

NORTH CAROLINA DIVISION OF AIR QUALITY Air Permit Review – Renewal Permit Issue Date: November xx, 2010			Region: Washington Regional Office County: Craven NC Facility ID: 2500159 Inspector's Name: Robert Bright Date of Last Inspection: 05/13/2011 Compliance Code: 3 / Compliance - inspection		
Facility Data Applicant (Facility's Name): Fleet Readiness Center East Facility Address: Fleet Readiness Center East NC Hwy 101 at US 70W Cherry Point, NC 28533 SIC: 9711 / National Security NAICS: 92811 / National Security Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			Permit Applicability (this application only) SIP: 15A NCAC 2Q .0513 NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A		
Contact Data			Application Data		
Facility Contact Matthew Willis Air Quality Program Mgr. PSC Box 8021 Cherry Point, NC 28533 (252) 464-7046 matthew.willis@navy.mil	Authorized Contact Colonel Mitchell Bauman Commanding Officer PSC Box 8021 Cherry Point, NC 28533 (252) 464-7001	Technical Contact Matthew Willis Air Quality Program Mgr. PSC Box 8021 Cherry Point, NC 28533 (252) 464-7046 matthew.willis@navy.mil	Application Number: 2500159.08B Date Received: 09/29/2008 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 05506T41 Existing Permit Issue Date: 03/10/2011 Existing Permit Expiration Date: 10/31/2015		
Review Engineer: Booker Pullen Regional Engineer: Robert Bright Review Engineer's Signature: _____ Start Date: September 7, 2011			Comments / Recommendations: Issue: 05506T42 Permit Issue Date: November XX, 2011 Permit Expiration Date: October 31, 2016		

I. Introduction:

Fleet Readiness Center East (formerly known as Naval Air Depot) is located in Cherry Point, Craven County, North Carolina at the Marine Corps Air Station. This facility is requesting a "Significant" modification {processed under 15A NCAC 2Q .0501 (c)(2)} in this application. Application 2500159.08B was received by the Division of Air Quality (DAQ) on September 29, 2008 and was considered complete on that date.

This application is required to go through a 30-day public notice period and a 45-day EPA review period.

II. Description of Facility:

The Fleet Readiness Center East (FRC) is a tenant command aboard the Marine Corps Air Station (MCAS) at Cherry Point. MCAS Cherry Point is located in Craven County. This is the largest Marine Corps Air Base in the world. The FRC sits on 150 acres of land and occupies over 100 building and structures, with approximately 1.5 million square feet under roof. The FRC East is charged with providing depot-level maintenance, engineering and logistics support for Marine Corps and Navy aircraft and nine primary aircraft engines. Painting, bead blasting, anodizing and engine testing comprise the air quality related operations at this facility.

III. Application History:

- A. Application 2500159.08C, Administrative Amendment issued as Revision T37
1. Formatting corrections in the Permit.
 2. Revise descriptions of sources.
 3. Typographical corrections in the Permit.
 4. Change name of Commanding Officer at the facility.
- B. Application 2500159.08C, Significant Modification issued as Revision T38
1. Install a new Laser Depainting System (ID No. D0221) in Building 423.
 2. Relocate paint booth D0061 from Building 188 to Building 129. This paint booth has already been relocated at the facility. The applicant corresponded with the DAQ on July 23, 2008 for this change. The relocation did not cause any new regulation review or toxics demonstration. This is the first time that the permit has been opened since that relocation and the new location will be administratively changed in this revision of the permit.
 3. Administrative changes: Permit Conditions 2.2 B. 1. a., 2.2 B.1.b., and 2.2 B.2
 - Remove facility-wide entries for nickel metal and soluble chromate compounds; add their source specific modeled contribution tables to Section 2.2 B.2.b. [Section 2.2 B. 1.a.]
 - Remove facility-wide entry for nickel, soluble compounds; add its source specific modeled contribution table to 2.2 B. 2.b. [Section 2.2 B. 1. a.]
 - Remove facility-wide entry for manganese and compounds. [Section 2.2 B. 1. a.]
 - Insert new tables for acetaldehyde, arsenic and inorganic arsenic compounds, bioavailable chromate pigments, cadmium, non-specific chromium (VI) compounds. [Section 2.2 B. 2. b.]
 - Insert revised tables for benzene and toluene. [Section 2.2 B. 1. b.]
 - Add acrolein, acrylonitrile, beryllium, 1,3-butadiene, manganese and compounds, mercury vapor, and styrene to the TPERs Limitation table. [2.2 B. 2.]
 - Remove conditions a. b. and c. of Air Permit Section 2.2 B.3. (No Net Increase Emissions Rates), from the permit. These requirements are no longer necessary as a compliant air toxics demonstration has been included in this application for hexavalent chromium. Chromium (VI) was the limiting factor in these netting analyses. [Section 2.2 B. 3.]
- C. Application 2500159.09A, Minor Modification issued as Revision T39
1. The Fleet Readiness Center (FRC) East requests that the fuel used for engine testing and curing (JP-5) be reclassified into its broader fuel category (distillates) so that similar aviation fuels may be used in the future. Currently, the FRC East's engine test cells and fuel-fired autoclave burn JP-5 turbine aviation fuel. JP-5, JP-8, and synthetic paraffinic kerosene (SPK) are all very similar kerosene type distillate fuels. JP-8 aviation fuel is slightly different from JP-5 as it contains an additional corrosion inhibitor and an anti-icing additive. All three fuels have the exact same emissions profile, as they are all considered distillate fuels, under the Environmental Protection Agency's (EPA) collection of emission factors (AP-42), Chapter 1.3, Fuel Oil Combustion. Sulfur content remains the same for JP-8, and is less for SPK. All fuels are compliant under 15A NCAC 2D .0516, with sulfur dioxide emissions of less than 2.3 pounds per million Btu heat input. All existing permit conditions, including monitoring, recordkeeping, and reporting, will remain the same with this reclassification. The FRC East maintains military specifications MIL-DTL-5624U (JP-4/JP-5) and MIL-DTL-83133F (JP-8, SPK) on-site to support and document the fuel grades utilized.

Affected sources are as follows:

- Four jet engine test cells (A0001, A0002, A0003, A0004), Building 133
- Two accessory test stands (E0041, E0064), Building 133
- Six engine test cells (D0147, D0148, D0149, D0150, D0151, D0152), Building 137
- One jet engine test cell (A0077), Building 3402
- One engine test stand (A0058), Building 4188
- One autoclave (B0063), Building 4224

III. Application History: - Continued-

2. Correct the Building identification number for the Laser Depainting System from 243 to 423 in table of Permitted Emission Sources.
 3. Correct the location of paint booth D-0061 with associated filter CD-D0061 to Building 129.
 4. Update the minimum/maximum pressure drop for CD-D0061 from 0.20/0.70 to 0.30/0.60 in accordance with Multiple Emissions Section 2.2 A.2.g.ii. (see page 49 of permit).
 5. The benzene table was mistakenly left out in the last modification revision (T38). This table will be placed back into the permit.
 6. Remove the sentence in section 2.1.133.C.2.c. The monitoring will be done on a monthly basis, and not daily, as indicated in the third sentence of the paragraph.
 7. Clarify that regulation 15A NCAC 2D .0516 only applies to jet engines A0001, A0002, A0003, and A0004 only and not to the two accessory test stands that only emit VOCs. The test stands use pressurized oil/hydraulic fluid to simulate field conditions. [Specific Conditions and Limitations, Section 2.1.133.]
 8. For Paint booth, D0131, Building 137, paint booths D0106 and D0129, Building 245, Glass Bead Blasting Operations (D0184 and D0185, Building 3766), and PMB Blasting Operations (D0182, D0183, and D0205, Building 4034), remove the table reference to Section 2.2.B.3. This section was removed in the last modification revision T38.
 9. Visible Emissions 15A NCAC 2D .0521 were removed for all MACT (Subpart GG) sources in the previous revision (T38) that was issued on March 4, 2009. The FRC East wishes to have the VE conditions placed back into the permit as listed in revision T37. The affected Subpart GG sources that will be as follows:
 - Paint booth D0069, Bldg. 84
 - Paint booth D0061, Bldg. 129
 - Paint booth D0066, Bldg. 129
 - Paint booth A0019, Bldg. 133
 - Paint booth A0032, Bldg. 133
 - Laser Depainting System D0221, Bldg. 423
 - Paint booth D0052, Bldg. 1798
 - Paint booth D0056, Bldg. 3767
 - Paint booth A0179, Bldg. 4032
 - Paint booth D0007, Bldg. 4032
 - Paint booth E0160, Bldg. 4225
- D. Application 2500159.09B was received on September 14, 2009. The purpose of this application was to submit the Part 2 MACT “Hammer” application for affected combustion sources. This permit was sent through both the 30 day public comment period and the 45-day EPA review period.
- E. Application 2500159.08A was received on September 9, 2008 and is the renewal application for his facility. This permit revision will be sent through both the 30 day public comment period and the 45 day EPA review.

IV. Statement of Compliance:

On the latest inspection of this facility performed on May 13, 2011 by Mr. Robert Bright of the Washington Regional Office, the facility appeared to be in compliance with all applicable regulations.

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V. Changes to existing permit per application (2500159.08B):

Old Page	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, changed purpose of permit in first sentence
Page 2	Page 2	Heading and body of letter	Revised issued date at the top of letter, and changed the effective date of permit,
Air Permit			
Page 1	Page 1	Cover Page	Revised: permit number, “replaces permit” number, issue date, effective date, complete application date, application number, and expiration date
All pages	All pages	Header of page	Revised the permit revision number to T42
N/A	Pages 84-93	General Conditions	Added most current set of General Conditions

VI. Summary of Emission Sources and Control Devices

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Ref.
Building 84				
D0069 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0069	dry particulate filter system ^{EAF}	B.
D0127	wood working operation and dust collection system	CD-D0127	simple cyclone (104 inches in diameter)	A.
Building No. 129				
D0061 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0061	dry particulate filter system ^{EAF}	A.
D0066 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0066	dry particulate filter system ^{EAF}	A.
Building No. 133				
A0001	distillate/distillate equivalent fuel-fired engine test cell	None	None	E.
A0002	distillate/distillate equivalent fuel-fired engine test cell	None	None	E.
A0003	distillate/distillate equivalent fuel-fired engine test cell	None	None	E.
A0004	distillate/distillate equivalent fuel-fired engine test cell	None	None	E.
A0009	metal spray/high velocity oxygenated fuel (HVOF) booth	CD-A0009	cartridge filter venting to HEPA filter shared with CD-A0010	B.
A0010	metal spray/high velocity oxygenated fuel (HVOF) booth	CD-A0010	cartridge filter venting to HEPA filter shared with CD-A0009	B.
A0011	metal spray/high velocity oxygenated fuel (HVOF) booth	CD-A0010	cartridge filter venting to HEPA filter shared with CD-A0009	B.
A0019 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-A0019	dry particulate filter system ^{NAF}	A.
A0032 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-A0032	dry particulate filter system ^{NAF}	A.
A0130	non destructive inspection	None	None	F.
B0078 MACT, Subpart GG	parts cleaning tank	None	None	D.
B0079 MACT, Subpart GG	parts cleaning tank	None	None	D.
B0080 MACT, Subpart GG	parts cleaning tank	None	None	D.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Ref.
E0019 MACT, Subpart GG	open top tank, rust removal	None	None	D.
E0041	accessory test stand using pressurized oil/hydraulic fluid	None	None	E.
E0064	accessory test stand using pressurized oil/hydraulic fluid	None	None	E.
E0080	abrasive blasting walk-in booth	CD-E0080	cartridge filter venting to HEPA filter	C.
Building No. 137				
C0003 MACT, Subpart GG	solvent spray cleaning booth	None	None	A.
C0004 MACT, Subpart GG	solvent spray cleaning booth	None	None	A.
C0005 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-C0005	dry particulate filter system ^{EAF}	B.
C0017	propane-fired heat treat furnace	None	None	F.
C0036	quench cooling tank	None	None	H.
C0056 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-C0056	dry particulate filter system ^{EAF}	B.
C0062 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-C0062	dry particulate filter system ^{EAF}	B.
D0008 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0008	dry particulate filter system ^{EAF}	B.
D0009 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0009	dry particulate filter system ^{EAF}	B.
D0016 MACT, Subpart N	chromic acid anodizing tank (150 amp rectifying capacity)	CD-D0177	three-stage mesh pad with HEPA filter	C.
D0025 MACT, Subpart GG	solvent spray cleaning booth	None	None	A.
D0026 MACT, Subpart GG	solvent spray cleaning booth	None	None	A.
D0027 MACT, Subpart GG	solvent spray cleaning booth	None	None	A.
D0033 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0033	dry particulate filter system ^{EAF}	B.
D0036 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0036	dry particulate filter system ^{EAF}	B.
D0097 MACT, Subpart GG	abrasive blast room	CD-D0097	cartridge filter	G.
D0113, D0114 Case-by-Case MACT	Two (2) process heaters; jet fuel (JP-5)-fired (6 million Btu per hour each)	None	None	I.
D0120 MACT, Subpart GG	depainting/chemical stripping area (strip hangar)	None	None	E.
D0131 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0131	dry particulate filter system ^{EAF}	B.
D0147	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.
D0148	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.
D0149	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.

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Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Ref.
D0150	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.
D0151	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.
D0152	distillate/distillate equivalent fuel-fired turbine engine test cell	None	None	D.
D0177 MACT, Subpart N	chromic acid anodizing tank (150 amp rectifying capacity)	CD-D0177	three-stage mesh pad with HEPA filter	C.
Building No. 245				
D0106 MACT, Subpart GG	paint hangar and associated spray gun cleaning operation	CD-D0106	dry particulate filter system with 16 filter banks ^{EAF}	A.
D0129 MACT, Subpart GG	paint hangar and associated spray gun cleaning operation	CD-D0129	dry particulate filter system with eight three-stage filter banks ^{IAF}	A.
Building 423				
D0221 MACT, Subpart GG	laser depainting system	CD-D0221	dry particulate cartridge filter system (80 square feet of surface area) with add-on HEPA filter system (66 square feet of surface area)	A.
Building No. 1798				
D0052 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0052	dry particulate filter system with six filter banks ^{EAF}	A.
D0053	abrasive blasting walk-in booth	CD-D0053	cartridge filter (15,024 square feet of surface area and HEPA filter with 1,252 square feet of surface area)	C.
D0054 MACT, Subpart GG	steam cleaning operation	None	None	B.
H0001, H0002 Case-by-Case MACT	two (2) process heaters; propane-fired (4.2 million Btu per hour each)	None	None	D.
Building No. 3402				
A0077	distillate/distillate equivalent fuel-fired engine test cell T407	None	None	A.
Building No. 3766				
D0184 MACT, Subpart GG	corrosion control hangar abrasive blasting operations	CD-D0184	filter system with three cartridge filter banks (7,500 square feet of filter surface area each)	A.
Building 3767				
D0056 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0056	dry particulate filter system ^{EAF}	A.
Building No. 4032				
A0138	non destructive inspection	None	None	B.
A0179 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-A0179	dry particulate filter system ^{NAF}	A.
D0007 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-D0007	dry particulate filter system ^{EAF}	A.
Building No. 4034				

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Ref.
D0182 MACT, Subpart GG	plastic media blasting hangar with three two-stage filter systems	CD-D0182A CD-D0182B	cartridge filter venting to HEPA filter	A.
		CD-D0182C CD-D0182D	cartridge filter venting to HEPA filter	
		CD-D0182E CD-D0182F	cartridge filter venting to HEPA filter	
[Total filter surface area of each couplet is 27,778 square feet]				
D0183 MACT, Subpart GG	media recovery unit 1 of 2	CD-D0183A CD-D0183B	cartridge filter venting to HEPA filter	A.
	[Total filter surface area of couplet is 5,040 square feet]			
D0205 MACT, Subpart GG	media recovery unit 2 of 2	CD-D0205A CD-D0205B	cartridge filter venting to HEPA filter	A.
	[Total filter surface area of couplet is 2,520 square feet]			
Building No. 4035				
T0074	nickel strike tank	A-OH-2	vertical packed-bed tower scrubber	A.
T0087	nickel strip tank	None	None	A.
T0099 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
T0100 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
T0105 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
T0106 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
T0127	plating tank	A-OH-3	vertical packed-bed tower scrubber	A.
T0131	plating tank	A-OH-3	vertical packed-bed tower scrubber	A.
T0155 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
T0188	nickel strike tank	A-OH-4	vertical packed-bed tower scrubber	A.
T0191	hard sulfamate nickel plating process	None	None	A.
T0195	hard sulfamate nickel plating process	A-OH-4	vertical packed-bed tower scrubber	A.
T0201	nickel strip tank	None	None	A.
T0211	wax remover tank	None	None	C.
T0218 MACT, Subpart N	hard chrome plating tank	CR-2R	four stage composite mesh pad scrubber	B.
Building No. 4037				
D0199	adhesive coating booth	None	None	A.
Building No. 4188				
A0058	distillate/distillate equivalent fuel-fired engine test cell F402	None	None	A.
A0076 NSPS, Subpart Kb	horizontal fixed-roof jet fuel storage tank (25,000 gallon capacity)	None	None	B.
Building No. 4224				
B0063	distillate/distillate equivalent fuel-fired autoclave (15 feet in diameter)	None	None	A.
B0101 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-B0101	dry particulate filter system ^{EAF}	B.
Building 4225				

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Ref.
E0083	non destructive inspection	None	None	D.
E0088	hydrogen fluoride cleaning electric furnace	CD-E0088A CD-E0088B CD-E0088C CD-E0088D	Four venturi/packed tower scrubbers using water/sodium hydroxide scrubbing solution in parallel	A.
E0141 MACT, Subpart GG	envirosolv 654 cleaning tank	C-1	horizontal packed bed caustic scrubber with mist eliminator	C.
E0160 MACT, Subpart GG	paint booth and associated spray gun cleaning operation	CD-E0160	dry particulate filter system ^{EAF}	B.
E0165	high velocity oxygenated fuel thermal spray booth	CD-E0165	cartridge/HEPA filter system	E.
Miscellaneous Boilers and Process Heaters				
H1000 Case-by-Case MACT	All natural gas, No. 2 fuel oil, LPG, jet fuel, and propane-fired, MACT-affected boilers and process heaters with a heat input capacity of no greater than 1 million Btu per hour	None	None	A.

EAF Existing affected facility for primer and topcoat application operations applicability, standards, and control requirements.

IAF Interim affected facility for primer and topcoat application operations applicability, standards, and control requirements.

NAF New affected facility for primer and topcoat application operations applicability, standards, and control requirements.

Reference number = Item location in Specific Limitations and Conditions for each Building

a. Applicable Regulatory Requirements:

The sources at this facility are subject to the following regulations:

- 15A NCAC 2D .0503 “Particulates from Fuel Burning Indirect Heat Exchangers”
- 15A NCAC 2D .0512 “Particulates from Miscellaneous Wood Products Finishing Plants”
- 15A NCAC 2D .0515 “Particulates from Miscellaneous Industrial Processes”
- 15A NCAC 2D .0516 “Sulfur Dioxide Emissions From Combustion Sources”
- 15A NCAC 2D .0521 “Control of Visible Emissions”
- 15A NCAC 2D .0524 “New Source Performance Standards”
- 15A NCAC 2D .0711 “Facility Wide Toxic Air Pollutants Exemption Rate Emissions Limits”
- 15A NCAC 2D .0958 “Work Practice Standards For Volatile Organic Compounds”
- 15A NCAC 2D .1100 “Control of Toxic Air Pollutants”
- 15A NCAC 2D .1111 “Maximum Achievable Control Technology”
- 15A NCAC 2D .1109{112(J)} “Case-By-Case “Maximum Achievable Control Technologies”

No regulatory review is required for the regulations listed above, because there have been no new regulations added since this facility went through the last 30 day public notice and 45 day EPA review. Compliance Assurance Monitoring (CAM) does not apply because these sources are regulated by both an NSPS and MACT that were promulgated after 1990 and control the pollutants that would be subject to the CAM.

VII. A Professional Engineers Seal is not required for this renewal application.

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

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

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X. The appropriate number of copies for the application was received by the DAQ Raleigh Central Office on September 9, 2008.

XI. The application was signed by the Responsible Official as defined by 15A NCAC 2Q .0304(j).

XII. PSD does not apply for this renewal.

XIII. Public Notice
A thirty-day public notice and EPA review period is required.

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

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

XIV. This facility is not subject to 15A NCAC 2Q .0508(g) "Prevention of Accidental Releases" because it does not store any of the listed 112(r) chemicals in quantities above the thresholds.

XV. Ozone Nonattainment:
Craven is designated as attainment for the 8-hour ozone standard. Nonattainment does not apply.

XVI. Recommendations:
The Washington Regional Office (WaRO) did not comment on the initial application but did make comments on the draft Permit and review.

This permit, issued as a "Renewal" of a Title V permit for the Fleet Readiness Center, located in Cherry Point, Craven County, North Carolina, has been reviewed by the DAQ to determine compliance with all requirements. The Washington Regional Office concurs with the issuance of this permit.

Issue permit No. 05506T42.