date: July XX, 2011			
Facility Data		Permit Applicability (this application only)	
Applicant (Facility's Name): HQ XVIII ABN Corps & Fort Bragg		SIP: 15A 2D .0503, 2D .0515, 2D .0516, 2D .0521 2D .0958, 2D .1111, 2Q .0513 and 2Q .0317 of 2D .0530	
Facility Address: HQ XVIII ABN Corps & Fort Bragg Director of Public Works Fort Bragg, NC 28310		NSPS: Subpart III NESHAP: Subpart GG, Subpart ZZZZ PSD: N/A PSD Avoidance: NOx NC Toxics: Facility-wide modeling required 112(r): N/A Other: N/A	
SIC: 9711 / National Security NAICS: 92811 / National Security			
Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			
Contact Data		Application Data	
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Consultant: URS Group Inc. Contact: Leslie Pearce Phone: W: 461-1471 C: 696-8050 email: Leslie_Pearce@URSCorp.com			
Review Engineer: Booker Pullen Regional Engineer: Robert Hayden		Comments / Recommendations:	
Review Engineer's Signature: _____		Issue: 04379T35 Permit Issue Date: July XX, 2011 Permit Expiration Date: June 30, 2016	
Begin Date: November 16, 2010			

I. Introduction:

The Fort Bragg Military Base is located at Building 3-1333 Butner Road, Cumberland County, Fort Bragg, North Carolina. Application No. 2600102.10C was received by the Division of Air Quality (DAQ) on August 31, 2010 and was considered complete on that date. Application No. 2600102.10D was received by the Fayetteville Regional Office on December 10, 2010 and considered complete on that date. Application 2600102.11A was received on April 29, 2011 and requested that the processing schedule for application 2600102.10D be changed from a 15A NCAC 2D .0501(c)(2) to 15A NCAC 2Q .0501(c)(1). Applications 2600102.10D and 2600102.11A were consolidated with 2600102.10C and will be processed as a renewal. These applications will go through the 30-day public notice and the EPA 45-day review period prior to being signed.

II. Purpose of application (2600102.10C):

A. Renewal of permit No. 04379. Permit will be issued as revision No. T35.

III. Purpose of application (2600102.11A):

A. Change the processing schedule of 2600102.10D from a two-step Significant Modification to a one step Significant Modification and include the second step of previous revision T33 (Application 2600102.10B) in this public notice and 45 Day EPA review period.

The modifications that were included in the previous revision (T33) are as follows.

1. Equipment Removal From Permit

Table 1: Summary of Proposed Equipment Removals and Changes Permit ID Building Description Reason for Removal

ID No.	Building	Description	Reason for Removal
ES-01B	D-3529	CMA Heat Plant	These five boilers are being removed as part of equipment upgrades and are being replaced by three new boilers (ES-01CMA, ES-02CMA, ES-03CMA).
ES-02B	D-3529	CMA Heat Plant	
ES-03B	D-3529	CMA Heat Plant	
ES-04B	D-3529	CMA Heat Plant	
ES-05B	D-3529	CMA Heat Plant	
ES-13B	4-2441	14.7 mmBtu/hr Boiler	These two boilers are being removed as part of equipment upgrades and are being replaced by five new boilers, rated at 2.34 mmBtu/hr each.
ES-14B	4-2441	14.7 mmBtu/hr Boiler	
IES-01LS	POTW	Lime Storage Silo	Plant is being shut down.
IES-01PD	Various	Parts Degreasers, 257 units located Post wide	Duplicate source; these parts washers are permitted under other existing IDs.
IES-01PO	H-3441	Printing Operations, Special Ops Print Shop	This facility has been removed / demolished.
IES-02AB	2-3717	Abrasive Blasting, Old TMP	This building and surrounding area will be demolished in July 2010.
IES-02LS	WWTP	Lime Storage Silo	Powdered lime has been replaced by a liquid equivalent; the storage silos are no longer in use.
IES-02PD3	Y-4808	Parts Washers at MMD	Duplicate source; these parts washers are permitted under other existing IDs.
IES-04PO	H-3441	Four Print Presses	This facility has been removed / demolished.
IES-08PD38	Various	IT Parts Washers	Duplicate source; these parts washers are permitted under other existing IDs.
IES-09PD6	Various	Clarus Parts Washers	Duplicate source; these parts washers are permitted under other existing IDs.
IES-2405	2-2405	IES-04WO	Duplicate source; this source is permitted under another existing ID.
IES-02PO	8-3710	Printing Operation Main Post Print Shop	Printing operation removed. Replaced with dry toner copy machines (8/5/2010 Amendment)
IES-01SP	8-2105	Screen Printing	Building was removed. (8/5/2010 Amendment)
IES-03PO	J-1756	Printing Operation	Changed to digital printing (8/5/2010 Amendment)
IES-02WO	Y-4804	Woodworking Operation	Exhausts vent inside the building (8/5/2010 Amendment)
IES-05WO	O-3735	Woodworking Operation	Exhausts vent inside the building (8/5/2010 Amendment)

2. Peak Shaving Generator Modification:

Fort Bragg Army Post is requesting the following changes to its PSD Peak Shaving Generator Group (refer to Permit No. 04379T31; Section 2.2.G., Page 52):

- Re-permit an existing generator (IES-7G) as ES-18PSG and return it to the peak shaving group.
- Correct an administrative error in kW rating for ES-04PSG from 355 kW to 500 kW.
- Re-evaluate the limit on operating hours for each engine in the PSD peak shaving system.

This group of peak shaving generators was originally permitted in Permit application No.04379T26. The group was funded as part of one project and Fort Bragg elected to take a permit limit for PSD avoidance. Since that time, various requests have been approved to remove several of the peak shaving generators (ES-09PSG, ES-14PSG, ES-15PSG, and ES-17PSG) from this group. These units were either converted to emergency use or had a change of ownership. When these units were removed, the original PSD limits were never re-evaluated against PSD thresholds for NOx. As such, the current group listed in Permit No. 04379T31 is well below the NOx limit of 44.44 ton/yr when all 13 units run at their maximum allowable rate of 250 hr/yr.

B. Send Permit revision T33 (Application 2600102.10B) through the second step of a Significant Modification. (continued)

2. Peak Shaving Generator Modification: Continued

One peak shaving generator (currently permitted as IES-7G) in this group was removed because it was determined it was only needed for emergency use. After the unit was removed from the PSD peak shaving avoidance group, it had a catastrophic failure. Fort Bragg Army Post replaced the broken unit with an equivalent unit. The unit that failed was a 410 kW unit. The equivalent replacement unit was 455 kW, the only viable unit available at the time. Therefore, although the current permit lists this unit as a 410 kW unit, it is actually 455 kW.

- a. Fort Bragg Army Post has since decided that they would like to again operate this unit in peak shaving mode (455 kW // IES-7G). As such, Fort Bragg Army Post is requesting that this unit be moved back into this PSD peak shaving group as Unit ES-18PSG. The unit originally had been part of the group and Fort Bragg Army Post currently has the administrative procedures in place to track this unit accurately in accordance with the PSD avoidance permit limits.

DAQ Response: The power rating of emergency generator IES-7G will be administratively corrected to 455 kW but it will not be re-permitted as a part of the existing PSD peak shaving group.

- b. Fort Bragg Army Post is requesting that unit ES-04PSG be increased from 350 kW to 500 kW. In a recent field visit to this unit, environmental personnel at Fort Bragg Army Post discovered that the unit was actually rated for 500 kW. Fort Bragg Army Post believes this discrepancy was a result of administrative error. As shown in Appendix B41, increasing the kW rating of this unit does not violate the NO_x permit limit of 44.44 ton/yr.

DAQ Response: The power rating for ES-04PSG will be administratively changed from 350 kW to 500 kW. The AP-42 emission factor for engines less than 600 hp (447 kW) 0.031 lbs NO_x/hp-hour. The AP-42 emission factor for engines 600 hp (447 kW) and greater is 0.024 lbs NO_x/hp-hour. The potential NO_x goes down in the larger engines. This unit is currently a part of the peak shaving group of generators.

- c. Finally, Fort Bragg Army Post is requesting that the allowable annual operating hours for each unit be increased from 250 hr/yr to 344 hr/yr. At this annual requested operating limit, emissions for the PSD Avoidance group are just below the 44.44 ton/yr NO_x limit.

DAQ Response: This request shall not be granted. The original PSD permit modification calculated the hours of operation (250 hours per year per engine while peak shaving) for each of the original seventeen emergency/peak shaving generators in the PSD Permit (revision T21, issued August 20, 2001) for permit revision number T21. It has been explained several times to Fort Bragg representative that in order to change the hours of operation in the PSD condition, a new PSD BACT Analysis would have to be performed to evaluate the incremental cost and the \$\$/ton of pollutant removed by appropriate control devices using the new operation hours.

3. Addition of Boilers and Heaters (less than 10 million Btu per hour heat input)

As part of on-going facility upgrades, Fort Bragg Army Post is requesting the addition of 30 external combustion boilers, 4 hot water heaters, and 2 process heaters at various locations. As shown in Appendices B9 – B21 of the application, all 36 of these units meet the definition of “insignificant activities because of size or production rate” in accordance with 15A NCAC 02Q .0503 (8). Additionally, the 30 proposed boilers and 4 hot water heaters are “insignificant activities because of category” in accordance with 15A NCAC 02Q .0503 (7)(d).

It is important to note that these boilers are funded separately under a variety of on-going projects at the Post and therefore are evaluated individually as different project, and are paid for out of different funds as appropriated by Congress, with the exception of the five 2.34 mmBtu/hr natural gas fired boilers at 4-2441 (discussed in Section 3.2.1 of the application).

- B. Send Permit revision T33 (Application 2600102.10B) through the second step of a Significant Modification.
(continued)

Accordingly, Fort Bragg Army Post is requesting that these 36 units be added to the insignificant activities list under the existing Permit ID IES-00B. It is also requested that the description for this group identification be changed to read: “Numerous insignificant (due to category, size, or production rate) natural gas and/or No.2 fuel oil fired external combustion sources.”

DAQ Response: Since this modification was received before the toxics rules were revised (effective date = July 10, 2010) to remove the toxic air pollution review and modeling exemption for combustion sources, these sources will be placed into the permit as insignificant activities (ID No. IES-00B) and included in the table that is attached to the cover letter. The DAQ will include a requirement for Fort Bragg to perform a facility wide toxic air pollutant review for all toxic air pollutants from the combustion of unadulterated fuels at the facility.

Table 2: Summary of natural gas-fired boilers and process heater additions less than 10 mmBtu per hour heat input:

ID No.	Building/Description	Source Description	Project/Fund #
IES-00B	Warehouse Complex C (Howell Street)	0.2 mmBtu/hr natural gas boiler	# PN62801
IES-00B	Warehouse Complex B (Howell Street)	0.3 mmBtu/hr natural gas boiler	
IES-00B	Warehouse Complex B (Howell Street)	0.3 mmBtu/hr natural gas boiler	
IES-00B	Warehouse Complex A (Howell Street)	0.5 mmBtu/hr natural gas boiler	
IES-00B	Warehouse Complex A (Howell Street)	0.5 mmBtu/hr natural gas boiler	
IES-00B	C-4124	0.75 mmBtu/hr natural gas boiler	# PN58491
IES-00B	C-4124	0.75 mmBtu/hr natural gas boiler	
IES-00B	C-4322	0.75 mmBtu/hr natural gas boiler	
IES-00B	C-4322	0.75 mmBtu/hr natural gas boiler	
IES-00B	C-4322	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4322	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4622	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4622	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4626	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4626	1.0 mmBtu/hr natural gas boiler	
IES-00B	C-4124	1.0 mmBtu/hr natural gas water htr.	
IES-00B	C-4124	1.0 mmBtu/hr natural gas water htr.	
IES-00B	C-6937	1.5 mmBtu/hr natural gas water htr.	
IES-00B	C-6983	1.5 mmBtu/hr natural gas water htr.	
IES-00B	D-3229	1.25 mmBtu/hr natural gas boiler	
IES-00B	D-3229	1.25 mmBtu/hr natural gas boiler	
IES-00B	Black Jack & Log Base Charlie Streets	1.77 mmBtu/hr natural gas boiler	
IES-00B	D-3229	2.0 mmBtu/hr natural gas boiler	
IES-00B	D-3229	2.0 mmBtu/hr natural gas boiler	
IES-00B	D-3229	2.0 mmBtu/hr natural gas boiler	
IES-00B	D-3229	2.0 mmBtu/hr natural gas boiler	
IES-00B	D-3229	2.0 mmBtu/hr natural gas boiler	
IES-00B	4-2441	2.34 mmBtu/hr natural gas boiler	Same Fund #, two Project #s
IES-00B	4-2441	2.34 mmBtu/hr natural gas boiler	
IES-00B	4-2441	2.34 mmBtu/hr natural gas boiler	# FA70050-8P # FA40001-7P
IES-00B	4-2441	2.34 mmBtu/hr natural gas boiler	
IES-00B	PN-66444	3.0 mmBtu/hr natural gas boiler	# PN66444
IES-00B	Y-4808	3.25 mmBtu/hr natural gas process htr.	# OA20033-8P
IES-00B	Y-4808	3.25 mmu/hr natural gas process htr.	

Purpose of Application 2600102.10B: Continued

Table 2: Summary of natural gas-fired boilers and process heater additions less than 10 mmBtu per hour heat input:

ID No.	Building/Description	Source Description	Project/ Funding
IES-00B	B-1529 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	Fund # PN64446 (4 th Brigade Combat Team Complex)
IES-00B	B-1529 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1331 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1331 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1931 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1931 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1932 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1932 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-2131 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-2131 (Boiler)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1732 (Hot water htr)	0.9 mmBtu per hour heat input, 8/5/2010 amendment	Fund # PN64446 (4 th Brigade Combat Team Complex)
IES-00B	B-1529 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1529 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1331 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1331 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1931 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1931 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1932 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-1932 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-2131 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	
IES-00B	B-2131 (Hot water htr)	1.53 mmBtu per hour heat input, 8/5/2010 amendment	

Add boilers greater than 10 million Btu per hour heat input

ID No.	Building/Description	Source Description	Funding #
ES-01CMA	D-3529 (CMA Heat Plant) *	41 mmBtu per hour heat input each, No. 2 fuel oil 42 mmBtu per hour heat input each, natural gas with Low NOx burners, and flue gas recirculation	Same Fund #, two Project #s # FA70050-8P # FA40001-7P
ES-02CMA	D-3529 (CMA Heat Plant) *		
ES-03CMA	D-3529 (CMA Heat Plant) *		

* Same Funding but done from same fund as the five small boilers in Building 4-2441

4. Addition of Internal Combustion Engines:

As part of on-going facility upgrades, Fort Bragg Army Post is requesting the addition of 26 diesel fired internal combustion emergency use generators at various locations. Additionally, Fort Bragg Army Post is requesting the addition of 1 brass deformer machine (internal combustion diesel engine) at the Ammo Supply Point. As shown in Appendices B24 – B38 of the application, 24 of these units meet the definition of “Insignificant activities because of size or production rate” in accordance with 15A NCAC 02Q .0503 (8) and two do not. It is important to note that these units are funded separately under a variety of on-going projects at the Post and therefore are evaluated individually.

4. Addition of Internal Combustion Engines: Continued

Table 2

ID No.	Building/Description	Source Description	Funding #
ES-87G	PN-66444	800 kW diesel emergency generator	# PN66444 includes 3 mmBtu per hour boiler
ES-88G	PN-66443	750 kW diesel emergency generator	# PN66443
IES-87G	O-1900-L	350 kW diesel emergency generator	-----
IES-88G	3-1650	180 kW diesel emergency generator	SC00016-9p
IES-89G	O-190-33	200 kW diesel emergency generator	# PN65266
IES-90G	O-9074	200 kW diesel emergency generator	# PN77498
IES-91G	3-3135	80 kW diesel emergency generator	Existing units
IES-93G	DASR	100 kW diesel emergency generator	# PT00014-9P
IES-94G	ACP- Longstreet	250 kW diesel emergency generator	# F10018-2P
IES-95G	ACP- Randolph	100 kW diesel emergency generator	# F100014-2P
IES-96G	ACP-Chicken	100 kW diesel emergency generator	# F100021-2P
IES-97G	ACP-Honeycutt	100 kW diesel emergency generator	
IES-99G	M-37	60 kW diesel emergency generator	# PN26542
IES-100G	B-1732	100 kW diesel emergency generator	# PN64329
IES-101G	3-2041	125 kW diesel emergency generator	Existing units
IES-102G	3-2042	400 kW diesel emergency generator	
IES-103G	3-3242	400 kW diesel emergency generator	
IES-104G	O-1900-N	500 kW diesel emergency generator	
IES-105G	O-1900-VCN	100 kW diesel emergency generator	
IES-106G	3-1750	415 kW diesel emergency generator	
IES-107BD	Ammo Supply Point (ASP)	62 kW (83 hp) diesel engine (brass deformer) non-emergency engine	
IES-108G	ACP-Simmons	80 kW diesel emergency generator	# F100030-2P
IES-109G	ACP-Manchester	80 kW diesel emergency generator	
IES-110G	SOF Training Facility - JSOC	600 kW diesel emergency generator	# PN60815
IES-111G	Camp Mackall Commo Hut	125 kW diesel emergency generator	# PN72136
IES-112G	PN-66444	15 kW diesel emergency generator	# PN66444

5. Add Plasma Arc Cutting Machine (ES-01PC, Project/Fund Number = FF00013-8P):
 Fort Bragg Army Post intends to permit a plasma arc cutting machine (ES-01PC) at Building O-190-R61. This machine uses oxygen and an electric arc to create plasma, which can then be used to cut metals. In accordance with US EPA guidance, emissions are calculated as shown in Appendix B39 of the application. During the metal cutting process, emissions of NOx and particulate matter are formed. This exhaust will be vented through a fabric filter with approximately 99.999 % particulate control. The plasma arc cutter is not an insignificant activity based on uncontrolled potential emissions.

6. Add Composting Operation (IES-01CM):
 Fort Bragg Army Post has plans to install and operate a new composting operation. The operation will potentially process 1,400 tons of material per year, converting yard wastes and paper product to humus. In accordance with the California South Coast Air Quality Management District's guidance on co-composting including the development of emission factors from testing composting piles, emissions are calculated as shown in Appendix B40 of the application. As shown in Appendix B40 of the application, the composting operation meets the definition of "Insignificant activities because of size or production rate" in accordance with 15A NCAC 02Q .0503 (8).

IV. Purpose of application (2600102.10D):

As a result of the 2005 Federal Base Realignment and Closure (BRAC) initiative by the US Congress, sources that were formally listed on the Pope Field (formally known as Pope Air Force Base) Air Permit No. 04308 will be transferred to the Fort Bragg air Permit 04379. These existing sources are considered “non-critical operations” at Pope Field and they include boilers, generators, painting operations, wood working operations, and storage tanks. A small number of “mission critical” sources will remain at Pope Air Force Base. Also, some new emergency generators will be added to the Fort Bragg facility.

The modifications/changes to the Fort Bragg Title V will include the following:

- A. Existing paint spray booth ES-07C, located in Building P-3354, Simmons AAF, MACT Subpart GG will be removed from the facility.
- B. The rating of existing generator ES-74G will be corrected to read 175 kW, 235 hp.
- C. All of the references in the Title V Permit for generator ES-TEMPGEN900B will be corrected to read 900 kW.
- D. Existing paint spray booth ES-11C for transportation vehicles will be transferred to the Fort Bragg Title V Permit from the Pope Field Permit as part of the BRAC initiative.
- E. Existing permitted sources (Table 1 below) listed on the Pope Field Permit will be transferred to Fort Bragg

Table 1: Title V Permit as insignificant activities

ID No. on Fort Bragg Permit	Building No. on Pope Field Permit	Description	Reason for Removal from Pope Field Air Permit
IES-00B	457	0.1 mmBtu/hr natural gas-fired boiler	Base Realignment sources Numerous insignificant (due to category, size, or production rate natural gas and/or No. 2 fuel oil-fired extern combustion sources.
IES-00B	770	0.2 mmBtu/hr natural gas-fired boiler	
IES-00B	25	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	180	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	182	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	415	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	140	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	193	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	307	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	315	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	347	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	650	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	720	0.4 mmBtu/hr natural gas-fired boiler	
IES-00B	178	0.5 mmBtu/hr natural gas-fired boiler	
IES-00B	372	0.5 mmBtu/hr natural gas-fired boiler	
IES-00B	373	0.5 mmBtu/hr natural gas-fired boiler	
IES-00B	900	0.5 mmBtu/hr natural gas-fired boiler	
IES-00B	260	0.5 mmBtu/hr natural gas-fired boiler	
IES-00B	706	0.6 mmBtu/hr natural gas-fired boiler	
IES-00B	150	0.7 mmBtu/hr natural gas-fired boiler	
IES-00B	275	0.7 mmBtu/hr natural gas-fired boiler	
IES-00B	309	0.7 mmBtu/hr natural gas-fired boiler	
IES-00B	404	0.7 mmBtu/hr natural gas-fired boiler	
IES-00B	764	0.7 mmBtu/hr natural gas-fired boiler	
IES-00B	233	0.8 mmBtu/hr natural gas-fired boiler	
IES-00B	308	0.9 mmBtu/hr natural gas-fired boiler	
IES-00B	617	0.9 mmBtu/hr natural gas-fired boiler	
IES-00B	276	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	288	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	317	1.1 mmBtu/hr natural gas-fired boiler	
IES-00B	381	1.3 mmBtu/hr natural gas-fired boiler	
IES-00B	231	1.4 mmBtu/hr natural gas-fired boiler	
IES-00B	762	1.4 mmBtu/hr natural gas-fired boiler	

Table 1: Title V Permit as insignificant activities (continued)

ID No. on Fort Bragg Permit	Building No. on Pope Field Permit	Description	Reason for Removal from Pope Field Air Permit
IES-00B	768	1.4 mmBtu/hr natural gas-fired boiler	Base Realignment Sources Numerous insignificant (due to category, size, or production rate) natural gas and/or No. 2 fuel oil-fired extern combustion sources.
IES-00B	306	1.5 mmBtu/hr natural gas-fired boiler	
IES-00B	430	1.7 mmBtu/hr natural gas-fired boiler	
IES-00B	729	2.1 mmBtu/hr natural gas-fired boiler	
IES-00B	550	2.2 mmBtu/hr natural gas-fired boiler	
IES-00B	764	2.4 mmBtu/hr natural gas-fired boiler	
IES-00B	236	2.7 mmBtu/hr natural gas-fired boiler	
IES-00B	454	2.7 mmBtu/hr natural gas-fired boiler	
IES-00B	560	2.7 mmBtu/hr natural gas-fired boiler	
IES-00B	402	3.0 mmBtu/hr natural gas-fired boiler	
IES-00B	708	3.7 mmBtu/hr natural gas-fired boiler	
IES-00B	286	4.4 mmBtu/hr natural gas-fired boiler	
IES-113G	14108	7.5 kW emergency generator	
IES-114G	378	60.0 kW emergency generator	
IES-115G	7	25.0 kW emergency generator	
IES-116G	9	25.0 kW emergency generator	
IES-117G	764	25.0 kW emergency generator	
IES-118G	816	25.0 kW emergency generator	
IES-120G	137	50.0 kW emergency generator	
IES-121G	704	50.0 kW emergency generator	
IES-122G	811	50.0 kW emergency generator	
IES-123G	251	200.0 kW emergency generator	
IES-124G	302	60.0 kW emergency generator	
IES-125G	352	200.0 kW emergency generator	
IES-126G	241	100.0 kW emergency generator	
IES-127G	306	100.0 kW emergency generator	
IES-128G	347	100.0 kW emergency generator	
IES-130G	713	60.0 kW emergency generator	
IES-131G	5033	125.0 kW emergency generator	
IES-132G	250	150.0 kW emergency generator	
IES-133G	307	150.0 kW emergency generator	
IES-134G	346	200.0 kW emergency generator	
IES-135G	707	200.0 kW emergency generator	
IES-136G	900	200.0 kW emergency generator	
IES-14FPF4706A	260	215.0 kW emergency generator	
IES-15FPF4706B	252	215.0 kW emergency generator	
IES-139G	155	500.0 kW emergency generator	
IES-140G	159	600.0 kW emergency generator	
IES-141G	813	500.0 kW emergency generator	
IES-142G	519	600.0 kW emergency generator	
IES-04WO	251	Woodworking Operation	Base Realignment Sources Woodworking
IES-05WO	454	Woodworking Operation	

Table 1: Title V Permit as insignificant activities (continued)

ID No. on Fort Bragg Permit	Building No. on Pope Field Permit	Description	Reason for Removal from Pope Field Air Permit
IES-10PD	558	Degreasing Operation (43 Trans.)	Base Realignment Sources Cleaning Operations
IES-10PD	712 (1 of 2)	Degreasing Operation (Wheel and Tire)	
IES-10PD	712 (2 of 2)	Degreasing Operation (Wheel and Tire)	
IES-10PD	715	Degreasing Operation (43 MXS)	
IES-10PD	723	Degreasing Operation (AGE Maintenance)	
IES-10PD	768	Degreasing Operation (AGE Maintenance)	
IES-10PD	5005	Degreasing Operation (23 Trans.)	
IES-02T	241	500 gallon HFRAST Diesel	Base Realignment Sources Storage Tanks
IES-02T	183B	1,000 gallon HFRAST Diesel	
IES-02T	254C	1,000 gallon HFRAST Diesel	
IES-02T	254D	1,000 gallon HFRAST Diesel	
IES-02T	390B	250 gallon HFRAST Diesel	
IES-02T	G137	500 gallon HFRAST Diesel	
IES-02T	G155	1,000 gallon HFRAST Diesel	
IES-02T	G250	200 gallon HFRAST Diesel	
IES-02T	G252	3000 gallon HFRAST Diesel	
IES-02T	G260	1,000 gallon HFRAST Diesel	
IES-02T	G346	3,000 gallon HFRAST Diesel	
IES-02T	G707	1,500 gallon HFRAST Diesel	
IES-02T	G713	100 gallon HFRAST Diesel	
IES-02T	G764	303 gallon HFRAST Diesel	
IES-02T	G805	1,000 gallon HFRAST Diesel	
IES-02T	G9	300 gallon HFRAST Diesel	
IES-02T	G991	303 gallon HFRAST Diesel	
IES-03T	183A	1,000 gallon HFRAST Gasoline	
IES-03T	390A	500 gallon HFRAST Gasoline	
IES-05T	162A	1,000 gallon HFRAST JP-8	
IES-05T	610C	6,000 gallon HFRAST JP-8	
IES-05T	AVF800	4,000 gallon HFRAST JP-8	
IES-05T	G159	200 gallon HFRAST JP-8	
IES-05T	SANDRAMP1	8,000 gallon HFRAST JP-8	
IES-20T	610B	6,000 gallon HFRAST Motor Oil	
IES-21T	610A	6,000 gallon HFRAST Synthetic Oil	
IES-11T	756E	20,000 gallon HFRUST Gasoline MACT Subpart CCCCC	
IES-11T	756EF	20,000 gallon HFRUST Gasoline MACT Subpart CCCCC	
IES-11T	AVF-759-B	6,000 gallon HFRAST Gasoline	
IES-12T	AVF-759-A	10,000 gallon HFRAST JP-8	
IES-16T	12824	420,000 gallon VFRAST JP-8	
IES-16T	41102	840,000 gallon VFRAST JP-8	
IES-16T	41104	840,000 gallon VFRAST JP-8	
IES-16T	41113	442,819 gallon VFRAST JP-8	
IES-16T	41114	2,310,000 gallon VFRAST JP-8	

F. Insignificant activities added to the Fort Bragg permit that are not associated with the BRAC process.

Table 2

ID No. on Fort Bragg Permit	Building No. on Pope Field Permit	Description	Description
IES-00B	JSOC J1B (1 of 4)	0.15 mmBtu/hr natural gas-fired boiler	Boilers/heaters
IES-00B	JSOC J1B (2 of 4)	0.15 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC J1B (3 of 4)	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC J1B (4 of 4)	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC C4 (1 of 4)	0.15 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC C4 (2 of 4)	0.15 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC C4 (3 of 4)	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	JSOC C4 (4 of 4)	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	Main Post Monument	0.08 mmBtu/hr natural gas-fired boiler	
IES-00B	1 st TSC TEMF – HVU3	0.084 mmBtu/hr natural gas-fired boiler	
IES-00B	1 st TSC TEMF – HVU4	0.084 mmBtu/hr natural gas-fired boiler	
IES-00B	1 st TSC TEMF – HVU1	0.175 mmBtu/hr natural gas-fired boiler	
IES-00B	1 st TSC TEMF – HVU2	0.175 mmBtu/hr natural gas-fired boiler	
IES-00B	1 st TSC TEMF – WH1	0.24 mmBtu/hr natural-fired water heater	
IES-00B	1 st TSC TEMF – WH2	0.24 mmBtu/hr natural-fired water heater	
IES-00B	3-3045	0.50 mmBtu/hr fuel oil-fired boiler	
IES-00B	108 th Mechanical Room 131, 7a	0.50 mmBtu/hr natural gas-fired boiler	
IES-00B	108 th Mechanical Room 131, 7b	0.50 mmBtu/hr natural gas-fired boiler	
IES-00B	R-3065	0.75 mmBtu/hr fuel oil-fired boiler	
IES-00B	108 ADA Barracks 1a	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Barracks 1b	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Barracks 2a	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Barracks 2b	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Barracks 3c	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Barracks 4b	1.0 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Water heater TEMF Area 5	2.1 mmBtu/hr natural gas-fired boiler	
IES-00B	2-1705	0.3 mmBtu/hr natural gas-fired boiler	
IES-00B	P-3354	1.5 mmBtu/hr natural gas-fired boiler	
IES-00B	108 ADA Water heater TEMF Area 6	2.1 mmBtu/hr natural gas-fired boiler	
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IES-119G	O-9045	35.0 kW emergency generator	Generators
IES-129G	C-1140	100 kW emergency generator	
IES-137G	Warehouse Complex	215 kW emergency generator	
IES-138G	Warehouse Complex	215 kW emergency generator	
<hr/>			
IES-12C	Paint Bench at the MacRidge Triangle Compound	Paint spray booth located in building P-3354 (Simmons AAF)	Painting

G. New significant activities to be added to the Fort Bragg Permit

Table 3

ID No. on Fort Bragg Permit	Building No. on Pope Field Permit	Description	Description
ES-89G	JSOC J1B	2,000 kW emergency generator	Generators
ES-90G	JSOC J1B	2,000 kW emergency generator	
ES-91G	JSOC C4	2,000 kW emergency generator	
ES-92G	JSOC C4	2,000 kW emergency generator	
ES-93G	JSOC C4	2,000 kW emergency generator	
ES-94G	JSOC C4	2,000 kW emergency generator	
ES-11C	554	Coating booth for Transportation vehicles	Paint booth
ES-12C	P-3354	Coating booth at Simmons AAF	Paint booth

H. 40 CFR Part 63, Subpart ZZZZ has been revised (May 2010) to include work practice standards and numerical emissions limits under the rule. The condition in the permit will be revised to reflect the current regulations.

V. Changes to existing permit:

Old Page No.	New Page No.	Condition No.	Changes
Cover Letter			
Page 1	Page 1	Heading and body of letter	Revised issue date, revised permit number, changed “complete application” received date, revised the “one” year re-submittal paragraph
Page 2	Page 2	Heading and body of letter	Revised issued date at the top of letter, and changed the effective date of permit, added NOx and PM10 hourly contributions for the addition of the new sources in this application
Page 3	Page 3	“Changes to Permit” Table	Updated the table to reflect the changes per this modification
Insignificant Activities List			
Page 1 of 4	Page 1 of 6	Insignificant Activities List	Changed power rating for IES-7G to 455 kW, removed IES-4G, 39G, 52G, and 92G
Page 2 of 4	Page 2 of 6		Removed insignificant activities: IES-01LS, IES-01PD, IES-01PO, IES-02AB, IES-02LS, IES-02PD3, IES-02PO, IES-03PO, IES-02WO, IES-08PD38, IES-09PD6, IES-2405, IES-02PO, IES-01SP, IES-03PO, IES-05WO
N/A	Page 2 of 6		Added emergency generators IES-113G through 144G, added two woodworking operations (IES-04WO and 05WO), numerous boilers
N/A	Page 3 of 6		Added “BRAC” sources to table (tanks and degreasers)
N/A	Page 6 of 6		Fire pumps listed separately on attachment “A”
Changes to Body of Permit			
Page 1	Page 1	Cover Page	Changed issue date, changed “replaces permit revision number, changed effective date, changed application number, changed complete application date,
All pages	All pages	Page heading	Changed permit revision number to T35
Page 6	Page 6	Specific Limitations and Conditions	Added emergency generators ES-89, 90, 91, 92, 93, and 94 to table, changed the rating to 175 kW for ES-74G
Page 7	Page 7		Removed paint spray booth ES-07C, added transportation paint booth ES-11C, added paint spray booth ES-12C to table
Page 37	Page 37		Changed rating of ES-TEMPGEN900B to 900 kW in table, added six emergency generators to table ES-89G, 90G, 91G, 92G, 93G, and 94G

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Page 68	Page 68		Added six emergency generators to table ES-89G, 90G, 91G, 92G, 93G, and 94G
Page 52	Page 52	Multiple Emissions	Added paint booth ES-11C of work practice standards for VOCs
Page 54	Page 54		Added paint booth ES-12C to MACT Subpart GG
N/A	Pages 62 - 69		Added generators to appropriate tables, added revised monitoring, recordkeeping, and reporting requirements for MACT Subpart ZZZZ
N/A	Page 72		Added PSD avoidance condition for generators ES-91G, 92G, 93G, and 94G
N/A	Page 73		Added generators ES-89G, 90G, 91G, 92G, 93G, and 94G to NSPS condition
N/A	Pages 76-86	General Conditions	Added revision 3.4

VI. Facility Description:

Fort Bragg is a military base and home to approximately 50,000 active duty soldiers.

V. Statement of Compliance:

The DAQ has reviewed the compliance status of this facility. Mr. Robert Hayden of the Fayetteville Regional Office performed a facility inspection on February 22, 2011 and the facility was determined to be in compliance with all applicable requirements. The applicant has certified that the facility will be in compliance with all applicable requirements at the time of permit effective date will continue to comply with these requirements. The applicant has also certified that the facility will be in compliance with any applicable requirements taking effect during the term of the permit and will meet such requirements on a timely basis.

VI. Summary of emission sources for which this renewal is being issued

Table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Boilers			
ES-01CMA, NSPS ES-02CMA, NSPS ES-03CMA, NSPS 15A NCAC 2D .1109	No. 2 fuel oil/natural gas-fired boiler with low NOx burners and flue gas recirculation (41 mmBtu per hour heat input each firing fuel oil and 42 million Btu per hour heat input each when firing natural gas)	None	None
ES-11B ES-12B 15A NCAC 2D .1109	Two natural gas/No. 2 fuel oil/on-specification used No. 2 fuel oil-fired boilers (25 million Btu per hour heat input capacity each), located in Building N-6002 [COSCOM],	None	None
ES-22B - NSPS ES-23B – NSPS 15A NCAC 2D .1109	Two natural gas-fired boilers (12.6 million Btu per hour heat input capacity each), located in the Material Maintenance Division (MMD),	None	None
ES-24B - NSPS ES-25B - NSPS ES-26B – NSPS 15A NCAC 2D .1109	Three natural gas/No. 2 fuel oil/on-specification used No. 2 fuel oil-fired boilers (two at 23.4 million Btu per hour heat input capacity each and one at 10 million Btu per hour heat input capacity, respectively) located in the new Womack Hospital Boiler Plant, Building 4-2811,	None	None
ES-27B ES-28B 15A NCAC 2D .1109	Two natural gas-fired boilers (20 million Btu per hour heat input capacity each), located in Building E-2823	None	None
ES-29B – NSPS 15A NCAC 2D .1109	One natural gas/No. 2 fuel oil/on-specification used No. 2 fuel oil-fired boiler (72.3 million Btu per hour heat input capacity), located in Building C-2337 [82nd Div.],	None	None

Boilers (Continued)			
ES-30B ES-31B ES-32B	Three diesel-fired boilers (8.3 million Btu per hour heat input capacity each), located in the Special Operations Training Facility [SOTF] area,	None	None
ES-35B – NSPS 15A NCAC 2D .1109	One natural gas/No. 2 fuel oil/on-specification recycled No. 2 fuel oil-fired “temporary backup” boiler (up to 72.3 million Btu per hour heat input)	None	None
ES-36B - NSPS ES-37B - NSPS ES-38B - NSPS ES-39B – NSPS 15A NCAC 2D .1109	Four natural gas/No. 2 fuel oil-fired boilers (10.5 million Btu per hour heat input each)	None	None
ES-40B ES-41B ES-42B ES-43B 15A NCAC 2D .1109	Four natural gas/No. 2 fuel oil-fired boilers (8.4 million Btu per hour heat input each) located in buildings A4251 and A2547	None	None
ES-44B – NSPS 15A NCAC 2D .1109	One No. 2 fuel oil/natural gas-fired boilers (45.42 million Btu per hour heat input capacity), located in the 82 nd Heat Plant	None	None
ES-45B – NSPS 15A NCAC 2D .1109	One No. 2 fuel oil/natural gas-fired boilers (45.42 million Btu per hour heat input capacity), located in the 82 nd Heat Plant	None	None
ES-46B – NSPS 15A NCAC 2D .1109	One No. 2 fuel oil/natural gas-fired boilers (45.42 million Btu per hour heat input capacity), located in the 82 nd Heat Plant	None	None
ES-TEMPBOIL NSPS, Subpart Dc 15A NCAC 2D .1109	Natural gas/No. 2 fuel oil-fired, temporary boiler (up to 100 million Btu per hour heat input)	None	None
ES-FORSCOM1 PSD Avoidance 15A NCAC 2D .1109	Natural gas/No. 2 fuel oil-fired, boiler (3.0 million Btu per hour heat input)	None	None
ES-FORSCOM2 PSD Avoidance 15A NCAC 2D .1109	Natural gas/No. 2 fuel oil-fired, boiler (3.0 million Btu per hour heat input)	None	None
ES-FORSCOM3 PSD Avoidance 15A NCAC 2D .1109	Natural gas/No. 2 fuel oil-fired, boiler (3.0 million Btu per hour heat input)	None	None
Generators			
ES-01PSG **	Diesel-fired emergency/peak shaving generator (230 kW maximum output)	None	None
ES-02PSG **	Diesel-fired emergency/peak shaving generator (250 kW maximum output)	None	None
ES-03PSG **	Diesel-fired emergency/peak shaving generator (350 kW maximum output)	None	None
ES-04PSG **	Diesel-fired emergency/peak shaving generator (500 kW maximum output)	None	None
ES-05PSG **	Diesel-fired emergency/peak shaving generator (350 kW maximum output)	None	None
ES-06PSG **	Diesel-fired emergency/peak shaving generator (350 kW maximum output)	None	None
ES-07PSG **	Diesel-fired emergency/peak shaving generator (400 kW maximum output)	None	None
ES-08PSG **	Diesel-fired emergency/peak shaving generator (400 kW maximum output),	None	None
ES-10PSG **	One diesel-fired emergency/peak shaving generator (600 kW maximum output),	None	None

-Table continued on the next page-

Table contains a summary of permitted emission sources and associated air pollution control devices and appurtenances: continued.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Generators (continued)			
ES-11PSG ** ES-12PSG ** ES-13PSG **	Diesel-fired emergency/peak shaving generators (850 kW maximum output each),	None	None
ES-16PSG **	Diesel-fired emergency/peak shaving generator (900 kW maximum output),	None	None
ES-24G ES-25G ES-26G	Diesel-fired emergency generators (1275 kW maximum output each),	None	None
ES-32G	Diesel-fired emergency generator (1500 kW maximum output),	None	None
ES-33G MACT Subpart ZZZZ	Diesel-fired emergency generator (1750 kW maximum output),	None	None
ES-37G	Diesel-fired emergency generator (1250 kW maximum output),	None	None
ES-38G	Diesel-fired emergency generator (600 kW maximum output),	None	None
ES-41G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (1000 kW maximum output),	None	None
ES-42G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (1000 kW maximum output),	None	None
ES-43G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (750 kW maximum output),	None	None
ES-44G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (500 kW maximum output),	None	None
ES-45G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (350 kW maximum output),	None	None
ES-46G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (455 kW maximum output),	None	None
ES-47G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (450 kW maximum output),	None	None
ES-TEMPGEN1500A MACT Subpart ZZZZ NSPS Subpart IIII	Diesel/No. 2 fuel oil –fired, lean burn, temporary emergency generator (up to 1500 kW maximum output),	None	None
ES-TEMPGEN1500B MACT Subpart ZZZZ NSPS Subpart IIII	Diesel/No. 2 fuel oil –fired, lean burn, temporary emergency generator (up to 1500 kW maximum output),	None	None
ES-TEMPGEN900A MACT Subpart ZZZZ NSPS Subpart IIII	Diesel/No. 2 fuel oil –fired, lean burn, temporary emergency generator (up to 900 kW maximum output),	None	None
ES-TEMPGEN900B MACT Subpart ZZZZ NSPS Subpart IIII	Diesel/No. 2 fuel oil –fired, lean burn, temporary emergency generator (up to 900 kW maximum output),	None	None

-Table continued on the next page-

Table contains a summary of permitted emission sources and associated air pollution control devices and appurtenances: continued.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Generators (continued)			
ES-73G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (300 kW maximum output),	None	None
ES-74G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (175 kW maximum output),	None	None
ES-75G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (150 kW maximum output),	None	None
ES-80G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (3100 kW maximum output, 4154 Hp),	None	None
ES-81G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (3100 kW maximum output, 4154 Hp),	None	None
ES-82G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (3100 kW maximum output, 4154 Hp),	None	None
ES-83G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (2500 kW maximum output, 3350 Hp),	None	None
ES-84G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (800 kW maximum output, 1073 Hp),	None	None
ES-85G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (150 kW maximum output, 201 Hp),	None	None
ES-86G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (800 kW maximum output, 1073 Hp),	None	None
ES-87G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (800 kW maximum output),	None	None
ES-88G MACT Subpart ZZZZ NSPS Subpart IIII	Diesel-fired emergency generator (750 kW maximum output),	None	None
Cogeneration System			
ES-33B NSPS, Subpart GG	One natural gas, No. 2 fuel oil-fired cogeneration gas turbine (60.32 million Btu per hour maximum heat input, 5.0 megawatt electrical output)	None	None
ES-34B NSPS, Subpart Dc	One heat recovery steam generator (61.2 million Btu per hour maximum heat input)	None	None

Table contains a summary of permitted emission sources and associated air pollution control devices and appurtenances: continued.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Paint Spray Booth			
ES-01C ES-02C	Two paint spray booths, located in Building Y-4804 [Main],	None	None
ES-04C	One paint spray booth, located in Building F-4334 [Main Post],	None	None
ES-05C	One paint spray booth, located in Building A-4505 [National Guard]	None	None
ES-08C	One paint spray booth, located at the new Special Operations Training Facility [SOTF]	None	None
ES-09C	One dry filter-type paint spray booth (ES-09C) using non-reactive water Reducible Chemical Agent Resistant Coatings only, along with natural gas-fired bake ovens (3.3 million Btu per hour total heat input capacity, IES-09C) located in the Material Maintenance Building (Y-4804)	None	None
ES-10C MACT, Subpart GG	One dry filter paint spray booth (ES-10C) with direct natural gas-fired make-up air heater (3.3 million Btu per hour heat input, ID No. IES-10H) located in building No. P-3354)	CD-10C	One thermal oxidizer (1.2 million Btu per hour heat input)
ES-11C	Transportation paint spray booth with HVLP and aerosol coating	None	None
Engine Test Stands			
ES-01E	One larger diesel vehicle engine test stand located at the Material Maintenance Division, Bldg Y-5015	None	None
ES-02E	One smaller diesel vehicle engine test stand located at the Material Maintenance Division, Bldg Y-5015	None	None
Miscellaneous			
ES-01PC	Plasma arc cutter	CD-01PC	Cartridge filter dust collector
ES-01P	One paper pulverizer	CD-01P	One fabric filter (612 square feet of surface area)

** These generators are PSD sources when operating as peak shavers only.

VII. Emission Source-by-Source Evaluation of Existing Permitted Sources - Applicable Regulations

- A. Three boilers (No. 2 fuel oil/ natural gas-fired, 41 million Btu per hour heat input capacity each when firing No. 2 fuel and 42 million Btu per hour input capacity each when firing natural gas, ID Nos. ES-01CMA, ES-02CMA, ES-03CMA) located in Building CMA/D-3529.

1. 15A NCAC 2D .0524: Particulate Emissions From Combustion Sources
2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
3. 15A NCAC 2D .0524: Visible Emissions
4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for NO_x
5. 15A NCAC 2D .1100 and 2D .0702(18): Schedule for Toxic Air Pollutant Emissions
6. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.

- B. Two boilers (natural gas/No. 2 fuel oil/on-specification used No. 2 fuel oil-fired, 25.0 million Btu per hour heat input capacity each, ID Nos. ES-11B and ES-12B) located in Building N-6002 [COSCOM]
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required. .
- C. Two boilers (natural gas-fired, 12.6 million Btu per hour heat input capacity each, ID Nos. ES-22B and ES-23B) located in the Maintenance Management Division
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- D. Three boilers (natural gas/No. 2 fuel oil/on-specification used No. 2 oil-fired boiler, 23.4 million Btu per hour heat input capacity each, ID Nos. ES-24B, ES-25B, and 10 million Btu per hour heat input capacity for ES-26B, NSPS) located in the new Womack Hospital Boiler Plant, Building 4-2811
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for NO_x
 5. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 6. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- E. Two natural gas-fired boilers (20.0 million Btu heat input capacity each, ID Nos. ES-27B and ES-28B) located at building E-2823
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- F. One natural gas/No. 2 fuel oil/on-specification used No. 2 fuel oil-fired boiler (72.3 million Btu per hour heat input capacity, ID No. ES-29B, NSPS) located in Building C-2337 [82nd Division]
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0524: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for NO_x
 5. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 6. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.

- G. Three boilers (No. 2 fuel oil-fired, 8.3 million Btu per hour heat input capacity each, ID Nos. ES-30B, ES-31B, and ES-32B) located at SOTF
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 5. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 6. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- H. One natural gas/No. 2 fuel oil/on-specification recycled No. 2 fuel oil-fired boiler (72.3 million Btu per hour heat input capacity, ID No. ES-35B, NSPS)
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0524: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- I. Four natural gas/No. 2 fuel oil-fired boilers (10.5 million Btu per hour heat input capacity each, ID Nos. ES-36B, 37B, 38B, and 39B, NSPS)
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- J. Four natural gas/No. 2 fuel oil-fired boilers (8.4 million Btu per hour heat input capacity each, ID Nos. ES-40B, 41B, 42B, and 43B)
1. 15A NCAC 2D. 0503: Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for SO₂
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.
- K. One natural gas/No. 2 fuel oil-fired temporary boiler (up to 100 million Btu per hour heat input, ID No. TEMPBOIL, NSPS)
1. 15A NCAC 2D. 0503 or 0524 (depending on size and manufacture date): Particulate Emissions From Fuel Burning Indirect Heat Exchangers
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0521 or .0524 (depending on size of boiler): Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for NO_x
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT
- No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.

- L. Three No. 2 fuel oil/natural gas-fired boilers (45.42 million Btu per hour heat input each, ID Nos. ES-44B, 45B, and 46B, NSPS)
 1. 15A NCAC 2D .0524: Particulate Emissions From Combustion Sources
 2. 15A NCAC 2D .0524: Sulfur Dioxide Emissions From combustion Sources
 3. 15A NCAC 2D .0524: Visible Emissions
 4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance for NOx
 5. 15A NCAC 2D .1109 CAA 112(j) Case-by-Case MACT

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping or reporting is required.

- M. Emergency and/or peak shaving generators located in various Buildings:

ID Number	Source Description	Size of Generator
ES-01PSG **	Diesel fuel-fired	230 kW maximum output
ES-02PSG **	Diesel fuel-fired	250 kW maximum output
ES-03PSG **	Diesel fuel-fired	350 kW maximum output
ES-04PSG **	Diesel fuel-fired	500 kW maximum output
ES-05PSG **	Diesel fuel-fired	350 kW maximum output
ES-06PSG **	Diesel fuel-fired	350 kW maximum output
ES-07PSG **	Diesel fuel-fired	400 kW maximum output
ES-08PSG **	Diesel fuel-fired	400 kW maximum output
ES-10PSG **	Diesel fuel-fired	600 kW maximum output
ES-11PSG **	Diesel fuel-fired	850 kW maximum output
ES-12PSG **	Diesel fuel-fired	850 kW maximum output
ES-13PSG **	Diesel fuel-fired	850 kW maximum output
ES-16PSG **	Diesel fuel-fired	900 kW maximum output
ES-24G	Diesel fuel-fired	1275 kW maximum output
ES-25G	Diesel fuel-fired	1275 kW maximum output
ES-26G	Diesel fuel-fired	1275 kW maximum output
ES-32G	Diesel fuel-fired	1500 kW maximum output
ES-33G, MACT	Diesel fuel-fired	1750 kW maximum output
ES-37G, MACT	Diesel fuel-fired	1250 kW, 1676 hp maximum output
ES-38G, MACT	Diesel fuel-fired	600 kW, 804 hp maximum output
ES-41G, MACT, NSPS	Diesel fuel-fired	1000 kW, 1341 hp maximum output
ES-42G, MACT, NSPS	Diesel fuel-fired	1000 kW, 1341 hp maximum output
ES-43G, MACT, NSPS	Diesel fuel-fired	750 kW, 1005.8 hp maximum output
ES-44G, MACT, NSPS	Diesel fuel-fired	500 kW, 670.5 hp maximum output
ES-45G, MACT, NSPS	Diesel fuel-fired	350 kW, 469.4 hp maximum output
ES-46G, MACT, NSPS	Diesel fuel-fired	455 kW, 610.2 hp maximum output
ES-47G, MACT, NSPS	Diesel fuel-fired	450 kW, 603.5 hp maximum output
ES-73G, MACT, NSPS	Diesel fuel-fired	300 kW, 402.3 hp maximum output
ES-74G, MACT, NSPS	Diesel fuel-fired	175 kW, 235 hp maximum output
ES-75G, MACT, NSPS	Diesel fuel-fired	150 kW, 201.2 hp maximum output
ES-80G, MACT, NSPS	Diesel fuel-fired	3100 kW, 4154 hp maximum output
ES-81G, MACT, NSPS	Diesel fuel-fired	3100 kW, 4154 hp maximum output
ES-82G, MACT, NSPS	Diesel fuel-fired	3100 kW, 4154 hp maximum output
ES-83G, MACT, NSPS	Diesel fuel-fired	2500 kW, 3350 hp maximum output
ES-84G, MACT, NSPS	Diesel fuel-fired	800 kW, 1073 hp maximum output
ES-85G, MACT, NSPS	Diesel fuel-fired	150 kW, 201 hp maximum output
ES-86G, MACT, NSPS	Diesel fuel-fired	800 kW, 1073 hp maximum output
ES-87G, MACT, NSPS	Diesel fuel-fired	800 kW, 1073 hp maximum output
ES-88G, MACT, NSPS	Diesel fuel-fired	750 kW, 1006 hp maximum output

M. Emergency and/or peak shaving generators located in various Buildings (continued):

ES-89G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-90G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-91G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-92G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-93G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-94G, MACT, NSPS	Diesel fuel-fired	2000 kW, 2682 hp maximum output
ES-TEMPGEN1500A MACT, NSPS	Diesel fuel/No. 2 fuel oil-fired	Up to 1500 kW, up to 2010 hp maximum output
ES-TEMPGEN1500B MACT, NSPS	Diesel fuel/No. 2 fuel oil-fired	Up to 1500 kW, up to 2010 hp maximum output
ES-TEMPGEN900A MACT, NSPS	Diesel fuel/No. 2 fuel oil-fired	Up to 900 kW, up to 1206 hp maximum output
ES-TEMPGEN900B MACT, NSPS	Diesel fuel/No. 2 fuel oil-fired	Up to 900 kW, up to 1206 hp maximum output

** These generators are PSD sources when operating as peak shavers only.

1. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
2. 15A NCAC 2D .0521: Visible Emissions
3. 15A NCAC 2D .0524: Standards Of Performance For Stationary Compression Ignition Internal Combustion Engines
4. 15A NCAC 2D .0530: (PSD for NOx from peak shaving operation)
5. 15A NCAC 2D .1111: MACT, Subpart ZZZZ, Hazardous Air Pollutants

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping, or reporting is required.

6. Since the last renewal 40 CFR Part 63, Subpart ZZZZ has been revised (May 2010) to include work practice standards and numerical emissions limits under the rule. The condition in the permit will be revised to reflect the current regulations.

Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements
IES-16G	U-2204	≤ 500bhp (308)	Existing	< 12 June 2006	Emg.	Must comply with work practice standards and operating limits by May 3, 2013.
IES-36G	O-1900	≤ 500bhp (107)	Existing	< 12 June 2006	Emg.	
IES-49G	O-9077	≤ 500bhp (60)	Existing	< 12 June 2006	Emg.	
IES-57G	O-3550	≤ 500bhp (45)	Existing	< 12 June 2006	Emg.	
IES-90G	O-9074	≤ 500bhp (268)	Existing	< 12 June 2006	Emg.	
IES-101G	3-2041	≤ 500bhp (168)	Existing	< 12 June 2006	Emg.	
IES-105G	O-1900-VCN	≤ 500bhp (134)	Existing	< 12 June 2006	Emg.	
ES-74G		≤ 500bhp (235)	Existing	< 12 June 2006	Emg.	

For the engines in this category, Fort Bragg Army post must comply with the applicable emission limitations and operating limitations no later than May 3, 2013 (three years from the effective date of the rule).

A summary of the requirements for this category of engines is provided below:

- a. Operating Limit Requirements - work practice requirements (except during startup)
 - Change oil and filter every 500 hours of operation or annually, whichever comes first.
 - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.
 - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- b. Operating Limit Requirements (during startup)
 - Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
- c. Monitoring/Operation/Maintenance Requirements
 - Operate and maintain the stationary RICE according to the manufacturer's instructions or develop own maintenance plan for good air pollution control practice for minimizing emissions.
 - Must install a non-resettable hour meter if one is not already installed.
 - Must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- d. Hours of Operation Requirements
 - Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
 - There is no time limit on the use of emergency stationary RICE in emergency situations; however, the owner must record the length of operation and the reason the engine was in operation during that time.
 - The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent.
 - Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units are limited to 100 hours per year unless records indicate that more time is allowed. Owner/operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing.
 - Records must be maintained documenting why the engine was operating to ensure the 100 hours per year limit for maintenance and testing operation is not exceeded.
 - The emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.
 - The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid.
 - Owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout. These 15 hours are counted as part of the 50 hours of operation per year provided for nonemergency situations.
- e. Continuous Compliance Requirements
 - Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; *OR*
 - Develop and follow own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good practice for minimizing air emissions.

- f. Reporting/Recordkeeping Requirements
- Must submit a semi-annual compliance report. The report must contain:
 - If there are no deviations from any operating limitations (work practice requirements), a statement that there were no deviations during the reporting period.
 - If the owner had a deviation from any operating limitations (work practice requirements) during the reporting period, include a description, corrective actions, etc.
 - If the owner had a malfunction during the reporting period include a description, corrective actions, etc.
 - Must keep records of the following:
 - A copy of each notification and report that is submitted to comply with subpart ZZZZ (Note: existing emergency CI RICE are not required to submit an initial notification).
 - The occurrence and duration of each malfunction of the unit and records of corrective actions taken during periods of malfunction to minimize emissions.
 - Maintenance conducted on the stationary RICE in order to demonstrate that the owner operated and maintained the stationary RICE according to own maintenance plan.
 - Records of the hours of operation that is recorded through the non-resettable hour meter. Must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
 - Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records must be in a suitable form and be readily available for expeditious review.

Table 2: Summary of Subpart ZZZZ Applicability for Existing Non-Emergency CI RICE ≤ 500 bhp						
Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements
ES-01PSG	3-1945	≤ 500bhp (308)	Existing	< 12 June 2006	Non-Emg.	Must comply with emission and operating limits by May 3, 2013.
ES-02PSG	3-2245A	≤ 500bhp (335)	Existing	< 12 June 2006	Non-Emg.	
ES-03PSG	3-2245	≤ 500bhp (469)	Existing	< 12 June 2006	Non-Emg.	
ES-05PSG	3-1947	≤ 500bhp (469)	Existing	< 12 June 2006	Non-Emg.	
ES-06PSG	3-3045	≤ 500bhp (469)	Existing	< 12 June 2006	Non-Emg.	

Requirements for Existing Non-Emergency CI RICE ≤ 500 bhp

For the engines in this category, Fort Bragg Army post must comply with the applicable emission limitations and operating limitations no later than May 3, 2013 (three years from the effective date of the rule).

A summary of the requirements for this category of engines is provided below:

- a. Operating Limit Requirements (except during startup)
 - Limit concentration of CO in the exhaust to 49 ppmvd or less at 15% O₂; *OR*
 - Reduce CO emissions by 70% or more.
- b. Operating Limit Requirements (during startup)
 - Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
- c. Testing Requirements
 - Must perform an initial compliance test. Must conduct the initial performance test or other initial compliance demonstrations in accordance with Tables 4 and 5 of Subpart ZZZZ that apply within 180 days after the compliance date.
 - There are no subsequent performance testing requirements for this category of engines.

- d. **Monitoring/Operation/Maintenance/Fuel Requirements**
 If any engines in this category are not equipped with a closed crankcase ventilation system, the owner must comply by either installing a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere or by installing an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
- Must follow the manufacturer’s specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters (or get Administrator approval for alternate requirements).
 - Must minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards specified above apply.
 - Beginning 3 May 2013, engines in this category with a displacement of less than 30 liters per cylinder must use diesel fuel that has a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- e. **Reporting/Recordkeeping Requirements**
- The owner must submit an initial notification of applicability by *31 August 2010* (120 days after the final rule is effective - May 3, 2010). Additionally, the following notifications must be submitted, when/as applicable:
 - Notification of performance test, submission of site-specific test plan, request for extension of compliance, notification that source is subject to special compliance requirements, and notification of compliance status.
 - Must submit a semi-annual compliance report. The report must contain:
 - If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations during the reporting period.
 - If the owner had a deviation from any emission limitations or operating limitations during the reporting period, include a description, corrective actions, etc.
 - If the owner had a malfunction during the reporting period include a description, corrective actions, etc.
 - Must keep records of the following:
 - A copy of each notification and report that is submitted to comply with Subpart ZZZZ
 - The occurrence and duration of each malfunction of the unit and records of corrective actions taken during periods of malfunction to minimize emissions
 - Records of performance tests and evaluations
 - Actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal operation
 - Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records must be in a suitable form and be readily available for expeditious review.

Table 3: Summary of Subpart ZZZZ Applicability for Existing Non-Emergency CI RICE > 500 bhp

Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements
ES-04PSG	3-2144	> 500bhp (671)	Existing	< 12 June 2006	Non-Emg.	Must comply with emission and operating limits by May 3, 2013.
ES-07PSG	3-2448	> 500bhp (536)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-08PSG	3-2242	> 500bhp (536)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-10PSG	3-2245B	> 500bhp (805)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-11PSG	O-1900	> 500bhp (1140)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-12PSG	O-1900	> 500bhp (1140)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-13PSG	O-1900	> 500bhp (1140)	Existing	< 19 Dec. 2002	Non-Emg.	
ES-16PSG	3-3055	> 500bhp (1207)	Existing	< 19 Dec. 2002	Non-Emg.	

For the engines in this category, Fort Bragg Army post must comply with the applicable emission limitations and operating limitations no later than May 3, 2013 (three years from the effective date of the rule).

A summary of the requirements for this category of engines is provided below:

- a. Operating Limit Requirements (except during startup)
 - Limit concentration of CO in the exhaust to 23 ppmvd or less at 15% O₂; *OR*
 - Reduce CO emissions by 70% or more.
 - If the owner is complying with the applicable limits above using an oxidation catalyst, then the owner must:
 - Maintain catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; *AND*
 - Maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
 - If the owner is complying with the applicable limits above without using an oxidation catalyst, then the owner must:
 - Comply with any operating limitations approved by the Administrator.
- b. Operating Limit Requirements (during startup)
 - Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
- c. Testing Requirements
 - Must perform an initial compliance test. Must conduct the initial performance test or other initial compliance demonstrations in accordance with Tables 4 and 5 of Subpart ZZZZ that apply within 180 days after the compliance date.
 - Subsequent performance tests must be conducted every 8,760 hrs or 3 years, whichever comes first.
- d. Monitoring/Operation/Maintenance/Fuel Requirements
 - If any engines in this category are not equipped with a closed crankcase ventilation system, the owner must comply with either paragraph (i) or paragraph (ii) below.
 - i. Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere; *OR*
 - ii. Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
 - Must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters (or get Administrator approval for alternate requirements).
 - Must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards specified above apply.
 - Beginning 3 May 2013, engines in this category with a displacement of less than 30 liters per cylinder must use diesel fuel that has a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- e. Reporting/Recordkeeping Requirements
 - The owner must submit an initial notification of applicability by *31 August 2010* (120 days after the final rule is effective - May 3, 2010). Additionally, the following notifications must be submitted, when/as applicable:
 - Notification of performance test, submission of site-specific test plan, request for extension of compliance, notification that source is subject to special compliance requirements, and notification of compliance status.

- Must submit a semi-annual compliance report. The report must contain:
 - If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations during the reporting period.
 - If the owner had a deviation from any emission limitations or operating limitations during the reporting period, include a description, corrective actions, etc.
 - If the owner had a malfunction during the reporting period include a description, corrective actions, etc.
- Must keep records of the following:
 - A copy of each notification and report that is submitted to comply with Subpart ZZZZ
 - The occurrence and duration of each malfunction of the unit and records of corrective actions taken during periods of malfunction to minimize emissions
 - Records of performance tests and evaluations
 - Actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal operation
- Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records must be in a suitable form and be readily available for expeditious review.

The engines listed in Table 4 are subject to limited requirements under Subpart ZZZZ

Table 4: Summary of Subpart ZZZZ Applicability for New Emergency CI RICE ≤ 500 bhp						
Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements
ES-45G	3-1749	≤ 500bhp (469)	New	≥ 12 June 2006	Emg.	Compliant by meeting the requirements of 40 CFR Part 60 subpart III (CI).
ES-73G	3-1648	≤ 500bhp (402)	New	≥ 12 June 2006	Emg.	
ES-75G	3-1647	≤ 500bhp (201)	New	≥ 12 June 2006	Emg.	
ES-85G	FORSCOM HQ	≤ 500bhp (201)	New	≥ 12 June 2006	Emg.	
IES-73G	O-3650	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-74G	O-9810	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-75G	O-9111	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-76G	O-9112	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-77G	O-9301	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-78G	O-9003	≤ 500bhp (34)	New	≥ 12 June 2006	Emg.	
IES-79G	L-6622	≤ 500bhp (80)	New	≥ 12 June 2006	Emg.	
IES-80G	A-1682	≤ 500bhp (80)	New	≥ 12 June 2006	Emg.	
IES-81G	C-1140	≤ 500bhp (80)	New	≥ 12 June 2006	Emg.	
IES-82G	C-2729	≤ 500bhp (80)	New	≥ 12 June 2006	Emg.	
IES-83G	H-6125	≤ 500bhp (168)	New	≥ 12 June 2006	Emg.	
IES-84G	H-3830/D-3838	≤ 500bhp (168)	New	≥ 12 June 2006	Emg.	
IES-85G	X-5987	≤ 500bhp (168)	New	≥ 12 June 2006	Emg.	
IES-86G	M-8630	≤ 500bhp (168)	New	≥ 12 June 2006	Emg.	
IES-87G	O-1900-L	≤ 500bhp (469)	New	≥ 12 June 2006	Emg.	
IES-88G	3-1650	≤ 500bhp (241)	New	≥ 12 June 2006	Emg.	
IES-89G	O-190-33	≤ 500bhp (268)	New	≥ 12 June 2006	Emg.	
IES-91G	3-3135	≤ 500bhp (107)	New	≥ 12 June 2006	Emg.	
IES-93G	DASR	≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-94G	ACP-Longstreet	≤ 500bhp (335)	New	≥ 12 June 2006	Emg.	
IES-95G	ACP-Randolph	≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-96G	ACP-Chicken	≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-97G	ACP-Honeycutt	≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-99G	M-37	≤ 500bhp (80)	New	≥ 12 June 2006	Emg.	

The engines listed in Table 4 are subject to limited requirements under Subpart ZZZZ

Table 4: Summary of Subpart ZZZZ Applicability for New Emergency CI RICE ≤ 500 bhp						
Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements Compliant by meeting the requirements of 40 CFR Part 60 subpart III (CI).
IES-100G	B-1732	≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-107BD	Ammo Supply Point	≤ 500bhp (107)	New	≥ 12 June 2006	Non Emg.	
IES-108G	ACP-Simmons	≤ 500bhp (107)	New	≥ 12 June 2006	Emg.	
IES-109G	ACP-Manchester	≤ 500bhp (107)	New	≥ 12 June 2006	Emg.	
IES-111G	Camp MacKall Commo Hut	≤ 500bhp (168)	New	≥ 12 June 2006	Emg.	
IES-112G	PN-66444	≤ 500bhp (20)	New	≥ 12 June 2006	Emg.	
IES-119G		≤ 500bhp (47)	New	≥ 12 June 2006	Emg.	
IES-129G		≤ 500bhp (134)	New	≥ 12 June 2006	Emg.	
IES-133G		≤ 500bhp (201)	New	≥ 12 June 2006	Emg.	
IES-144G		≤ 500bhp (201)	New	≥ 12 June 2006	Emg.	
IES-01FPA2838		≤ 500bhp (235)	New	≥ 12 June 2006	Fire pump	
IES-02FPH3838		≤ 500bhp (60)	New	≥ 12 June 2006	Fire pump	
IES-03FPHH4983		≤ 500bhp (188)	New	≥ 12 June 2006	Fire pump	
IES-04FPH6628		≤ 500bhp (60)	New	≥ 12 June 2006	Fire pump	
IES-05FP P4543A		≤ 500bhp (175)	New	≥ 12 June 2006	Fire pump	
IES-06FP P4543B		≤ 500bhp (175)	New	≥ 12 June 2006	Fire pump	
IES-07FP P4543C		≤ 500bhp (175)	New	≥ 12 June 2006	Fire pump	
IES-08FP P4543D		≤ 500bhp (208)	New	≥ 12 June 2006	Fire pump	
IES-09FPR3065		≤ 500bhp (350)	New	≥ 12 June 2006	Fire pump	
IES-10FPW3396		≤ 500bhp (260)	New	≥ 12 June 2006	Fire pump	
IES-113FPO19RSA		≤ 500bhp (90)	New	≥ 12 June 2006	Fire pump	
IES-12FPO19RSB		≤ 500bhp (112)	New	≥ 12 June 2006	Fire pump	
IES-13FPO19F3		≤ 500bhp (113)	New	≥ 12 June 2006	Fire pump	
IES-14FPF4706A		≤ 500bhp (288)	New	≥ 12 June 2006	Fire pump	
IES-15FPF4706B		≤ 500bhp (288)	New	≥ 12 June 2006	Fire pump	

The engines listed in Table 5 are subject to limited or no requirements under Subpart ZZZZ

Table 5: Summary of Subpart ZZZZ Applicability for New and existing CI RICE						
Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements Do not have to meet the requirements of Subpart ZZZZ or Subpart A of this Part. No initial notification is necessary
IES-5G	U-1704 (U-1605)	> 500bhp (724)	Existing	< 19 Dec. 2002	Emg.	
ES-10PSG		> 500bhp	Existing	< 19 Dec. 2002	Emg.	
ES-11PSG		> 500bhp	Existing	< 19 Dec. 2002	Emg.	
ES-12PSG		> 500bhp	Existing	< 19 Dec. 2002	Emg.	
ES-16PSG						
ES-13PSG		> 500bhp	Existing	< 19 Dec. 2002	Emg.	
ES-24G	4-2811	> 500bhp (1710)	Existing	< 19 Dec. 2002	Emg.	
ES-25G	4-2811	> 500bhp (1710)	Existing	< 19 Dec. 2002	Emg.	
ES-26G	4-2811	> 500bhp (1710)	Existing	< 19 Dec. 2002	Emg.	
ES-32G	V-3308	> 500bhp (2012)	Existing	< 19 Dec. 2002	Emg.	
IES-103G	3-3242	> 500bhp (536)	Existing	< 19 Dec. 2002	Emg.	
IES-104G	O-1900-N	> 500bhp (671)	Existing	< 19 Dec. 2002	Emg.	
IES-141G		> 500bhp (671)	Existing	< 19 Dec. 2002	Emg.	
IES-142G		> 500bhp (671)	Existing	< 19 Dec. 2002	Emg.	

The engines listed in Table 5 are subject to limited or no requirements under Subpart ZZZZ

Table 5: Summary of Subpart ZZZZ Applicability for New and existing CI RICE (Continued)

Permit ID	Building / Description	Hp Rating	Class		Mode	Subpart ZZZZ Requirements
ES-33G	4-2811	> 500bhp (2347)	New	< 19 Dec. 2002	Emg.	Do not have to meet the requirements of Subpart ZZZZ or Subpart A of this Part except for the initial notification requirements of §63.6645(f)
ES-37G	3-2147	> 500bhp (1676)	New	≥ 19 Dec. 2002	Emg.	
ES-38G	3-2740	> 500bhp (805)	New	≥ 19 Dec. 2002	Emg.	
ES-41G	O-1900-M	> 500bhp (1341)	New	≥ 19 Dec. 2002	Emg.	
ES-42G	O-1900-M	> 500bhp (1341)	New	≥ 19 Dec. 2002	Emg.	
ES-43G	3-1854	> 500bhp (1006)	New	≥ 19 Dec. 2002	Emg.	
ES-44G	3-2243	> 500bhp (671)	New	≥ 19 Dec. 2002	Emg.	
ES-46G	3-2744	> 500bhp (610)	New	≥ 19 Dec. 2002	Emg.	
ES-47G	3-1333	> 500bhp (603)	New	≥ 19 Dec. 2002	Emg.	
ES-80G	FORSCOM HQ	> 500bhp (4157)	New	≥ 19 Dec. 2002	Emg.	
ES-81G	FORSCOM HQ	> 500bhp (4157)	New	≥ 19 Dec. 2002	Emg.	
ES-82G	FORSCOM HQ	> 500bhp (4157)	New	≥ 19 Dec. 2002	Emg.	
ES-83G	FORSCOM HQ	> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-84G	FORSCOM HQ	> 500bhp (1073)	New	≥ 19 Dec. 2002	Emg.	
ES-86G	FORSCOM HQ	> 500bhp (1073)	New	≥ 19 Dec. 2002	Emg.	
ES-87G	PN-66444	> 500bhp (1073)	New	≥ 19 Dec. 2002	Emg.	
ES-88G	PN-66443	> 500bhp (1006)	New	≥ 19 Dec. 2002	Emg.	
ES-89G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-90G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-91G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-92G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-93G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
ES-94G		> 500bhp (3353)	New	≥ 19 Dec. 2002	Emg.	
IES-7G	3-2744	> 500bhp (610)	New	≥ 19 Dec. 2002	Emg.	
IES-102G	3-2042	> 500bhp (536)	New	≥ 19 Dec. 2002	Emg.	
IES-106G	3-1750	> 500bhp (557)	New	≥ 19 Dec. 2002	Emg.	
IES-110G	SOTF-JSOC	> 500bhp (805)	New	≥ 19 Dec. 2002	Emg.	
IES-142G		> 500bhp (805)	New	≥ 19 Dec. 2002	Emg.	

- N. One natural gas, No. 2 fuel oil-fired cogeneration turbine (60.32 million Btu per hour maximum heat input, 5.0 megawatt electrical output, NSPS Subpart GG, ID No. ES-33B) along with one heat recovery steam generation unit with supplemental heat (natural gas-fired, 61.2 million Btu per hour maximum heat input, NSPS Subpart Dc, ID No. ES-34B)

Steam Generation Unit

1. 15A NCAC 2D. 0503: Particulate emissions
2. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources
3. 15A NCAC 2D .0524: NSPS, Subpart Dc - Visible Emissions
4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance of NOx

Turbine

1. 15A NCAC 2D. 0524: NSPS Subpart GG-Sulfur dioxide
2. 15A NCAC 2D .0521: Visible Emissions
3. 15A NCAC 2D. 0524: NSPS Subpart GG-NOx
4. 15A NCAC 2D .0530 and 2Q .0317: PSD Avoidance of NOx

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. Turbine (ID No. ES-33B) is a lean premix gas-fired/No. 2 fuel oil-fired turbine, and is therefore part of the category that EPA has issued a “stay” as far as applicability to the Combustion MACT, Subpart YYYYY, when firing only natural gas. There is also a section in the preamble (Federal Register/Volume 69, No. 67 Wednesday, April 7, 2004/Proposed Rules, page 18330) of this MACT that states: “for the purposes of the MACT standards, stationary combustion turbines have been divided into eight sub-categories. Four of the subcategories are the subject of the proposed de-listing rule: (1) Stationary lean premix combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than 1,000 hours annually (also referred to as “lean premix gas-fired turbines)”. This statement indicates that the lean mix oil-fired turbines (operating on oil less than a 1000 hours per year) are also called and categorized as “lean premix gas-fired turbines”. Therefore, turbine (ID No. ES-33B) is not subject to Subpart YYYYY, at this time.

The final rule for 40 CFR Part 63, Subpart YYYYY was amended on August 18, 2004 (Federal register, Volume 69, No. 159/Wednesday, August 18, 2004, page 51184) to state the following (page 51188): startup of a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine must comply with the initial notification requirements set forth in §63.6145 but need not comply with any other requirements of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register.

Existing turbines (commenced construction prior to January 13, 2003) in all subcategories do not have to meet the requirements of Subpart YYYYY.

No additional monitoring, recordkeeping, or reporting is required.

- O. Five filter-type paint spray booths (ID Nos. ES-01C, ES-02C, ES-04C, ES-05C, and ES-08C), one dry filter-type paint spray booth using non-reactive water reducible Chemical Agent Resistant Coatings only (ID No. ES-09C) along with natural gas-fired bake ovens
 - 1. 15A NCAC 2D .0958: Volatile Organic Compounds
 - 2. 15A NCAC 2D .0515: Particulate
 - 3. 15A NCAC 2D .0521: Visible Emissions
 - 4. 15A NCAC 2D .0711: Toxic Air Pollutants
 - 5. 15A NCAC 2D .1111: MACT, Subpart GG, Hazardous Air Pollutants

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping, or reporting is required.

- P. One dry filter-type paint spray booth (ID No. ES-10C, MACT Subpart GG), using epoxy primer and Chemical Agent Resistant Coating (CARC), with one natural gas-fired make up air heater (3.3 million Btu per hour maximum heat input, ID No. ES-10H), controlled by one natural gas-fired thermal oxidizer (1.2 million Btu per hour maximum heat input, ID No. CD-10C), Building P-3354.
 - 1. 15A NCAC 2D .0958: Volatile Organic Compounds
 - 2. 15A NCAC 2D .0515: Particulate
 - 3. 15A NCAC 2D .0521: Visible Emissions
 - 4. 15A NCAC 2D .1111: MACT, Subpart GG, Hazardous Air Pollutants

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because the before control emissions are less than 100 tons for the pollutant emission unit. No additional monitoring, recordkeeping, or reporting is required.

Q. Two diesel vehicle engine test stands (ES-01E and ES-02E) located at Maintenance Management Division

1. 15A NCAC 2D .0516: Sulfur Dioxide Emissions From combustion Sources

No regulatory review is required for the regulation listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because there are no control devices. No additional monitoring, recordkeeping, or reporting is required.

R. One paper pulverizer (maximum 2000 lbs per hour input, ES-01P) with associated bagfilter (612 square feet of surface area)

1. 15A NCAC 2D .0515: Particulate

2. 15A NCAC 2D .0521: Visible Emissions

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. CAM under 15A NCAC 2D .0614 does not apply because the PM10 emissions prior to control are less than 100 tons per year. No additional monitoring, recordkeeping, or reporting is required..

S. Plasma Arc Cutter (ES-01PC) with a cartridge filter dust collector (CD-01PC) located in Building O-190-R61

1. 15A NCAC 2D .0515: Particulate

2. 15A NCAC 2D .0521: Visible Emissions

3. 15A NCAC 2D .1100: Toxic Air Pollutants

No regulatory review is required for the regulations listed above at this time since there are no new sources being added for this renewal application. Air toxic air pollutants were modeled in the previous revision.

VIII. Source-by Source Evaluation for Modification request in BRAC application 2600102.10D:

A. The paint spray booth for transportation vehicles (ES-11C) with associated panel filters (CD-A10) that is listed in Section II. D. of this engineering review, is currently permitted on the Pope Field Air Permit as ID No. A-10. This existing source is being transferred to the Fort Bragg Title V Permit. There is no increase in emissions.

B. The sources listed in Section II. E. of this engineering review are insignificant sources that are currently permitted on the Pope Field Air Permit. These sources are being transferred to the Fort Bragg insignificant activities list. There is no increase in emissions from these sources.

C. The insignificant boilers and heaters listed in Sections II E. and F. of this review are evaluated below. The heat input from all 72 natural gas-fired boilers will be reviewed in accordance with 15A NCAC 2D .0503.

1. Description: All of the boilers and heaters at Fort Bragg are used for domestic purposes only and not to heat process water. Historically the Division of Air Quality has permitted comfort heat boilers at military bases and universities because of the size and the large number of boilers.

The boilers listed in Section II. F., Table 3 of this review, are not associated with the BRAC project and will be added to the Fort Bragg Air Permit as a new insignificant sources. These boilers are funded separately under a variety of ongoing projects at Fort Bragg and are therefore evaluated individually, with the exception of the four boilers at JSOC J1B and JSOC JC4. This last group of boilers in JSOC J1B and JC4 are funded under two separate projects.

Applicable Regulatory Requirements: Even though these boilers qualify for the insignificant activities list, they are still subject to 15A NCAC 2D .0503, .0516, and .0521. NSPS Subpart Dc does not apply because each of the units is less than 10 million Btu per hour heat input. When Fort Bragg submits their facility wide toxics demonstration as a result of the recent removal of the combustion source exemption for toxic air pollutant review, these boilers will be added to the table of permitted sources and the Multiple Emissions "Air Toxic Modeling" Section of the Tile V Permit.

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.19 lbs per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	Compliance schedule (Section XIII)	15A NCAC 2D .0702(18) 15A NCAC 2D .1100

Because these boilers are not subject to NSPS, Subpart Dc particulate emission rates will have allowable emission rates in accordance with 15A NCAC 2D .0503 (e). Per this regulation, the maximum heat input shall be the total heat content of all fuels that are burned in a fuel burning indirect heat exchanger, of which the combustion products are emitted through a stack or stacks. The sum of maximum heat input of all fuel burning indirect heat exchangers at a plant site that are in operation, under construction, or permitted pursuant to 15A NCAC 2Q, shall be considered as the total heat input for the purpose of determining the allowable emission limit for particulate matter for each fuel burning indirect heat exchanger. Fuel burning indirect heat exchangers constructed or permitted after February 1, 1983, shall not change the allowable emission limit of any fuel burning indirect heat exchanger whose allowable emission limit has previously been set.

The removal of a fuel burning indirect heat exchanger shall not change the allowable emission limit of any fuel burning indirect heat exchanger whose allowable emission limit has previously been established. However, for any fuel burning indirect heat exchanger constructed after, or in conjunction with, the removal of another fuel burning indirect heat exchanger at the plant site, the maximum heat input of the removed fuel burning indirect heat exchanger shall no longer be considered in the determination of the allowable emission limit of any fuel burning indirect heat exchanger constructed after or in conjunction with the removal.

Boilers ES-01B, ES-02B, ES-03B, ES-04B, ES-05B, ES-13B, and ES-14B were removed in revision T33. Boilers ES-15B, ES-16B, ES-17B, ES-18B, ES-20B and ES-21B were removed in revision T30. As such, the heat inputs for these boilers are not required to be included in the total heat input to calculate the allowable emission rate for the insignificant activity boilers.

- a. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS
 - i. Emissions of particulate matter from the combustion of natural gas, No. 2 fuel oil, and recycled No. 2 fuel oil that are discharged from this source into the atmosphere shall not exceed 0.183 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Boilers currently permitted at Fort Bragg and the new boilers per this application

Boiler ID No.	mmBtu/hr heat input rating	Type of fuel	Comments
Numerous small boilers (ID No. ES-00B) on Permit Revision T33	Total heat input of 75 boilers = 180 mmBtu/hr	Natural gas/No. 2 fuel oil	Insignificant Activity
Numerous small boilers (ID No. ES-00B) on this Permit revision	Total heat input for 72 new boilers in this application = 67.0 mmBtu/hr	Natural gas-fired	Insignificant Activity

Boilers currently permitted at Fort Bragg and the new boilers per this application

Boiler ID No.	mmBtu/hr heat input rating	Type of fuel	Comments
ES-11B	25.0	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-12B	25.0	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-22B, NSPS	12.6	Natural gas	Currently permitted
ES-23B, NSPS	12.6	Natural gas	Currently permitted
ES-24B, NSPS	23.4	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-25B, NSPS	23.4	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-26B, NSPS	10.0	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-27B	20	Natural gas	Currently permitted
ES-28B	20	Natural gas	Currently permitted
ES-29B, NSPS	72.3	Nat. gas/No. 2 fuel oil/ Recycled No. 2 fuel oil	Currently permitted
ES-30B	8.3	Diesel fuel fired	Currently permitted
ES-31B	8.3	Diesel fuel fired	Currently permitted
ES-32B	8.3	Diesel fuel fired	Currently permitted
ES-34B, NSPS	61.2 heat recovery steam generator	Natural gas/No. 2 fuel oil	Currently permitted
ES-35B	72.3	Natural gas/No. 2/ recycled oil	Currently permitted
ES-36B	10.5	Natural gas/No. 2	Currently permitted
ES-37B	10.5	Natural gas/No. 2	Currently permitted
ES-38B	10.5	Natural gas/No. 2	Currently permitted
ES-39B	10.5	Natural gas/No. 2	Currently permitted
ES-40B	8.4	Natural gas/No. 2	Currently permitted
ES-41B	8.4	Natural gas/No. 2	Currently permitted
ES-42B	8.4	Natural gas/No. 2	Currently permitted
ES-43B	8.4	Natural gas/No. 2	Currently permitted
ES-44B	45.42	No. 2/natural gas	Currently permitted
ES-45B	45.42	No. 2/natural gas	Currently permitted
ES-46B	45.42	No. 2/natural gas	Currently permitted
ES-TEMPBOIL	100	Natural gas/No. 2	Currently permitted
ES-FORSCOM1	3.0	Natural gas/No. 2	Currently permitted
ES-FORSCOM2	3.0	Natural gas/No. 2	Currently permitted
ES-FORSCOM3	3.0	Natural gas/No. 2	Currently permitted
Total Heat Input	970.1 million Btu per hour heat input currently located at this facility including the new boilers in this modification.		

$$E = 1.090 \times Q^{-0.2594} \quad \text{Where: } E = \text{allowable PM emission rate in lbs/mmBtu heat input}$$

$$Q = \text{maximum heat input rate in million Btu per hour}$$

$$E = 1.090 \times Q^{-0.2594}$$

$$E = 1.090 \times (970.2)^{-0.2594}$$

$$E = 0.183 \text{ pounds per million Btu heat input}$$

Example calculation: All 72 boilers are fired with natural gas only.

The particulate matter emission rate from the burning of natural gas in any boiler was estimated using AP-42 factors, Supplement E, revised 9/98, a heating value of 1020 Btu per cubic foot of natural gas.

$$\frac{7.6 \text{ lbs PM}}{10^6 \text{ cubic feet}} \times \frac{1 \text{ cubic foot natural gas}}{1020 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{\text{million Btu}} = 0.0074 \frac{\text{lbs PM}}{\text{million Btu}}$$

Compliance is indicated when any of the boilers burn natural gas, since the actual emission rate (0.0074 lbs PM million Btu heat input) is less than the allowable emission rate (0.183 lbs PM per million Btu heat input).

Testing [15A NCAC 2D .0501(c)(3)]

- ii. If emission testing is required, the testing shall be performed in accordance General Condition JJ located in Section 3 of the Air Permit. If the results of this test are above the limit given in Section VI. A. 2. a. i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring [15A NCAC 2Q .0508(f)]

- iii. No monitoring, recordkeeping, or reporting is required for particulate emissions from the firing of natural gas in any boiler.

b. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- i. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

Testing [15A NCAC 2D .2601]

- ii. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3 of the Permit. If the results of this test are above the limit given in Section V. 2. b. i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

$$\frac{0.6 \text{ lbs SO}_2}{10^6 \text{ cubic feet natural gas}} \times \frac{1 \text{ cubic foot natural gas}}{1020 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{\text{million Btu}} = 0.00058 \frac{\text{lbs PM}}{\text{million Btu}}$$

Compliance is indicated when any boiler burns natural gas since the actual emission rate (0.00058 lbs SO₂ million Btu heat input) is less than the allowable emission rate (2.3 lbs SO₂ per million Btu heat input).

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .2601]

- iii. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in any boiler.

c. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

i. Visible emissions from any boiler (ID No. IES-001B) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 02D .2601]

ii. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section V.A.2.c.i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

iii. Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of natural gas in any boiler.

d. PSD EVALUATION:

Due to the operational tempo and structure of this military facility, projects are frequently initiated and funded separately by various different tenants who all fall under the ownership of Fort Bragg Army Post. These projects are appropriated separately by Congress, the emissions are calculated separately for each funding code, and evaluated independently against the PSD major modification thresholds.

Fort Bragg is currently a major source for PSD. As such, the emissions from new modifications are evaluated against the PSD Significance levels. Even if the boilers were to be considered one project, the total heat input for all of the boilers would have to be greater than 90 million Btu per hour in order for the worse case pollutant (NOx) to exceed the PSD Significance threshold (40 tpy). None of the funded projects in this application modification reach this total heat input amount. Therefore, no PSD avoidance condition is required for any of these projects. No further PSD analysis needs to be performed.

Example calculation using a theoretical 90 mmBtu per hour heat input

$$\frac{100 \text{ lbs NOx}}{10^6 \text{ ft}^3 \text{ natural gas}} \times \frac{1 \text{ ft}^3 \text{ natural gas}}{1020 \text{ Btu}} \times \frac{90 \times 10^6 \text{ Btu}}{\text{hour}} \times \frac{1 \text{ ton NOx}}{2000 \text{ lbs NOx}} \times \frac{8760 \text{ hours}}{\text{year}} = 38.65 \frac{\text{tons NOx}}{\text{year}}$$

Pollutant	Emission Rate From a Combined heat of 90 mmBtu per hour (tpy)	PSD Major Significance Level (tons/yr)	Review Required (Yes/No)
NOx	38.65 tpy	40	No
PM (TSP)	2.9 tpy	25	No
PM ₁₀	2.9 tpy	15	No
PM _{2.5}	2.9 tpy	15	No
SO ₂	0.23 tpy	40	No
CO	32 tpy	100	No
VOCs	2.1 tpy	40	No
Lead	0 tpy	0.6	No

D. Paint Booth (ES-12C, MACT Subpart GG)

1. Description: Paint booth (ES-07C) is currently permitted at Fort Bragg. This booth will be demolished and replaced with a new paint booth (ES-12C). This new booth will be a Model DD 2026-9 RE down-draft paint booth approximately 20.6 feet wide x 26 feet long x 9 feet high. This booth will contain HVLP spray gun hookups that are used to coat military aerospace equipment. The new booth is subject to the provisions outlined in the National Emission Standards for Hazardous Air Pollutants for Aerospace Manufacturing and Rework Facilities (40 CFR 63, Subpart GG).
2. Applicable Regulatory Requirements: This booth is subject to the 20 percent opacity, air toxic regulations, MACT regulations, and miscellaneous particulate emissions.

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in ton/hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Volatile organic compounds	Operational and work practice standards of the MACT	15A NCAC 2D .1111 40 CFR Part 63, Subpart GG
HAPs	Operational and work practice standards of the MACT	
Toxic air pollutants	Compliance schedule (Section XIII)	15A NCAC 2D .1100

- a. 15A NCAC 2D .0515: Particulates From Miscellaneous Industrial Processes
 - i. Emissions of particulate matter from paint booth (ID No. ES-12C) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Compliance is expected due to the weight of the military aerospace equipment and the high efficiency filters that are inherent to the booth.

Testing [15A NCAC 2D .0501 (c)(3)]

- ii. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section VI. B. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAD 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- iii. The Permittee shall maintain production records that specify the types of finishes and materials processed and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

- b. 15A NCAC 2D .0521: Control Of Visible Emissions

- i. Visible emissions from the paint spray booth (ID No. ES-12C) shall not be more than 20 percent opacity each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

- ii. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ of the Permit. If the results of this test are above the limit given in Section VI. B. 2. b. i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- iii. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish “normal” for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section VI. B. 2. b. i. above in this building. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

- iv. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - (A) the date and time of each recorded action;
 - (B) the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - (C) the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- v. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- c. 40 CFR Part 63, Subpart GG, “National Emission Standards For Aerospace Manufacturing and Rework Facilities”

The Permittee shall comply with all applicable provisions, including the reporting, recordkeeping and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart GG “National Emission Standards for Aerospace Manufacturing and Rework Facilities”, including Subpart A “General Provisions.”

E. Paint Booth (ES-11C)

- 1. Description: This booth is located in building 554 and will be used to paint military ground transport vehicles. This booth will contain HVLP spray gun hookups.
- 2. Applicable Regulatory Requirements: This booth is subject to the 20 percent opacity, air toxic regulations, and miscellaneous particulate emissions.

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in ton/hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Volatile organic compounds	Work practice standards	15A NCAC 2D .0958
Toxic air pollutants	Compliance schedule (Section XIII)	15A NCAC 2D .1100

- a. 15A NCAC 2D .0515: Particulates From Miscellaneous Industrial Processes
 - i. Emissions of particulate matter from paint booth (ID No. ES-12C) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Compliance is expected due to the weight of the military aerospace equipment and the high efficiency filters that are inherent to the booth.

Testing [15A NCAC 2D .0501 (c)(3)]

- ii. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section VI. E. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAD 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- iii. The Permittee shall maintain production records that specify the types of finishes and materials processed and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

- b. 15A NCAC 2D .0521: Control Of Visible Emissions

- i. Visible emissions from the paint spray booth (ID No. ES-12C) shall not be more than 20 percent opacity each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

- ii. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ of the Permit. If the results of this test are above the limit given in Section VI. B. 2. b. i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- iii. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section VI. B. 2. b. i. above in this building. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

- iv. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - (A) the date and time of each recorded action;
 - (B) the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - (C) the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- v. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- c. 15A NCAC 2D .0958: Work Practices For Sources Of Volatile Organic Compounds
 - i. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
 - (A) store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
 - (B) clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
 - (C) store wipe rags containing volatile organic compounds in closed containers,
 - (D) not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
 - (E) transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
 - (F) clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]

- ii. When cleaning parts with a solvent containing a volatile organic compound, the Permittee shall:
 - (A) flush parts in the freeboard area,
 - (B) take precautions to reduce the pooling of solvent on and in the parts,
 - (C) tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
 - (D) not fill cleaning machines above the fill line,
 - (E) not agitate solvent to the point of causing splashing. [15A NCAC 2D .0958(d)]

Monitoring

- iii. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Recordkeeping

- iv. The results of the inspections shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each inspection; and
 - ii. the results of each inspection noting whether or not noncompliant conditions were observed.If the required records are not maintained, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Reporting

- v. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- d. 40 CFR Part 63, Subpart GG, "National Emission Standards For Aerospace Manufacturing and Rework Facilities"

The Permittee shall comply with all applicable provisions, including the reporting, recordkeeping and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities", including Subpart A "General Provisions."

- F. Insignificant Internal Combustion Engines less than 500 horse power (Diesel Fuel-Fired Emergency Generators):
 - IES-119G (Diesel fuel-fired, 35 kW, 47 hp)
 - IES-129G (Diesel fuel-fired, 100 kW, 134 hp)
 - IES-137G (Diesel fuel-fired, 215 kW, 288 hp)
 - IES-138G (Diesel fuel-fired, 215 kW, 288 hp)

1. Description:

These emergency generators are fired by Diesel fuel only. The maximum operation of each emergency generator shall not exceed 500 hours per the 1995 EPA guidance from John S. Seitz, Director of the Office of Air Quality Planning and Standards. Emissions from the generators are uncontrolled.

2. Applicable Regulatory Requirements: The generators listed in Section II. F will be classified and insignificant activities in this modification and will be listed on the insignificant activities list. This facility has already triggered a facility wide toxics evaluation as will perform modeling in accordance with Section 2.3 of the Air Permit. When the facility wide toxics demonstration and modeling is performed all of the insignificant emergency generators will be removed from the insignificant activities list and placed into the body of the Air Permit

NSPS, Subpart IIII, does apply to each of these generators, and they are also subject to MACT, Subpart ZZZZ. Subpart ZZZZ was revised, and re-published in the Federal Register on January 18, 2008 with an effective date of March 18, 2008. This revision included engines with capacities greater than 500 brake horsepower and engines with capacities less than 500 brake horsepower located at major sources of HAP emissions.

Per 40 CFR §63.6590(a)(2)(ii), a stationary RICE with a capacity equal to or less than 500 brake horsepower located at a major source of HAP emissions is considered new if it commenced construction (on-site fabrication) on or after June 12, 2006.

Per 40 CFR §63.6590(c) “Stationary RICE Subject to the Regulations Under 40 CFR Part 60”, new emergency compression ignition generators less than 500 brake horsepower site rating must only meet the requirements of NSPS, Subpart IIII.

The following provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	Burn fuel that contains less than 15 parts per million sulfur content	15A NCAC 2D .0524 40 CFR Part 60 Subpart IIII
Hazardous Air Pollutants	Initial notification requirements and/or meet the requirements of NSPS IIII	15A NCAC 2D .1111 40 CFR Part 63, Subpart ZZZZ
NMHC + NOx, HC, NOx, CO, PM	Purchase engine certified to meet the applicable engine design emission limits	15A NCAC 2D .0524 40 CFR Part 60 Subpart IIII
Toxic air pollutants	Compliance schedule (Section XIII)	15A NCAC 2D .0702(18) 15A NCAC 2D .1100

a. 15A NCAC 2D .0524, NSPS, 40 CFR Part 60, Subpart IIII, “Sulfur Dioxide Emissions”

Regulation Analysis:

- i. Each generator shall burn fuel that contains less than 15 parts per million sulfur content.
- ii. Emergency generators may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- iii. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in any emergency generator.

b. 15A NCAC 2D .0521"Control Of Visible Emissions”

Regulation Analysis:

- i. Generators will be installed after July 1, 1971, and each is therefore subject to the State regulation 15A NCAC 2D .0521(d). Per this regulation visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period except that six-minute periods averaging more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period for each boiler.

Compliance is expected with this regulation because all of the generators will be firing diesel fuel.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- ii. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel in any generator because it should always be in compliance with the opacity standard during normal operation.

- c. 15A NCAC 2D .1111, 40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants For Reciprocating Internal Combustion Engines

i. General Provisions [40 CFR §63.6665]:

The Permittee shall comply with the requirements of 40 CFR part 63 Subpart A “General provisions,” according to the applicability of Subpart A to such sources, as identified in Table No. 8 in Subpart ZZZZ, “Applicability Of General Provisions to Subpart ZZZZ”.

ii. Compliance/Notification Procedures [40 CFR §63.6645]

Per 40 CFR §63.6590(c) “Stationary RICE Subject Regulations Under 40 CFR Part 60”, new emergency compression ignition generators less than 500 brake horsepower site rating must only meet the requirements of NSPS, Subpart III.

Per 40 CFR §63.6590(c) “Stationary RICE Subject Regulations Under 40 CFR Part 60”, new compression ignition generators less than 500 brake horsepower site rating must only meet the requirements of NSPS, Subpart III.

Per 40 CFR §63.6590(b)(i) “Stationary RICE Subject to limited Requirements” a new emergency generator with a site rating greater than 500 brake horsepower located at a major source of HAP emissions does not have to meet the requirements of Subpart ZZZZ or Subpart A of this part except for the initial notification requirements of 63.6645(f)

The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after startup of the emergency generator and shall provide the following:

- (A) The name and address of the owner or operator;
- (B) The address (i.e., physical location) of the affected source;
- (C) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source’s compliance date;
- (D) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted;
- (E) A statement of whether the affected sources is a major source or an area source.
- (F) A statement that each generator has no additional requirements and explain the basis for the exclusion (for example, that the units operate exclusively as emergency stationary RICE).

iii. Recordkeeping Requirement For Applicability Determination [40 CFR §63.10(b)(3)]

The applicability determination for exclusion of these emergency generators from the requirements of 40 CFR Part 63, Subpart ZZZZ and Subpart A of this part, shall be maintained on site for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The analyses, or other information, that demonstrates the exemption from the requirements of Subpart ZZZZ and part A of this subpart, shall be signed by the person making the determination.

iv. Monitoring/Reporting [15A NCAC 2Q .0508(f)]

- Owner/operators who purchase an emergency generator that is less than 30 liters per cylinder must purchase units that are certified by the manufacturer to meet the applicable engine design emission limits. {§60.4211 (c)}.
- Owners/operators must operate and maintain engines and control devices in accordance with the manufacturer’s written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the life of the engine. {§60.4206 and §60.4211 (a)}.

- No testing is required for units less than 30 liter per cylinder displacement that have been certified by the manufacturer to meet design limits.
- Install a nonresettable hour meter {§60.4209(a)}.

G. Internal Combustion Engines greater than 500 horsepower (Diesel Fuel-Fired Emergency Generators):

- ES-89G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC J1B
- ES-90G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC J1B
- ES-91G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC C4
- ES-92G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC C4
- ES-93G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC C4
- ES-94G (Diesel fuel-fired, 2000 kW, 2682 hp) Funded under project code JSOC C4

1. Description:

These emergency generators are fired by Diesel fuel only. The maximum operation of each emergency generator shall not exceed 500 hours per the 1995 EPA guidance from John S. Seitz, Director of the Office of Air Quality Planning and Standards. Emissions from the generators are uncontrolled.

2. Applicable Regulatory Requirements: The generators listed in Section II. F will be classified and insignificant activities in this modification and will be listed on the insignificant activities list. This facility has already triggered a facility wide toxics evaluation as will perform modeling in accordance with Section 2.3 of the Air Permit. When the facility wide toxics demonstration and modeling is performed all of the insignificant emergency generators will be removed from the insignificant activities list and placed into the body of the Air Permit

NSPS, Subpart IIII, does apply to each of these generators, and they are also subject to MACT, Subpart ZZZZ. Subpart ZZZZ was revised, and re-published in the Federal Register on January 18, 2008 with an effective date of March 18, 2008. This revision included engines with capacities greater than 500 brake horsepower and engines with capacities less than 500 brake horsepower located at major sources of HAP emissions.

Per 40 CFR §63.6590(a)(2)(i), a stationary RICE with a capacity greater than 500 brake horsepower located at a major source of HAP emissions is considered new if it commenced construction (on-site fabrication) on or after December 19, 2002.

Per 40 CFR §63.6590(b)(i) “Stationary RICE Subject to the limited Requirements” a new emergency generator with a site rating greater than 500 brake horsepower located at a major source of HAP emissions does not have to meet the requirements of Subpart ZZZZ or Subpart A of this part except for the initial notification requirements of 63.6645(f).

The following provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	Burn fuel that contains less than 15 parts per million sulfur content	15A NCAC 2D .0524 40 CFR Part 60 Subpart IIII
Hazardous Air Pollutants	Initial notification requirements	15A NCAC 2D .1111 40 CFR Part 63, Subpart ZZZZ
NMHC + NO _x , HC, NO _x , CO, PM	Purchase engine certified to meet the applicable engine design emission limits	15A NCAC 2D .0524 40 CFR Part 60 Subpart IIII
Nitrogen oxides	Less than 39.62 tons per consecutive 12 month period	15A NCAC 2Q .0317 of 2D .0530 PSD Avoidance
Toxic air pollutants	Compliance schedule (Section XIII)	15A NCAC 2D .0702(18) 15A NCAC 2D .1100

- a. 15A NCAC 2D .0524, NSPS, 40 CFR Part 60, Subpart III, "Sulfur Dioxide Emissions"

Regulation Analysis:

- i. Each generator shall burn fuel that contains less than 15 parts per million sulfur content.
- ii. Emergency generators may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- iii. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in any emergency generator.

- b. 15A NCAC 2D .0521 "Control Of Visible Emissions"

Regulation Analysis:

- i. Generators will be installed after July 1, 1971, and each is therefore subject to the State regulation 15A NCAC 2D .0521(d). Per this regulation visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period except that six-minute periods averaging more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period for each boiler.

Compliance is expected with this regulation because all of the generators will be firing diesel fuel.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- ii. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel in any generator because it should always be in compliance with the opacity standard during normal operation.

- c. 15A NCAC 2D .1111, 40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants For Reciprocating Internal Combustion Engines

- i. General Provisions [40 CFR §63.6665]:

The Permittee shall comply with the requirements of 40 CFR part 63 Subpart A "General provisions," according to the applicability of Subpart A to such sources, as identified in Table No. 8 in Subpart ZZZZ, "Applicability Of General Provisions to Subpart ZZZZ".

- ii. Compliance/Notification Procedures [40 CFR §63.6645]

Per 40 CFR §63.6590(c) "Stationary RICE Subject Regulations Under 40 CFR Part 60", new emergency compression ignition generators less than 500 brake horsepower site rating must only meet the requirements of NSPS, Subpart III.

Per 40 CFR §63.6590(c) "Stationary RICE Subject Regulations Under 40 CFR Part 60", new compression ignition generators less than 500 brake horsepower site rating must only meet the requirements of NSPS, Subpart III.

Per 40 CFR §63.6590(b)(i) "Stationary RICE Subject to limited Requirements" a new emergency generator with a site rating greater than 500 brake horsepower located at a major source of HAP emissions does not have to meet the requirements of Subpart ZZZZ or Subpart A of this part except for the initial notification requirements of 63.6645(f)

The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after startup of the emergency generator and shall provide the following:

- (A) The name and address of the owner or operator;
- (B) The address (i.e., physical location) of the affected source;
- (C) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (D) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted;
- (E) A statement of whether the affected sources is a major source or an area source.
- (F) A statement that each generator has no additional requirements and explain the basis for the exclusion (for example, that the units operate exclusively as emergency stationary RICE).

iii. Recordkeeping Requirement For Applicability Determination [40 CFR §63.10(b)(3)]

The applicability determination for exclusion of these emergency generators from the requirements of 40 CFR Part 63, Subpart ZZZZ and Subpart A of this part, shall be maintained on site for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The analyses, or other information, that demonstrates the exemption from the requirements of Subpart ZZZZ and part A of this subpart, shall be signed by the person making the determination.

iv. Monitoring/Reporting [15A NCAC 2Q .0508(f)]

- Owner/operators who purchase an emergency generator that is less than 30 liters per cylinder must purchase units that are certified by the manufacturer to meet the applicable engine design emission limits. {§60.4211 (c)}.
- Owners/operators must operate and maintain engines and control devices in accordance with the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the life of the engine. {§60.4206 and §60.4211 (a)}.
- No testing is required for units less than 30 liter per cylinder displacement that have been certified by the manufacturer to meet design limits.
- Install a nonresettable hour meter {§60.4209(a)}.

d. 15A NCAC 2D .0524: NSPS, Standards Of Performance For Stationary compression Ignition Internal Combustion Engines [40 CFR 60 Subpart IIII], (For emergency generator units manufactured after June 12, 2006) -- HC, NO_x, CO, PM

- i. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, including Subpart A "General Provisions." [15A NCAC 2D .0524]

Emission Standards

- ii. The Permittee shall comply with the following emission standards for compression ignition (CI) engines for model year 2007 and later.

Purchase an engine certified to the emission standards in §60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

Exhaust emission standards:

HC: 1.3 g/kW-hr (1.0 g/HP-hr)
NOx: 9.2 g/kW-hr (6.9 g/HP-hr)
CO: 11.4 g/kW-hr (8.5 g/HP-hr)
PM: 0.54 g/kW-hr (0.4 g/HP-hr)
[§60.4205(b), §60.4211(c), and §89.112(a)]

- iii. The Permittee shall use diesel fuel in the CI engine of each emergency generator with a sulfur content of less than 15 ppm beginning October 1, 2010. [§60.4207, and §80.510(a) and (b)]

Testing [15A NCAC 2Q .0508(f)]

- iv. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring [15A NCAC 2Q .0508(f)]

- v. Owners and operators of CI internal combustion engines (ICE) must operate and maintain stationary CI ICE that achieve the emissions standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section are not met. [§60.4206 and §60.4211(a)]
- iv. The CI emergency generator shall be equipped with a non-resettable hour meter prior to startup. If the CI engine of each emergency generator is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524. [§60.4209(a)]
- vii. The Permittee may operate the CI emergency generator for maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for the CI engine in the emergency generator, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section are not met. [§60.4211(e)]

Recordkeeping [15A NCAC 2Q .0508(f)]

- viii. Starting with emergency generator model year 2011, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the nonresettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained. [§60.4214(b)]

Reporting [15A NCAC 2Q .0508(f)]

- ix. No initial notification under §60.7 is required for the emergency use CI engines. [§60.4214(b)]
- x. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

e. PSD Evaluation:

The Fort Bragg facility is a major source for PSD emissions. The modifications that occur at the base shall be evaluated against the PSD significance levels. The worst case pollutant from the combustion process will be NOx with a significance level of 40 tons per year.

- i. Project number PN76511, code JSOC J1B will add two new 2000 kW each emergency generators (ES-89G, and 90G) along with 4 new natural gas-fired boilers (2 @ 0.15 mmBtu/hour and 2 @ 0.3 mmBtu/hour).

Since these emergency generators will be certified by the manufacturer to must meet the requirements of NSPS Subpart IIII for Diesel-fired engines, the maximum NOx (worst case pollutant) emissions will be 9.2 grams/kW-hour.

The total NOx emissions from this project (boilers and generators) is less than 40 tons per year (20.67 tpy). Therefore, no PSD avoidance condition needs to be written. See example calculation below.

$$\left[\frac{0.9 \times 10^6 \text{ Btu (total four boilers)}}{\text{hour}} \times \frac{1 \text{ scf}}{1020 \text{ Btu}} \times \frac{100 \text{ lbs NOx}}{1 \times 10^6 \text{ Btu}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \right] = \frac{0.39 \text{ tons NOx}}{\text{year}}$$

$$\left[\frac{9.2 \text{ g}}{\text{kW} - \text{hour}} \times 2000 \text{ kW} \times \frac{1 \text{ lbs NOx}}{453.59 \text{ g}} \right] \times 2 \text{ engines} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \frac{500 \text{ hrs}}{\text{year}} = \frac{20.28 \text{ tons NOx}}{\text{year}}$$

- ii. Project number PN66362, code JSOC C4 will add four new 2000 kW each emergency generators (ES-91G, 92G, 93G, and 94G) along with 4 new natural gas-fired boilers (2 @ 0.15 mmBtu/hour and 2 @ 0.3 mmBtu/hour).

The total NOx emissions from this project (boilers and generators) is greater than 40 tons per year (40.96 tpy). Therefore, a PSD avoidance condition will be placed into the permit.

$$\left[\frac{0.9 \times 10^6 \text{ Btu (total four boilers)}}{\text{hour}} \times \frac{1 \text{ scf}}{1020 \text{ Btu}} \times \frac{100 \text{ lbs NOx}}{1 \times 10^6 \text{ Btu}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \right] = \frac{0.39 \text{ tons NOx}}{\text{year}}$$

$$\left[\frac{9.2 \text{ g}}{\text{kW} - \text{hour}} \times 2000 \text{ kW} \times \frac{1 \text{ lbs NOx}}{453.59 \text{ g}} \right] \times 4 \text{ engines} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \frac{500 \text{ hrs}}{\text{year}} = \frac{40.57 \text{ tons NOx}}{\text{year}}$$

- (A) The amount of annual NOx (0.39 tpy) contributed by the four natural gas-fired boilers is very small and will be subtracted from the total 40 ton per year NOx Avoidance Condition limit as follows:

$$40 \text{ tpy} - 0.39 \text{ tpy} = 39.61 \text{ tpy}$$

In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and modifications, emergency generators (ES-91G, 92G, 93G, and 94G) shall emit to the atmosphere less than 39.61 tons of nitrogen oxides total per consecutive 12-month period calculated using the NSPS Subpart IIII allowable emission limit for NOx.

The applicant wished to track hours of operation for the four emergency generators rather than fuel usage. Since the allowable NSPS emission rate was used in the calculation, the total hours that the four generators can operate before crossing the PSD avoidance limit can be calculated as follows:

The NSPS allowable limit (9.2 grams/kW-hour) = is 0.02 lbs/kW-hour.

$$\frac{39.61 \text{ tons NOx}}{\text{year}} \times \frac{2000 \text{ lb NOx}}{1 \text{ ton NOx}} \times \frac{\text{kW - hour}}{0.02 \text{ lbs NOx}} \times \frac{1 \text{ unit}}{2000 \text{ kW}} = \frac{1980 \text{ hours}}{\text{year}}$$

The total hours that the four emergency generators are capable of operating without exceeding the PSD Avoidance condition is 1980 hours per consecutive 12 month period using the NSPS allowable emissions limit for NOx.

A = hours of operation for ES-91G

B = hours of operation for ES-92G

C = hours of operation for ES-93G

D = hours of operation for ES-94G

$$\sum \text{hoursof operation } A + B + C + D \leq 1980 \text{ hours per consecutive twelve months}$$

Testing [15A NCAC 2Q .0501 (c)(4)]

- iii. If emission testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ. If the results of this test are above the limit given above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

Monitoring/Recordkeeping [15A NCAC 2Q .0508 (f)]

- iv. The Permittee shall keep monthly records of the number of hours of operation of emergency generators (ES-91, 92G, 93G, and 94G) in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the hours of operation are not monitored and recorded.
- v. Hourly usage limits shall be made monthly and recorded in a logbook.

H. Paint Bench (IES-12C)

1. Description:

This is a surface coating operation at the MacRidge Triangle Compound. The operations will consist of aerosol paint application to electronic hard cases and miscellaneous small parts for training purposes. Materials used at this training facility will consist of commercially available paints manufactured by Rustoleum and Krylon.

- 2. Applicable Regulatory Requirements: This source will be permitted in accordance with 15A NCAC 2D .0503(8) and added to the insignificant activities list. Particulate emissions were calculated in Appendix B of the application and estimated to be less than one ton per year and HAPs less than 1000 lbs per year.

VIII. A consistency determination is not required for this renewal application.

IX. An application fee is not required for this renewal application.

X. The appropriate number of copies of the application was received by the DAQ on August 31, 2010.

XI. The application did contain the Reduction and Recycling Form.

XII. The application was signed by an authorized official as defined by 15A NCAC 2Q .0304(j).

XIII. An Air toxics review is required but will be performed in accordance with the toxics compliance schedule listed in Permit revision T35.

XIV. Prevention of Accidental Releases:

This facility is currently an affected source under 40 CFR Part 68, Prevention of Accidental Releases, Section 112(r) of the Clean Air Act because of the amount of chlorine stored and used at the drinking water and wastewater treatment plants. Fort Bragg submitted its initial Risk Management Plan (RMP) to the EPA in June 1999. The 5-year update to the original RMP was submitted to the USEPA on June 21, 2004. A DAQ Form A3 was completed and submitted with this renewal.

XV. Public Notice

A thirty-day public notice is required.

Public notice: The 30-day public notice period was from _____ through _____. ____ public comments were received for this permit application.

EPA 45-Day review Period: The DAQ sent copies of the appropriate information the USEPA on _____. The EPA 45-day review period was from _____ through _____. The USEPA _____ adverse comments on the renewal permit for this facility.

XVI. Recommendations

This renewal permit for the Fort Bragg Military Base, located in Fort Bragg, North Carolina, has been reviewed by the DAQ to determine compliance with all procedures and requirements. The DAQ has determined that this facility is complying or will achieve compliance as specified in the permit with all applicable requirements.

Regional Comments for this permit and review were received in _____ prior to the permit being sent to public notice.

Issue permit No. 04379T35.