

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date: DRAFT – August 13, 2010

Region: Raleigh Regional Office
County: Johnston
NC Facility ID: 5100024
Inspector's Name: Brian Bland
Date of Last Inspection: 07/09/2009
Compliance Code: 3 / Compliance - inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Raven NC, LLC formerly ASC Signal Corporation Facility Address: Raven NC, LLC formerly ASC Signal Corporation 1315 Industrial Park Drive Smithfield, NC 27577 SIC: 3679 / Electronic Components, Nec NAICS: 33422 / Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: n/a NSPS: n/a NESHAP: MMMM, PPPP, & WWWW (DDDDD prior to vacatur – 112(j) app. in house) PSD: n/a PSD Avoidance: n/a NC Toxics: Last MACT Toxics 112(r): n/a Other: n/a
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 5100024.06A Date Received: 03/21/2006 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 05529/T20 Existing Permit Issue Date: 03/11/2010 Existing Permit Expiration Date: 04/30/2013
Larry Haley Facility Manager (919) 989-1607 1315 Industrial Park Drive Smithfield NC, 27577	Doug May Operations Manager (919) 989-2292 1315 Industrial Park Drive Smithfield, NC 27577	Larry Haley Facility Manager (919) 989-1607 1315 Industrial Park Drive Smithfield NC, 27577	
Review Engineer: Judy Lee Review Engineer's Signature: _____ Date: _____		Comments / Recommendations: Issue 05529/T20 Permit Issue Date: _____ Permit Expiration Date: _____	

1. Purpose of Application

This permitting action is for a renewal of an existing Title V permit pursuant to 2Q .0513 and an ownership/name change request that was consolidated into this renewal. The initial Title V permit (**05529T17**) for this facility, Channel Master, Incorporated, was issued on January 23, 2002 and has been modified three times since issuance. Channel Master, Incorporated requested a name change on January 6, 2004 to Andrew Corporation North Carolina, Title V permit **#05529T18** issued on January 23, 2004. Andrew Corporation North Carolina requested a name change on February 18, 2008 to ASC Signal Corporation, Title V permit **#05529T19** was issued on May 18, 2008. ASC Signal Corporation requested a name change on June 22, 2009 to Raven NC, LLC, Title V permit **#05529T20** was issued on March 11, 2010, and is currently scheduled to expire on April 30, 2013**

**An application to renew Permit No. 05529T18 has been timely filed, so that an application shield pursuant to 15A NCAC 2Q .0512(b)(1) remains in effect. Permit No. 05529T20 shall not expire until the renewal permit has been issued or the request has been denied, and all terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or the request has been denied pursuant to 15A NCAC 2Q .0513(c).

The original renewal application was received on March 21, 2006 (due on March 31, 2006), or at least nine months prior to the expiration date, with additional amendments to the application received as detailed below. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

Raven NC, LLC, formerly **ASC Signal Corporation** (Andrew Corporation of N. C. at the time the renewal application was submitted), - Smithfield Facility has submitted an application for an ownership change and name change of their existing air permit (Permit No. 05529T19), which was consolidated into this Renewal request. The permit application for an ownership/name change was received on June 22, 2009. The new facility name will be **Raven NC, LLC**. Due to the long processing time for the renewal, the facility's ownership/name change was unconsolidated and issued on March 11, 2010. The facility's current permit (Permit No. 05529T20) is scheduled to expire on April 30, 2013** as discussed above since Andrew Corporation submitted their Renewal application in a timely manner and will continue to operate under the terms and conditions of their current Title V permit until the renewed permit is issued or denied in accordance with Section 3 – General Condition K. of existing permit No. 05529T18.

The Standard Industrial Classification (SIC) code is 4911.

2. Facility Description

Raven NC, LLC formerly ASC Signal Corporation manufactures rooftop and satellite television reception antennas, associated equipment and accessories.

The plant operations include injection molding, compression molding, and coating lines [Taken from the initial Title V review, January 23, 2002, when the facility operated under Channel Master].

[insert from WRAL.com posted November 6, 2007]

“Andrew Corporation, which employs 250 people at a satellite dish manufacturing plant in Smithfield, is selling its satellite communications business to an Ohio company. The deal includes the Smithfield operation, and it could mean good news for the region in terms of jobs. “It really won’t have any impact immediately. We will maintain the status quo,” said Bassem Mansour, managing partner for Resilience Capital. “We’re hoping to grow that business over time.” Andrew Corporation had at one time employed more than 400 people in Smithfield where it leases a portion of a 750,000 square foot structure. Under its previous owner, Channel Master, the plant once employed 1,600 people. Channel Master went bankrupt and Andrew acquired the operation in 2005.

[insert from Copyright Business Wire June 4, 2009]

“Global Acquisitions Grow Raven into World Leader

Today’s announcement from Satellite Holdings LLC (a partnership between private investment firms The Edgewater Funds and Granahan McCourt Capital) marks the creation of one of the world’s largest providers of antenna systems. A series of strategic acquisitions sees UK-based Raven, already one of the world’s leading provider of consumer satellite broadband antennas and major manufacturer of direct-to-home products, become a global total solutions provider of integrated outdoor units (ODU) and associated electronics and equipment, with one of the world’s leading research and development divisions.

To speed Raven’s global expansion, Satellite Holdings LLC and its group of companies - including Raven Group Limited, Raven Manufacturing and Raven Antenna Systems Inc - has acquired ASC Signal Corporation’s Direct-to-Home (DTH), Very Small Aperture Terminal (VSAT), and Radio Frequency electronics (RF) business units; plus the 100% stock purchase of the Germany-based Skyware Radio Systems, a unit previously owned by Philips (NYSE: PHG). These business units include manufacturing operations in North Carolina (US) and engineering offices in England, Scotland and Germany.

David C McCourt, telecom industry veteran and CEO of Satellite Holdings LLC commented: “The ASC acquisition and the synergies we see with Raven, are exactly what we had in mind as we looked to grow Raven into the global provider of complete outdoor unit systems. The goal behind our strategy is to help operators around the world lower

equipment acquisition costs, as well as reduce maintenance costs, truck rolls and service calls through superior products in the field."

Added Mr McCourt: "ASC not only provides additional antenna systems, electronics, and manufacturing capabilities that have immediate synergies with Raven`s offering, ASC also has a world-class customer base that I am excited to partner with."

On 31 December 2008, The Edgewater Funds, a leading private equity firm based in Chicago, and Granahan McCourt Capital, LLC, a NJ-based private investment firm, purchased the Raven group of companies through the newly- formed Satellite Holdings, LLC to provide a platform to build the largest, complete solutions provider in the satellite ground equipment market.

Raven, founded in 1984, is one of the world`s major players in the Direct Broadcast, Satellite Broadband and VSAT markets, and is looking to expand into the fields of Antenna systems design and supply. It is the world`s leading provider of consumer Satellite Broadband and a major manufacturer of DTH equipment."

3. Application Chronology

Please see the attached Comprehensive Application Reports for 5100024.06A and 5100024.09A and email correspondence for more details.

March 21, 2006 - Renewal (application number 5100024.06A) received. The facility requested renewal of their Title V Operating Permit stating that during the remainder of 2006 and early 2007, the Andrew Corporation will relocate much of the process equipment from the Smithfield facility to a new facility to be constructed in Goldsboro (Wayne County). Andrew Corporation will notify DAQ when all manufacturing activities have concluded at the Smithfield facility to withdraw the Renewal Application.

June 29, 2006 - Notification that they will continue to operate the Smithfield facility and will not be building the Goldsboro facility; therefore, DO NOT withdraw renewal, process as submitted. Hence, the renewal was taken off hold.

August 2, 2006 – Ms. Lee, Raleigh Central Office (RCO) sent Mr. Charles McEachern an email regarding renewals that were in house for the RRO, including Andrew Corporation, and if the region was aware of any issues with this facility? Mr. McEachern responded “I’m not aware of any issues with these facilities, and will look at them more closely when you send me your drafts.”

February 16, 2007 – Email from Mr. Larry Haley, Andrew Corporation regarding changes at plant. Facility is downsizing the area from 750,000 square feet to approximately 250,000 square feet, removing numerous emission points and removing 5 emission points from one location to another. Request a meeting to discuss changes and renewal application. Ms. Lee telephoned Mr. Haley and informed him that we had a backlog of renewals and that when she began reviewing the renewal application she would contact him to schedule a meeting.

March 1, 2007 - Application Amendment received for removal of 43 sources due to facility downsizing as discussed on February 16, 2007. *This was incorporated into the ownership change issued on May 14, 2008.*

August 3, 2007 – Division of Air Quality (DAQ) sent letters to Reinforced Plastic Composite (RPC) facilities, including Andrew Corporation, “Request for Emission Evaluation from Reinforced Plastic Composites Production Sources.”

September 26, 2007 – Telephone conversation with Mr. Haley regarding renewal application due to a possible upcoming ownership change and expiration of their current permit (Permit #05529T18). Email response indicating that Andrew Corporation submitted their Title V Renewal package in a timely manner; therefore, the facility will continue to operate under the terms and conditions of their current Title V permit until the renewed permit is issued or denied as stated in Section 3 - General Condition K.

December 18, 2007 – Telephone conversation with Mr. Haley regarding a name change request possibly around December 27, 2007. Due to Andrew Corporation being sold (see Article insert above).

January 22, 2008 – Mr. Charles McEachern, RRO faxed facility's response to DAQ's August 3, 2007 request for "Emission Estimates for Reinforced Plastic Composites Production Sources" received on September 27, 2007 by RRO, in response to Ms. Lee's email dated January 18, 2008 asking if RRO received a response from Andrew.

February 18, 2008 - Application for name change/ownership change received to change Andrew's name to ASC Signal Corporation.

May 2, 2008 – Draft permit for name change/ownership change and application amendment to remove sources received as part of the renewal application sent to RRO and ASC for comments.

May 8, 2008 – Email to Ms. Dena Pittman and Mr. Charles McEachern, RRO regarding Mr. Haley's comments on the draft permit earlier today and request to meet and go over the changes/updates before the renewal is finalized. Ms. Lee inquired about attending the annual inspection that is coming up in June? No response.

May 14, 2008 – Permit for name change/ownership change issued to ASC Signal Corporation.

May 21, 2008 – Mr. Haley telephoned because Steven Carr, RRO was there for their annual inspection and wanted to discuss the revised permit.

July 2, 2008 – Ms. Lee, RCO, telephoned Mr. Haley, ASC regarding the renewal application and scheduling a meeting per facility's previous request. The applicable "Maximum Achievable Control Technology" (MACT) standards that apply to ASC were discussed since they will be added to the permit during this renewal process (see Section 5 under MACT for more details). A tentative meeting was scheduled for July 23, 2008.

July 23, 2008 – Ms. Lee, RCO, met with Mr. Haley, ASC at the Smithfield facility and had the opportunity to go over the permit and tour the facility. During the site visit, Mr. Haley went over all of the emission sources and we discussed the MACT standards that apply to ASC (See Section 5 below).

June 22, 2009 - Application for name change/ownership change received to change ASC to Raven NC, LLC.

October 20, 2009 – Draft permit for renewal and name change/ownership change sent to ASC for review.

March 1, 2020 - Since the renewal application was taking longer than we expected, the name change/ownership change was unconsolidated and a draft sent to the facility and RRO for review.

March 11, 2010 - Permit for name change/ownership change issued to Raven NC, LLC.

June 4, 2010 – Mr. Jim Serne, PE, QSTI, TRC Environmental Corporation, requested a meeting with DAQ to discuss the draft renewal permit on Thursday for the Raven NC, LLC Smithfield Title V Permit revisions and the Styrene / TAPs Modeling Study.

June 9, 2010 – Raven submitted a dispersion modeling analysis for the Raven NC, LLC Smithfield. The modeling study was conducted to demonstrate compliance for Styrene. Please see Section 10 below for more details.

June 10, 2010 – Ms. Lee, DAQ, meet with the facility and their consultants to discuss the draft renewal permit and modeling study. Please see Section 10 below for more details.

June 14, 2010 – Ms. Lee, DAQ, emailed the facility and their consultants regarding insignificant activities and the powder coating lines. Please see Section 10 below for more details.

June 16, 2010 – Mr. Serne, TRC submitted a Subpart M MMM Exemption and Insignificance Demonstration. Please see Section 10 below for more details.

June 23, 2010 – Mr. Mark Yoder, Air Quality Analysis Branch, memorandum regarding modeling analysis for Styrene emissions indicating compliance. Please see Section 10 below for more details.

4. Permit Modifications/Changes and ESM Discussion

The initial Title V permit was modified three times since issuance as discussed above for name/ownership changes.

Changes to Raven NC, LLC, formerly ASC Signal Corporation, current Title V permit (#05529T20) for this renewal (application number 5100024.06A) are summarized in the following table:

*****Insert Table from Permit prior to issuance

ESM was modified to match the renewed permit and correct errors found during review process.

5. New Equipment/Change in Emissions and Regulatory Review

- No new equipment or change in emissions with this renewal (5100024.06A, received March 21, 2006)
- Application Amendment (application number N/A, received March 1, 2007) request to remove 43 existing sources was consolidated with name change/ownership change (issued on May 14, 2008) and will be further clarified during the renewal process.

Due to company downsizing, DAQ expects a decrease in overall facility emissions. No data was received with the renewal request regarding overall emission reductions, just equipment to be removed.

Facility Emissions Review

As previously stated, there is no change in emissions for this renewal; however, since the facility has downsized overall emissions are expected to decrease. The following table represents the latest years’ actual emissions from IBEAM, *Emissions Inventory: Annual Emissions Report* for inventory year 2006, as well as the emissions inventory (EI) data provided by Mr. Haley on July 2, 2008 via email, compared to the 2007 EI which has since been approved by RRO.

Pollutant(s)	2008 Actual Emissions (tpy) based on Fees Module Data	2007 Actual Emissions (tpy) based on EI received July 2, 2008 (Corrected per Fees Module)	2006 Actual Emissions (tpy) based on Fees Module Data	Potential Emissions (tpy) based on Fees Module Data	Potential Emissions (tpy) based on PSD Avoidance Limits
CO	0.9	1.57	2.69	4.49	--
NO _x	1.08	1.88	3.20	23.25	--
PM	0.19	0.17	0.29	1.49	--
PM ₁₀	0.19	0.17	0.29	1.01	--
SO ₂	NR	NR	0.01	0.72	--
VOC	24.14	69.59 (57.27)	94.16	527.9	<250 <250
Total TAP	12.29	14.9 (17.07)	19.46	26.74	--
Total HAP	12.52	15.21 (17.46)	20.60	376.28	--
Largest Single HAP/TAP (Styrene)	10.44	11.19 (13.95)	14.34	20.44	--

In addition to requirements provided in Section 3 – General Conditions, the facility will be subject to the following regulations upon issuance of the renewed permit:

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 .0530, PREVENTION OF SIGNIFICANT DETERIORATION (Avoidance)
15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds
15A NCAC 2D .1100, Control of Toxics Air Pollutants
15A NCAC 2D .1111 “Maximum Achievable Control Technology (MACT) - 40 CFR 63, Subpart WWWW, MMMM & PPPP”
15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
15A NCAC 2Q .0317, Avoidance Conditions for 15A NCAC 2D .0530, PREVENTION OF SIGNIFICANT DETERIORATION (for VOC)
15A NCAC 2Q .0512, Permit Shield for Nonapplicable Requirements
15A NCAC 2Q .0705, Existing Facilities and SIC Calls
15A NCAC 2Q .0711, Emission Rates Requiring a Permit

Regulations added/updated/modified significantly as part of this renewal and amendment are:

15A NCAC 2Q .0705, Existing Facilities and SIC Calls - Last MACT/Toxics Requirements

In general, 15A NCAC 2Q .0705(b) requires a Permittee to submit a permit application to comply with 2D .1100. This application is required to include an “evaluation” for all toxic air pollutants in 2D .1104, for all sources at the facility, excluding exempt sources in 2Q .0702. If the actual emissions from all sources do not exceed the toxic permitting emissions rates (TPERs) in 2Q .0711, no application is required. However, the Permittee must present documentation of those emission rates upon the Director’s request.

Evaluation is defined in 2Q .0703(9) as:

- (a) a determination that the *emissions from the facility*, including emissions from sources exempted by Rule .0702 (a) (24) through (27) of this Section, are less than the rate listed in Rule .0711 of this Section; or
- (b) a determination of ambient air concentrations as described under 15A NCAC 2D .1106, including emissions from sources exempted by Rule .0702 (a)(24) through (27) of this Section.

A review of the MACT Database (as of 1/17/2008), indicated the facility was “subject” to the following MACTs:

- ✓ *Subpart WWWW, Reinforced Plastic Composites - Over 10 tons emissions of styrene.*
- ✓ *Subpart PPPP, Plastic Parts Surface Coating - See response letter for details.*
- ✓ *Subpart DDDDD, Boiler MACT - Notification unclear; however, because according to the NC Attorney General’s office, the boiler MACT was never promulgated (i.e. vacatur) no notifications were required.*

On July 2, 2008 Ms. Lee, RCO, telephoned Mr. Haley, ASC regarding the renewal application and scheduling a meeting per ASC’s previous request. Also, during this telephone conversation we discussed the MACT database and applicability of the three MACTs listed above. The boiler MACT (Subpart DDDDD), especially; since, there are no boilers listed in the current permit. The only combustion sources listed in the permit at that time were the SMC paint IR bake oven (ID No. ES00451) and SMC paint preheat oven (ID No. ES00351). Per Mr. Haley, they have small boilers that they use to heat up the molding. He also stated that he accounts for them on his emissions inventory under the molding emissions. He said that he had just submitted their emissions inventory, and the natural gas usage from the two boilers is accounted for under the molding operations. I explained to him that I had not seen a copy of the emissions inventory because they go to the regional offices, so Mr. Haley email a copy to me. Mr. Haley asked what else was needed for the boilers? I informed him that we would need the boiler descriptions and maximum heat input capacity in order to add them to the permit (Mr. Haley emailed this information later that day).

Ms. Lee also asked Mr. Haley if they had submitted their last MACT toxics demonstration. He said that he was not sure what I was referring to, that he remembered submitting something for the MACTs to Mr. McEachern in September. I indicated to him that, that was probably the response to the RPC letters that DAQ sent to WWW facilities, but I would check the notifications that were received (as indicated by the MACT database). I explained to him that if they were subject to the Boiler MACT prior to its vacatur, then they may be okay with the last MACT toxics demonstration, otherwise they would need to submit a demonstration and that it was due on the date of their last MACT, which appears to be PPPP, if the Boiler MACT did not apply. After discussing this with Mr. Haley and obtaining copies of the MACT notifications from Ms. Betty Gatano, Stationary Source Compliance Branch (SSCB), and the boiler information, the facility only fires natural gas or propane.

Since ASC only burns natural gas in their combustion sources (only UNADULTERATED fuels are burned in their boilers and/or process heaters), the boilers and/or process heaters meet the definition of a “combustion source” per 15A NCAC 2Q .0703(6). 15A NCAC 2Q .0705(b) requires a Permittee to comply with North Carolina Toxic Air Pollutant (TAP) requirements in 15A NCAC 2D .1100 as part of the Permittee’s compliance with their last non-combustion MACT standard. The last MACT toxics evaluation exempts combustion sources under 15A NCAC 2Q .0702(a)(18) as defined under 2Q .0703 until 18 months after promulgation of the MACT or GACT for combustion sources; therefore *modeling for TAPs from combustion sources is not required at this time* and their last MACT trigger becomes Subpart PPPP, Plastic Parts Surface Coating NESHAP [April 19, 2007 - compliance date for existing sources]; thus, the compliance date for their last MACT was April 19, 2007 (Subpart PPPP compliance date for existing sources is after Subpart WWW compliance date for existing sources of April 21, 2006). Therefore, the facility is required to submit a compliance demonstration pursuant to 2Q .0705.

During the site visit on July 23, 2008 Ms. Lee and Mr. Haley discussed the last MACT toxics demonstration further and the compliance schedule. Mr. Haley provided a copy of styrene modeling performed in July 2006 when the facility was downsizing. The modeling was performed by TRC Environmental Corporation, yet was never submitted to DAQ’s Air Quality Analysis Branch (AQAB) for review. The air toxics emission modeling study evaluated the impact of the maximum styrene concentrations at the property line and the demising wall in comparison to the NC DAQ AAL value and odor threshold. Modeling concluded that the NC DAQ AAL for styrene was not exceeded. However, after talking with Mr. Jim Roller, AQAB, due to changes in meteorology data, the styrene modeling performed in 2006 needs to be re-evaluated using the latest meteorology data. For all other TAP emissions, the emissions inventory (EI) data indicates all pollutants, except for Styrene, are below the TPERs. Therefore, at this time we are addressing last MACT by placing our current shell language in the permit and a compliance schedule will be added to the permit with an extension of 5 months from the date of permit issuance to allow the facility time to comply with their last MACT toxics demonstration (See Section 7 - Toxics below).

15A NCAC 2D .1111 “Maximum Achievable Control Technology (MACT)”
40 CFR 63, Subparts WWW, PPPP MMMM, & DDDDD

40 CFR 63, Subpart DDDDD, Industrial/Commercial/Institutional Boilers and Process Heaters MACT

The compliance date for the Boiler MACT (Subpart DDDDD) was September 13, 2007, prior to vacatur of the rule, as discussed below:

On June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit issued a decision vacating in its entirety and remanding the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters, or Boiler MACT, contained in 40 CFR 63 Subpart DDDDD. Because of this, it is the policy of the DAQ to remove this MACT from the Air Permit upon request from a facility or upon processing a permit modification for a facility who’s permit contains Boiler MACT language.

At that time, the compliance date became either:

- 1) the 112(j) compliance date, OR
- 2) the compliance date of the revised Boiler MACT.

Initial Notification Report received on March 14, 2005 by NCDAQ Planning Section. Notification references Air Quality Permit No. 05529T18, which as discussed above does not include any boilers or process heaters.

As discussed above, Ms. Lee telephoned Mr. Haley and asked about the boiler MACT. Mr. Haley stated that they have three boilers at the facility: one used for comfort heat and the other two used to heat the compression presses. Based on Mr. Haley's email response on July 2, 2008, there are two boilers located at the facility that need to be added to the permit:

- 2 each Model FT-0240-C, Natural gas-fired, 2999 ft³ per hour, 2,400,000 Btu at full fire, accounted for under Group G-73, Fiberglass Closed-Molding Operation.

A review of the final Boiler MACT as published in the Federal Register (FR) on September 13, 2004 indicates that these two boilers are classified as small (<10 million Btu per hour), gas boilers with no requirements. However, this may change once DAQ receives guidance from EPA or the revised Boiler MACT is published.

Based on the natural gas combustion emissions calculator spreadsheet prepared by Ms. Lee, RCO, potential emissions from these boilers are each less than 5 tons per year and potential HAP emissions are each below 1000 pounds per year; therefore, they will be added to the insignificant activities list per 2Q .0503(8).

- ✓ ***DAQ received an application for a 112(j) Part I application on September 14, 2009 which will be processed separately.***

The new Proposed Boiler MACT was published in the Federal Register on June 4, 2010; however, at this time we are not addressing the Boiler MACT or 112(j).

40 CFR 63, Subpart WWWW, Reinforced Plastic Composites Production MACT

The facility will be subject to 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, Subpart WWWW, as indicated above for existing affected sources subject to Subpart PPPP, the deadline for submittal was by April 21, 2006.

Notification Form received on December 12, 2005 by NCDAQ Planning Section. Notification contains a table of emission sources subject to Subpart WWWW (ID Nos. ES01367, ES01467, ES01267, ES01867, ES02167, ES00167, ES00150, ES01150, ES02150, ES03150, ES04150, ES05150, ES06150, ES07150, ES08150, ES09150, ES10150, ES00050, and ES08750).

In response to DAQ's August 3, 2007 letter "Request for Emission Evaluation from Reinforced Plastic Composites Production Sources" received by NCDAQ RRO on September 27, 2007, the facility provided the following background information:

The Andrew Corporation facility in Smithfield manufactures satellite dishes which are molded from reinforced plastic materials that are either purchased for use (Sheet Molding Compound or SMC) or manufactured onsite as Thick Molding Compound or TMC. The TMC is produced from styrene, fiberglass, and polyester resins. The purchased SMC and produced TMC are molded into satellite dishes of various sizes in closed molding presses. Some dishes are manufactured without wire mesh. The dishes without the integral wire mesh must have a nickel based "base coat" applied, whereas, the dishes with the integral wire mesh need only have a "top coat" applied. Following the painting operation, the dishes are conveyed to pad printers which apply ink images (logos) on the dishes. The dishes are then packaged for shipment.

The Smithfield facility has the capacity to manufacture approximately 4,000,000 satellite dishes per year. The Reinforced Plastic Composites (RPC) production equipment located at Smithfield include:

- *Thick Molding Compound (TMC) mixing equipment*
- *6 compression molding presses*

The primary raw materials delivered to the facility by truck include:

- *Styrene (used to produce TMC)*
- *LP Resin (used to produce TMC)*
- *Polyester Beads (used to produce TMC)*

➤ *Sheet Molding Compound (SMC)*

The type of processes used by Andrew Corporation is generally called “reinforced plastic composites” (RPC) production. RPC production generally involves the production of plastic products from cross linking resins, usually in combination with reinforcing materials (such as fiberglass) and inorganic fillers. Cross linking resins, including resins used at the Smithfield facility, contain styrene.

Based on the information provided, the facility is considered an existing Closed Molding Source emitting less than 100 tons per year of HAP (Styrene).

Facility response, “*Table 1 summarizes these styrene emission estimates. Based on the maximum TMC production rate and SMC purchase quantity for Smithfield and using the emission factor of 2 percent for closed molding operations, the estimated maximum styrene emissions rate is 24,374 pounds per year or 12.19 tons per year.*” ASC followed the most recent guidance provided in DAQ’s August 3, 2007 letter, which per Ms. Gatano, included a July 10, 2007 Memorandum to regional supervisor’s, “*Determining Emissions from Plastic Composites Production Facilities and Permitting of Subject Facilities.*” This Memorandum states that “*Plastic composites facilities include some or all of the following emission sources:*

- *Mixing*
- *Gel coat/Resin application/operation (i.e., casting, open molding, closed molding, pultrusion, etc.) Many facilities use multiple operations to make their products.*
- *Cleanup*
- *Resin storage*

Emissions from all of these sources, if present at the facility, must be included in determining major source status... The mixing emission factors can be found in Table 5-2 of the background information document (BID) for the MACT Subpart WWWW, under bulk molding compound (BMC) Manufacturing/Mixing.”

§63.5785 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a reinforced plastic composites production facility that is located at a major source of HAP emissions. Reinforced plastic composites production is limited to operations in which reinforced and/or nonreinforced plastic composites or plastic molding compounds are manufactured using thermoset resins and/or gel coats that contain styrene to produce plastic composites. The resins and gel coats may also contain materials designed to enhance the chemical, physical, and/or thermal properties of the product. Reinforced plastic composites production also includes cleaning, mixing, HAP-containing materials storage, and repair operations associated with the production of plastic composites.

Raven NC, LLC, formerly ASC Signal is a major source of HAP emissions; therefore, subject.

§63.5790 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected source at reinforced plastic composites production facilities.
(b) The affected source consists of all parts of your facility engaged in the following operations: Open molding, closed molding, centrifugal casting, continuous lamination, continuous casting, polymer casting, pultrusion, sheet molding compound (SMC) manufacturing, bulk molding compound (BMC) manufacturing, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage, and repair operations on parts you also manufacture.

Therefore, the SMC/TMC manufacturing equipment and closed molding presses are subject.

§63.5805 What standards must I meet to comply with this subpart?

You must meet the requirements of paragraphs (a) through (h) of this section that apply to you. You may elect to comply using any options to meet the standards described in §63.5810 through §63.5830. Use the procedures in §63.5799 to determine if you meet or exceed the 100 tpy threshold.

(a) If you have **an existing facility** that has any centrifugal casting or continuous casting/lamination operations, you must meet the requirements of paragraph (a)(1) or (2) of this section:

- (1) If the combination of all centrifugal casting and continuous lamination/casting operations emit 100 tpy or more of HAP, you must reduce the total organic HAP emissions from centrifugal casting and continuous lamination/casting operations by at least 95 percent by weight. As an alternative to meeting the 95 percent by weight requirement, centrifugal casting operations may meet the applicable organic HAP emissions limits in Table 5 to this subpart and continuous lamination/casting operations may meet an organic HAP emissions limit of 1.47 lbs/ton of neat resin plus and neat gel coat plus applied. For centrifugal casting, the percent reduction requirement does not apply to organic HAP emissions that occur during resin application onto an open centrifugal casting mold using open molding application techniques.
- (2) If the combination of all centrifugal casting and continuous lamination/casting operations emit less than 100 tpy of HAP, then centrifugal casting and continuous lamination/casting operations must meet the appropriate requirements in Table 3 to this subpart.
- (b) All operations at existing facilities not listed in paragraph (a) of this section must meet the organic HAP emissions limits in Table 3 to this subpart and the work practice standards in Table 4 to this subpart that apply, regardless of the quantity of HAP emitted.
- (c) If you have a new facility ...
- (d)(1) Except as provided in paragraph (d)(2) of this section, if you have a new facility ...

Based on the information provided, Raven NC is considered an existing Closed Molding Source emitting less than 100 tons per year of HAP; therefore, §63.5805(b) applies.

- (e) If you have a new or existing facility subject to paragraph (a)(2) or (c) of this section ...
- (g) If you have repair operations subject to this subpart as defined in §63.5785, these repair operations must meet the requirements in Tables 3 and 4 to this subpart and are not required to meet the 95 percent organic HAP emissions reduction requirements in paragraph (a)(1) or (d) of this section.

...
 Table 3 to Subpart WWW of Part 63—Organic HAP Emissions Limits for Existing Open Molding Sources, New Open Molding Sources Emitting Less Than 100 TPY of HAP, and New and Existing Centrifugal Casting and Continuous Lamination/Casting Sources that Emit Less Than 100 TPY of HAP
 As specified in §63.5805, you must meet the following organic HAP emissions limits that apply to you ...

Table 3 does not apply to Raven NC, LLC because they are an existing Closed Molding Source.

Table 4 to Subpart WWW of Part 63—Work Practice Standards
 As specified in §63.5805, you must meet the work practice standards in the following table that apply to you:

For ...	You must ...
1. a new or existing <u>closed molding</u> operation using <u>compression/injection molding</u>	uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting.
2. a new or existing cleaning operation	not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
3. a new or existing materials HAP-containing materials storage operation	keep containers that store HAP-containing materials closed or covered except during the addition or removal of

For ...	You must ...
	materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
4. an existing or new SMC manufacturing operation	close or cover the resin delivery system to the doctor box on each SMC manufacturing machine. The doctor box itself may be open.
5. an existing or new SMC manufacturing operation	use a nylon containing film to enclose SMC.
6. all mixing or BMC manufacturing operations ¹	use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.
7. all mixing or BMC manufacturing operations ¹	close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95 percent efficient control device are exempt from this requirement.
8. all mixing or BMC manufacturing operations ¹	keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
9. a new or existing pultrusion operation manufacturing parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more that is not subject to the 95 percent organic HAP emission reduction requirement	i. not allow vents from the building ventilation system, or local or portable fans to blow directly on or across the wet-out area(s), ii. not permit point suction of ambient air in the wet-out area(s) unless that air is directed to a control device, iii. use devices such as deflectors, baffles, and curtains when practical to reduce air flow velocity across the wet-out area(s), iv. direct any compressed air exhausts away from resin and wet-out area(s), v. convey resin collected from drip-off pans or other devices to reservoirs, tanks, or sumps via covered troughs, pipes, or other covered conveyance that shields the resin from the ambient air, vi. cover all reservoirs, tanks, sumps, or HAP-containing materials storage vessels except when they are being charged or filled, and vii. cover or shield from ambient air resin delivery systems to the wet-out area(s) from reservoirs, tanks, or sumps where practical.

¹Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place. [70 FR 50133, Aug. 25, 2005]

The Work Practice Standards in Table 4 will be added to Raven NC's permit during this renewal process.

General Compliance Requirements

§ 63.5835 What are my general requirements for complying with this subpart?

(a) You must be in compliance at all times with the work practice standards in Table 4 to this subpart, as well as the organic HAP emissions limits in Tables 3, or 5, or the organic HAP content limits in Table 7 to this subpart, as applicable, that you are meeting without the use of add-on controls.

...
(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
...

As stated above, Raven NC is only subject to the work practice requirements.

§ 63.5860 How do I demonstrate initial compliance with the standards?

(a) You demonstrate initial compliance with each organic HAP emissions standard in paragraphs (a) through (h) of §63.5805 that applies to you by using the procedures shown in Tables 8 and 9 to this subpart.

...

Table 9 to Subpart WWWW of Part 63—Initial Compliance With Work Practice Standards

As specified in §63.5860(a), you must demonstrate initial compliance with work practice standards as specified in Table 9 by submitting a certified statement that the Permittee is in compliance with the work practice requirements.

As stated above, Raven NC is only subject to the work practice requirements.

§ 63.5900 How do I demonstrate continuous compliance with the standards?

(a) You must demonstrate continuous compliance with each standard in §63.5805 that applies to you according to the methods specified in paragraphs (a)(1) through (3) of this section.

(1) Compliance with organic HAP emissions limits ...

(4) Compliance with the work practice standards in Table 4 to this subpart is demonstrated by performing the work practice required for your operation.

(b) You must report each deviation from each standard in §63.5805 that applies to you. The deviations must be reported according to the requirements in §63.5910.

(c) Except as provided in paragraph (d) of this section, during periods of startup, shutdown or malfunction, you must meet the organic HAP emissions limits and work practice standards that apply to you.

Notifications, Reports, and Records

§ 63.5905 What notifications must I submit and when?

(a) You must submit all of the notifications in Table 13 to this subpart that apply to you by the dates specified in Table 13 to this subpart. The notifications are described more fully in 40 CFR part 63, subpart A, referenced in Table 13 to this subpart.

(b) If you change any information submitted in any notification, you must submit the changes in writing to the Administrator within 15 calendar days after the change.

§ 63.5910 What reports must I submit and when?

(a) You must submit each report in Table 14 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 14 to this subpart and according to paragraphs (b)(1) through (5) of this section.

...

Table 13 to Subpart WWWW of Part 63—Applicability and Timing of Notifications

As required in §63.5905(a), you must determine the applicable notifications and submit them by the dates shown in the following table:

If your facility . . .	You must submit . . .	By this date . . .
1. Is an existing source subject to this subpart	An Initial Notification containing the information specified in §63.9(b)(2)	No later than the dates specified in §63.

Table 14 to Subpart WWWW of Part 63—Requirements for Reports

As required in §63.5910(a), (b), (g), and (h), you must submit reports on the schedule shown in the table 14.

The required reporting will be added to Raven’s renewed permit.

§ 63.5915 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (3) of this section.

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- (3) Records of performance tests, design, and performance evaluations as required in §63.10(b)(2).

...

(d) You must keep [a certified statement that you are in compliance with the work practice requirements in Table 4](#) to this subpart, as applicable.

§ 63.5920 In what form and how long must I keep my records?

- (a) You must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.
- (d) You may keep records in hard copy or computer readable form including, but not limited to, paper, microfilm, computer floppy disk, magnetic tape, or microfiche.

Other Requirements and Information

§ 63.5925 What parts of the General Provisions apply to me?

Table 15 to this subpart shows which parts of the General Provisions in §63.1 through 63.15 apply to you.

The required recordkeeping will be added to Raven's renewed permit.

Surface coating MACTs – As discussed under the last MACT toxics above, until a review of the MACT database was performed at the beginning of the review process for the previously issued name change and this permit renewal, the permit was not very clear on the surface coating operations at this facility. The equipment table contained bake ovens, spray wash lines, paint room and spray booths, but Section 2 – Specific Limitations and Conditions, Section 1 of the permit for this facility did not list surface coating operations, except for Miscellaneous Sources - SMC Paint touch-up, repair and glue operations. The spray booths were not listed under Section 2.1 and the bake ovens and paint line spray washes were listed as combustion sources, not coating operations.

Previously permitted as:

Combustion Sources: SMC paint IR bake oven (ID No. ES00451), and SMC paint preheat oven (ID No. ES00351)

Under Section 2.2 – Multiple Emission Sources, the facility is subject to 2D .0958 for VOC formulation usage in the entire facility, including SMC Painting. The facility's permit also contains two PSD Avoidance limits for VOC that only list emission source ID Nos., the ID Nos. for the spray booths are included. During this renewal process, to be consistent with similar permits that contain surface coating operations, the emission sources associated with the surface coating operations will be renamed and grouped as "surface coating operations," consisting of spray booths, bake ovens, touch-up, gluing, etc. to make it clear what emission sources are associated with the surface coating of plastic parts and products, including cleaning, touch-up, repair and gluing.

After reviewing PPPP and historical information on ASC formerly Channel Masters, prior to the site visit, they appeared to be subject to the general use coating limit under PPPP. On July 23, 2008, Ms. Lee inquired about PPPP during the meeting with Mr. Haley since it was not clear what surface coating operations were performed at their facility. After meeting with Mr. Haley and going over the facility operations and PPPP, Mr. Haley agreed that it was the general use category. They currently apply coatings using spray application in the SMC paint spray booths. Mr. Haley asked what they needed to do for PPPP. Ms. Lee informed him that they would need to submit a demonstration that they were below the emission limit and submit the supporting calculations, as well as the semi-annual reports and any other notifications required by the MACT, which the facility submitted with their next semi-annual reporting period on July 30, 2008.

40 CFR 63, Subpart PPPP, Surface Coating of Plastic Parts and Products MACT

The facility will be subject to 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products, Subpart PPPP, as indicated above [for existing affected sources subject to Subpart PPPP, the deadline for submittal was by April 19, 2007].

Notification Form received on December 12, 2005 by NCDAQ Planning Section. Notification contains a table of emission sources subject to Subpart PPPP (ID Nos. ES01151, ES01051, ES00951, ES60051, ES70051, ES80051, ES90051, ES10051, ES00451, and ES00651).

§63.4481 Am I subject to this subpart?

(a) Plastic parts and products include, but are not limited to, plastic components of the following types of products as well as the products themselves: Motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any plastic parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (5) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then **surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage**. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The **general use coating subcategory includes all surface coating operations** that are not automotive lamp coating operations, thermoplastic olefin (TPO) coating operations, or assembled on-road vehicle coating operations.

...

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.4482, that uses 378 liters (100 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.4581 in determining whether you use 378 liters (100 gallons) per year, or more, of coatings in the surface coating of plastic parts and products.

Raven NC, LLC uses 378 liters (100 gal) per year, or more (based on 2007 Emissions Inventory provided via email on July 2, 2008, SMC Spray Paint Operations throughput in 2007 was 24,578 gallons), of coatings that contain HAP in the surface coating of plastic parts and products defined in paragraph (a) of this section; and is a major source (based on 2007 EI Styrene emissions were 13.95 tpy and total HAP emissions were 17.08 tpy; therefore, Raven NC is a major source of HAP emissions because the PTE of any single HAP exceeds 10 tpy).

...

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

...

(6) **In-mold coating operations** or gel coating operations in the manufacture of reinforced plastic composite parts that meet the applicability criteria for reinforced plastics composites production (subpart WWWW of this part).

Per Mr. Haley on 7/23/2008, the facility does not do any in-mold coating operations at the Smithfield facility; therefore, they do not meet any of the exemption criteria; hence, Subpart PPPP applies.

§ 63.4482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in §63.4481(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of plastic parts and products within each subcategory.

(1) All coating operations as defined in §63.4581;

- (2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;
 - (3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and
 - (4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.
- (c) An affected source is a new source if it meets the criteria in paragraph (c)(1) of this section and the criteria in either paragraph (c)(2) or (3) of this section.
- (1) You commenced the construction of the source after December 4, 2002 by installing new coating equipment.
 - (2) The new coating equipment is used to coat plastic parts and products at a source where no plastic parts surface coating was previously performed.
 - (3) The new coating equipment is used to perform plastic parts and products coating in a subcategory that was not previously performed.
- (d) An affected source is reconstructed if you meet the criteria as defined in §63.2.
- (e) An affected source is existing if it is not new or reconstructed.

All coating operations were installed and operated prior to December 4, 2002 (The initial Title V permit (05529T17) for this facility, formerly Channel Master, Incorporated, was issued on January 23, 2002 and the only modifications since that time have been name/ownership changes); therefore, Raven NC, LLC is an existing source.

Emission Limitations

§63.4490 What emission limits must I meet?

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.4541, §63.4551, or §63.4561.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period. ...

§63.4491 What are my options for meeting the emission limits?

You must include all coatings (as defined in §63.4581), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4490. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.4530(c), and you must report it in the next semiannual compliance report required in §63.4520.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §63.4540, 63.4541, and 63.4542 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §63.4550, 63.4551, and 63.4552 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* – **NO ADD-ON CONTROLS IN PLACE**

§63.4492 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits. ...

§63.4493 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

There are no add-on controls; therefore, Raven is not required to meet any operating limits or work practice standards.

General Compliance Requirements

§63.4500 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.4491(a) and (b), must be in compliance with the applicable emission limit in §63.4490 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i). [69 FR 20990, Apr. 19, 2004, as amended at 71 FR 20465, Apr. 20, 2006]

§63.4501 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §63.1 through 63.15 apply to you. Notifications, Reports, and Records

§63.4510 What notifications must I submit?

(a) *General.* You must submit the notifications in §63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* ... For an existing affected source, you must submit the initial notification no later than 1 year after April 19, 2004. ... [Submitted as indicated above]

(c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.4540, §63.4550, or §63.4560 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in §63.9(h).

... [Initial compliance period for existing sources ends on April 30, 2008, existing source due May 31, 2008. NO monthly reporting is required during the initial compliance period.]

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 1 of §63.4541.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total mass of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using [Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.4551.](#)

(iii) For the emission rate with add-on controls option – N/A

(9) For the emission rate with add-on controls option – N/A

(10) If you are complying with a [single emission limit representing the predominant activity under §63.4490\(c\)\(1\), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in §63.4490\(c\)\(1\).](#)

(11) If you are complying with a [facility-specific emission limit under §63.4490\(c\)\(2\),](#) include the calculation of the facility-specific emission limit and any supporting information as specified in §63.4490(c)(2).

[69 FR 20990, Apr. 19, 2004, as amended at 69 FR 22661, Apr. 26, 2004]

§63.4520 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section. ... [Begins the day after the end of the initial compliance period, ends June 30 or December 31, whichever is first. First report for existing sources due July 31, 2008.]

§63.4530 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard. ...

§63.4531 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You may keep the records off-site for the remaining 3 years.

...

§63.4541 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. ... Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to re-determine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

...

(4) Information from the supplier or manufacturer of the material. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

Per Mr. Haley, they will use the MSDS sheets.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP, which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. ...

(b) *Determine the mass fraction of coating solids for each coating.* You must determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (3) of this section.

...

(3) Information from the supplier or manufacturer of the material. You may obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between such information and the test method results, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) Calculate the organic HAP content of each coating. Calculate the organic HAP content, kg (lb) organic HAP emitted per kg (lb) coating solids used, of each coating used during the compliance period using **Equation 1** of this section:

$$H_c = \frac{W_c}{S_c} \quad (\text{Eq. 1})$$

Where:

H_c= Organic HAP content of the coating, kg (lb) of organic HAP emitted per kg (lb) coating solids used.

W_c= Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

S_c= Mass fraction of coating solids, kg coating solids per kg coating, determined according to paragraph (b) of this section.

Raven NC is subject to the general use emission limitation under Subpart PPPP as discussed above. During this permit renewal the requirements will be added to the renewed permit, with the except of the add-on controls option, since there are no add-on controls used to comply with this standard; therefore that option has been omitted.

§ 63.4581 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

...

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

...

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (e.g., depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, [paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants](#). Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to [apply cleaning materials](#) to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to [apply coating to a substrate](#) (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

...

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

...

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any coating operation that is not an automotive lamp, TPO, or assembled on-road vehicle coating operation.

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §63.4541. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of coating solids means the ratio of the mass of solids (also known as the mass of nonvolatiles) to the mass of a coating in which it is contained; kg of coating solids per kg of coating.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per mass of coating solids used for a coating calculated using Equation 1 of §63.4541. The organic HAP content is determined for the coating in the condition it is in [when received from its manufacturer or supplier](#) and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

...

Plastic part and product means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

...

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

...

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Based on the above definitions, the inks used in the pad printing operations are included in the surface coating operation along with repainting, touchup and repair. The maintenance shop and carpentry shop are exempt based on the above definition; however, after meeting with Raven staff and their consultants on June 10, 2010 the maintenance shop and carpentry shop are no longer in operation and have been removed from the facility; thus, they will be removed from the permit during this renewal.

40 CFR 63, Subpart M, Surface Coating of Miscellaneous Metal Parts and Products MACT

40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products, Subpart M [for existing affected sources subject to Subpart M, the deadline for submittal was by January 2, 2007].

Notification Form – not received. The facility was not aware of this MACT requirement

During the site visit on July 23, 2008, Mr. Haley showed Ms. Lee the pad printer operations where they stamp logos on the finished satellites. The satellites located at the pad printers were metal, not composite. Ms. Lee asked Mr. Haley about the metal satellites because there was no indication that the facility manufactured metal products, only the composite satellites and metal mounting brackets. Mr. Haley said that they still manufacture some metal satellites, but the demand has slowed down significantly. The facility receives metal coils that are stamped (cut in circles), compressed, cleaned, powder coated, then ink stamped and packaged. Ms. Lee also had the opportunity to see the metal mounting brackets used for mounting the composite and metal satellites and antennas. The mounts are fabricated, washed, dried, powder painted, baked and packaged. Mr. Haley said that the waste water is treated with zinc and phosphate. After the walk through, we discussed the surface coating operations and the miscellaneous metal parts and products MACT. Ms. Lee discussed with Mr. Haley that the facility is possibly subject to Subpart M as well as Subpart P and W, but since they are using powder instead of spray coating for the metal satellites and mounting brackets, they may be exempt if the powder coating meets the definition of a non-HAP coating.

The permit contained no mention of powder coating operations, nor did previous inspection reports prior to the May 21, 2008 report prepared by Mr. Steven Carr and received via email on July 2, 2008; which indicated that the two paint line spray washes (ID No. 12 & 13) “Units 12 and 13 are used to prepare metal before paint is applied.”

Mr. Haley said that the powder paints contain no HAP. During the site visit we discussed the powder coating operations and that they would possibly not have any requirements under M, but I would need to look through both MACTs in detail to see if there was an exemption that applied to their facility or not, then at that time the permit would be modified to account for one or both (metal and plastic) surface coating operations if applicable. After reviewing both MACT standards, there is currently no exemption for Powder Coating; thus, the permit will be drafted with both MACTs.

§63.3881 Am I subject to this subpart?

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations. ...

Raven NC falls under the general use coating subcategory.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3882, that uses 946 liters (250 gallons (gal) per year, or more), of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to §63.3941(a).

...

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

...

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. ...

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. ...

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in §63.3890. ...

As previously stated, during the site visit Mr. Haley indicated that they used non-HAP coatings in the powder coating operations. However, they do not track the material usage based on each coating operation (plastic or metal substrates). Mr. Haley also stated that they used lacquer thinner for some cleanup now, previously used for mixing with Nickel paint. He stated that they submit quarterly reports based on usage and how they track emissions for their two VOC PSD Avoidance limits. Currently, they are coating more plastic parts than metal; however, if demand changes, they could be coating more metal than plastic, so for ease of compliance he requested to comply with the more stringent of the two MACTs.

§ 63.3882 What parts of my plant does this subpart cover?

- (a) This subpart applies to each new, reconstructed, and **existing affected source** within each of the four subcategories listed in §63.3881(a).
- (b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of miscellaneous metal parts and products within each subcategory.
- (1) All coating operations as defined in §63.3981;
- (2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;
- (3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and
- (4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.
- (c) An affected source is a **new affected source** if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.
- (d) An affected source is reconstructed if it meets the criteria as defined in §63.2.
- (e) An affected source is existing if it is not new or reconstructed.

All coating operations were installed and operated prior to August 13, 2002 (The initial Title V permit (05529T17) for this facility, formerly Channel Master, Incorporated, was issued on January 23, 2002 and the only modifications since that time have been name/ownership changes); therefore, Raven NC, LLC is an existing source under both subparts MMMM and PPPP as defined in 40 CFR § 63.3882 and 63.4482.

Emission Limitations

§63.3890 What emission limits must I meet?

- (a) For a new or reconstructed affected source, ...
- (b) For **an existing affected source**, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.3941, §63.3951, or §63.3961.
- (1) For **each existing general use coating affected source**, limit organic HAP emissions to **no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids** used during each 12-month compliance period. ...

Demonstration showing more stringent MACT

The affected sources under MACTs PPPP and MMMM are existing sources and fall under the general use coating category. Therefore, as discussed above under emission limitations, the general use emission limits (EL) for existing sources and appropriate units by MACTs are:

Subpart MMMM EL = 2.6 pounds (lb) organic HAP per gallon (gal) coating solids

Subpart MMMM **Mandatory conversion factor** = 10.5 lb solids/gal solids

$$2.6 \text{ lb organic HAP/gal coating solids} * 1 \text{ gal solids}/10.5 \text{ lbs solids} = 0.2476 \text{ lbs organic HAP/lbs solids}$$

Subpart PPPP EL = 0.16 lb organic HAP/lb coating solids

Subpart PPPP **Mandatory conversion factor** = 12.5 lb solids/gal solids

$$0.16 \text{ lb organic HAP/lb coating solids} * 12.5 \text{ lb solids/gal solids} = 2.0 \text{ lb HAP/gal solids}$$

Thus, the general use emission limit for PPPP is more stringent as shown above (0.25 lb organic HAP/lb coating solids allowed under MMMM is greater than **0.16 lb HAP/lb solids** allowed under PPPP); therefore, per the facility's request to use PPPP as the primary MACT and show compliance with MMMM by demonstrating compliance with PPPP, which is more stringent, the renewed permit will be streamlined as allowed under Title 40 – Protection of Environment, Part 70 – State Operating Permit Programs.

§ 70.6 Permit content – (a) Standard permit requirements. Each permit issued under this part shall include the following elements:

(1) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. ...

(3) Monitoring and related recordkeeping and reporting requirements. (i) Each permit shall contain the following requirements with respect to monitoring:

(A) All monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, including part 64 of this chapter and any other procedures and methods that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act. If more than one monitoring or testing requirement applies, the permit may specify a streamlined set of monitoring or testing provisions provided the specified monitoring or testing is adequate to assure compliance at least to the same extent as the monitoring or testing applicable requirements that are not included in the permit as a result of such streamlining; ...

Therefore, the emission limitations and standards; and required monitoring and related recordkeeping and reporting requirements under Subpart PPPP satisfies criteria established in Subpart MMMM to provide reasonable assurance of compliance with applicable requirements for both MACT standards as required per § 70.6(a)(3)(i)(A), based on the following:

- ✓ the emission limit under Subpart PPPP is more stringent (as demonstrated above)
- ✓ both MACTs have the same compliance options
 - 1) Complaint Coatings
 - 2) Emission rate without add-on controls
 - 3) Emission rate with add –on controls
- ✓ both MACTs have the same monitoring, recordkeeping and reporting requirements

In conclusion, the facility will use the general use emission limit for existing sources under Subpart PPPP to demonstrate compliance with the general use emission limit under MMMM, which has previously been approved for other facilities within NC that coat both substrates. This facility does not use add-on controls to comply with either MACT standard, so only compliance options 1 and 2 will be placed in the permit. The Permittee may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. The Permittee may use different compliance options for different coating operations, or at different times on the same coating operation. The Permittee may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, the Permittee may not use different compliance options at the same time on the same coating operation and they must have 12 months of data prior to changing compliance options.

In an effort to streamline this renewed permit and reduce the burden on this facility, the existing source emission limit under the General Use Category of Subpart PPPP will be placed in Ravens renewed permit and Subpart MMMM compliance will be demonstrated by the requirements of Subpart PPPP. However, under Subpart PPPP if the facility installs new equipment to perform coating operations in a subcategory other than the general use coating category, the new equipment will be considered new sources and the permit will need to be revised as such. Under Subpart MMMM, a new source means a completely new coating facility, where no such facility existed (ground up facility). Based on a review of the definitions for each of the Subject MACTs, there are only a few definitions that vary from Subpart MMMM and PPPP (as summarized below). Both surface coating MACTs cover the same operations and for the most part exempt the same type of operations; however, the two applicable surface coating MACTs have different units which is a preference of the project manager involved in the rulemaking process; thus, each rule has a mandatory conversion factor that enables you to convert to the units of either MACT as demonstrated above; therefore, compliance with Subpart PPPP will demonstrate compliance with MMMM as long as all of the units are converted using the appropriate mandatory conversion factor.

Compliance Requirements for the Compliant Material Option

§ 63.3940 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.3941. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.3941 and supporting documentation showing that during the initial compliance period, you used no coating with an organic

HAP content that exceeded the applicable emission limit in §63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.3941(a).

§ 63.3941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) Determine the mass fraction of organic HAP for each material used. You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (e.g., 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (e.g., 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to subpart P of this part, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to subpart P of this part, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(4) Information from the supplier or manufacturer of the material. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends*. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

...

§ 63.3981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive – same as PPPP ...

Adhesive, adhesive coating – same as PPPP ...

Cleaning material – same as PPPP

Coating – same as PPPP

Coating operation – same as PPPP ...

Emission limitation – same as PPPP ...

Exempt compound – same as PPPP ...

Facility maintenance – same as PPPP

General use coating means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section.

...

Hobby shop – same as PPPP ...

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods [specified in §63.3941](#). Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP – same as PPPP

Month – same as PPPP

Non-HAP coating – same as PPPP

Organic HAP content means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using [Equation 2 of §63.3941](#). The organic HAP content is determined for the coating in the condition it is in [when received from its manufacturer or supplier](#) and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

...

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils. Protective oils used on [miscellaneous metal parts and products](#) include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

Reactive adhesive – same as PPPP

Research or laboratory facility – same as PPPP ...

Surface preparation – same as PPPP

Thinner – same as PPPP

Total volatile hydrocarbon (TVH) – same as PPPP

Uncontrolled coating operation – same as PPPP

Volatile organic compound (VOC) – same as PPPP

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is contained; liters (gal) of coating solids per liter (gal) of coating.

Wastewater – same as PPPP

As stated under Subpart PPPP, the inks used in the pad printing operations are included in the surface coating operation along with depainting, touchup and repair. The inks are used on both plastic (composite) and metal satellite dishes; thus, the inks are part of the coating operation or affected source for PPPP and MMMM as well.

During the facility meeting on June 10, 2010, Raven, their consultants and DAQ went over the draft permit. The powder coating operations were discussed in detail. Based on the information discussed during the meeting, the powder booth is not vented to atmosphere. Excess powder is recycled with a non-vented fabric filter; the only emissions from the powder coating operation are particulate emissions from combustion of fuel used in the curing ovens and the heated wash lines. Raven's consultants inquired as to why the powder coating operations were on the draft permit because the emissions were below 5 tons per year. DAQ's response was since they were currently listed on the permit, it was assumed that the emissions were greater than 5 tpy; however, the bake and curing ovens and paint line spray washes were listed as combustion sources, not coating operations (as previously discussed under Surface Coating Operations in this Section). Therefore, during this renewal process, the descriptions were revised to indicate that they were coating operations, which is typically how this type of source is describe in our Title V permits. I explained to the facility and their consultants that if Raven provides a demonstration that the criteria emissions were below 5 tpy and HAPs were below the 1000 pounds per year threshold value, as long as the MACT did not require them to be on the permit, we could move them to the insignificant activities list. I explained that I would check when I returned to the office and look over the MACTs (Please see June 14, 2010 email correspondence) and get back to them, but I didn't recall an exemption for Powder Coating.

In addition, Raven plans to install a replacement line to replace the powder coating line that was taken out of service in 2007 as requested with an application amendment to this permit renewal and processed with the previous name change. It was brought to their attention that since the source is no longer listed on the permit, they may need to submit a permit application, unless a demonstration can be made that they are insignificant. If it is determined that they are insignificant, then they would not need a permit modification to install the replacement line.

After a more thorough review of Subpart MMMM, Ms. Lee emailed a response to the facility on June 14, 2010 regarding the powder coating lines, which indicates that if the facility submits a demonstration that the entire coating operation emissions are below the threshold limits and provide the determination required under§63.3941(a), then we could move them to the insignificant activities list (Please see discussion under Section 10).

15A NCAC 2Q .0512, Permit Shield for Nonapplicable Requirements

Raven's current permit contains the following language:

- A. 15A NCAC 2Q.0512 is not applicable to the Carpenter Shop because it is a non-production operation used to build trade show displays and prototypes for R&D engineering.
- B. 15A NCAC 2Q.0512 is not applicable to Truck Maintenance shop painting operation because it is a non-production operation used to paint railing, platforms, ladders and forklifts.

The above activities were previously exempt from permitting under 2Q .0102(c); however, since that time a new rule to address insignificant activities at Title V facilities passed and DAQ's new procedures (memo dated July 27, 2000) now require Title V facilities to use 2Q .0503(7) and (8) to determine what activities at their facilities are considered "insignificant" for permitting purposes. Although 2Q .0503 does not have any of the exclusions, otherwise known as the "filters" under the 2Q .0102 rule, for Title V facilities, there is a presumption that activities previously exempt under 2Q .0102 meet the "insignificant activities" criteria under 2Q .0503. As permits are revised, the permit attachments that currently list exempt activities will be updated to correctly cite 2Q .0503. Therefore, at this time the above sources are being moved to the insignificant activities list and are being removed from 2Q .0512.

6. NSPS, NESHAPS, PSD, Attainment Status, 112(r), and CAM

NSPS

New Source Performance Standards (NSPS) do not apply to this facility.

NESHAP/MACT

Raven NC is a major Title V facility with potential facility-wide VOC emissions that exceed the Title V threshold for criteria pollutants of 100 tpy, as well as, a major source of HAP emissions because the PTE of any single HAP exceeds 10 tpy (styrene emissions based on EI are greater than 10 tpy – See discussion under Section 5 above). Hence, National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations or 15A NCAC 2D .1111 “Maximum Achievable Control Technology” **do** apply to this facility. As indicated in Section 5 above, the facility is subject to MACT Subpart WWWW, PPPP, & MMMM requirements for existing affected sources. All applicable requirements associated with emission standards, performance testing, monitoring, record keeping, and reporting will be included in the renewed permit.

PSD/NAAQS

The facility is currently classified as a **MAJOR** stationary source for the purpose of the Prevention of Significant Deterioration (PSD) permitting program (see 15A NCAC 2D .0530). The facility’s permit currently contains two PSD avoidance limits of less than 250 tons per year (tpy) each for volatile organic compounds (VOC) emissions.

The PSD minor source baseline dates for PSD increment tracking was triggered on October 28, 1981 in Johnston County for particulate matter (PM₁₀) and sulfur dioxide (SO₂) emissions. However, there are NO increases in emissions associated with this renewal.

Attainment Status

VOC emissions - Based on the EPA’s **Boundary Designations for the 1997 8-Hour Ozone Standard - EPA Region 4 (as of September 18, 2009)** Johnston County’s “**Current/Proposed Classification**” is listed as “maintenance.” EPA plans to designate geographic areas as attaining or not attaining the 2008 ground-level ozone standards by March 12, 2010. EPA has requested that states and tribes submit recommendations to EPA by March 12, 2009. Based on North Carolina’s “Area Designations for the 2009 Revised Ozone National Ambient Air Quality Standards” memo dated March 12, 2009, North Carolina’s recommendation for Johnston County is “nonattainment.”

PM emissions – Based on NC DAQ’s Planning and Attainment for PM_{2.5} Nonattainment Areas, the only counties designated as non attainment are Catawba, Davidson and Guilford.

112(r)

Per Form A3, 112(r) Applicability Information, this facility is not subject to 40 CFR Part 68 “Prevention of Accidental Releases” - Section 112(r) of the Federal Clean Air Act (Act) requirements because it does not use any of the regulated substances in quantities above the thresholds in the Rule that require a Risk Management Plan (RMP).

CAM

A Compliance Assurance Monitoring (CAM) (40 CFR Part 64) determination is required during the renewal process because this facility is a Title V facility with potential emissions that exceed the Title V major source levels without considering controls; however, there are no sources subject to an emission limitation or standard that require controls in order to comply with the emission limitation; hence, CAM does **not** apply.

7. Facility Wide Air Toxics

Raven NC’s current permit contains 2D .1100 emission limits based on modeling performed in 1995 and 2001 while operating under Channel Master. The permit contains 2D .1100 limits for styrene, nickel and xylene on a source-by-source basis. The current permit also contains 2Q .0711 TPERs for methyl ethyl ketone and methyl isobutyl ketone.

Based on the 2007 Emissions Summary provided by Mr. Haley and the 2006 EI from IBEAM, the TAP emissions have decreased 13-41% from the previous year.

Pollutant	CAS Number	2007 EI (pounds per year)	2006 EI (lb/yr)	TPER
Nickel metal Currently has 2D .1100 limit in permit	7440-02-0	31.95 (0.123 lb/day @ 260 days/yr)	43.65	0.13 lb/day
Formaldehyde Add to TPER table	50-00-0	2.81 (0.001 lb/hr @ 2,600 hrs/yr)	4.76	0.04 lb/hr
Hexane, n- Add to TPER table	111-54-3	67.39 (0.259 lb/day @ 260 days/yr)	114.26	23 lb/day
Methyl chloroform Add to TPER table	71-55-6	3.41 (0.013 lb/day @ 260 days/yr) (0.001 lb/hr @ 2,600 hrs/yr)	3.96	250 lb/day & 64 lb/hr
Methyl ethyl ketone (2-butanone) Currently listed under TPER table in permit	78-93-3	14.75 in AERO NR in IBEAM	20.15	78 lb/day & 22.4 lb/hr
Methyl isobutyl ketone Currently listed under TPER table in permit	108-10-1	14.75 (AERO) 376.04 (1.45 lb/day @ 260 days/yr) (0.145 lb/hr @ 2,600 hrs/yr)	20.15	52 lb/day & 7.6 lb/hr
Styrene Currently has 2D .1100 limit in permit	100-42-5	22,373.12 (8.6 lb/hr) in AERO 27,896.4 (10.73 lb/hr)	28,694.18	2.7 lb/hr
Toluene Add to TPER table	108-88-3	4,218.54 in AERO 4,179.21 (16.074 lb/day @ 260 days/yr) (1.601 lb/hr @ 2,600 hrs/yr)	5,762.76	98 lb/day & 14.4 lb/hr
Xylene Currently has 2D .1100 limit in permit	1330-20-7	3,108.94 in AERO 1,585.10 (6.097 lb/day @ 260 days/yr) (0.610 lb/hr @ 2,600 hrs/yr)	4,247.22	57 lb/day & 16.4 lb/hr

NR = Not Reported

Actual operating hours for 2007 were listed as follows:

SMC Fiberglass Closed-Molding Operations:

16 hours per day * 5 days per week * 52 weeks per year = 4,160 hours per year

SMC Paint Spray Operations, Powder Painting, Pad Printing, & TMC Fiberglass Manufacture:

10 hours per day * 5 days per week * 52 weeks per year = **2,600 hours per year**

5 days per week * 52 weeks per year = **260 days per year**

Based on a preliminary review, the facility needs to submit a toxics determination in accordance with 2Q .0705 (See Section 5 for Last MACT toxics demonstration discussion). During RCO's visit to the Smithfield facility on July 23, 2008, Mr. Haley provided Ms. Lee with a copy of styrene modeling that was performed by TRC Environmental Corporation July 2006. As discussed in Section 5 above, this needs to be re-evaluated using current meteorology data. The current permit also contains 2D .1100 limits for Nickel and Xylene. Mr. Haley indicated that they were reducing the usage of the nickel paint (which will also result in a reduction of the lacquer thinner used to mix the nickel paint) because of the costs. Based on the 2007 EI and the hours of operation, the only pollutant above the TPER is styrene; thus, per Division guidance dated December 9, 1998, "a facility does not need to submit a toxics demonstration if all actual emissions are less than the TPERs in 2Q .0711. Facilities claiming their actual emissions are less than the TPERs should provide documentation to this effect. The appropriate TPER conditions will be placed in the facilities permit." Therefore, the TPER limits for Nickel Metal and Xylene will replace the current 2D .1100 modeled emission limits in the renewed permit since the facilities actual emissions are now below the TPER (See Table 1 – Facility North Carolina TAP Emission Summary – modeling submittal dated June 7, 2010). Per discussions with Mr. Haley the facility does not plan

on increasing the usage of the nickel paint. However, if the facility does decide at some point to begin using the nickel paint, they will be required to perform modeling at that time. In addition, based on the EI the facility emits Formaldehyde, n-Hexane, Methyl Chloroform and Toluene below their respected TPERs; therefore, they will be added to the TPER table in the renewed permit.

8. Statement of Compliance

Mr. Brian Bland, Raleigh Regional Office (RRO), last inspected the facility on July 9 2009. No specific reference was made to MACT requirements, so it is this review engineer's assumption that the facility is in compliance at this time.

[Insert from inspection report]

INSPECTION SUMMARY: *On July 9 2009, I met with Pete Harkins, Group Leader, (his contact number is 989-2293) as Larry Haley was out of the office to conduct a compliance inspection. The facility had been recently had an ownership change and has been renamed Raven NC, LLC. The application for ownership change was received by RCO on June 22, 2009. The facility has about 100 to 150 employees.*

FIVE YEAR ENFORCEMENT HISTORY: *According to the RRO compliance databases, the facility was issued a Notice of Violation (NOV) dated November 6, 2006 for the late submittal of the 3Q 2006 report.*

CONCLUSIONS/RECOMMENDATIONS: *Based on observations made during the inspection, the facility appeared to be operating in compliance with all permit requirements. The facility should be inspected again in one year.*

9. Stipulation Review

RRO had the following comments:

Based on email response from Mr. Charles McEachern, RRO on August 2, 2006 regarding this facility's renewal application and other RRO facilities in house at that time:

"I'm not aware of any issues with these facilities, and will look at them more closely when you send me your drafts."

Regional P&O Review dated July 6, 2009 received from Ms. Dena Pittman, RRO via email on July 7, 2009:

The facility submitted an ownership change application. There does not appear to be any emission source/control equipment or regulatory changes requested.

Review of Application:

- *Per Form AA, the facility has requested a name change from ASC Signal Corporation to Raven NC, LLC.*
- *An ownership change effective date is listed as May 30, 2009 and has been signed by Doug May, Operations Manager. May need to verify if this individual qualifies for responsible official and if the ownership change has been applied for through the NC Secretary of State office.*
- *Facility contact information will need to be updated.*

Compliance Status:

Inspections – Based on the most recent compliance inspection conducted on May 21, 2008 by Steven Carr, the facility appeared to be in compliance with all permit requirements.

10. Conclusions, Comments, and Recommendations

- ✓ A professional engineer's seal was not required for this renewal.
- ✓ A consistency determination was not required for this renewal.
- ✓ RRO recommends issuance of the permit and DOES request a DRAFT permit prior to issuance as specified under Section 9 above. All of RRO's recommends have been addressed at this time.
- ✓ RCO concurs with RRO's recommendation to issue the renewed air permit No. 05529T20.

A draft permit and review were emailed to Ms. Pittman and Mr. McEachern, RRO on October 22, 2009 for review.

A draft permit was emailed to Mr. Haley on October 22, 2009 for review and comments. Through several different means of correspondence (e.g. emails, telephone conversations, and mail delivery services) Mr. Haley and DAQ discussed the draft renewal permit and the remaining issues which need to be resolved prior to sending the permit to notice. Due to the time frame, the ownership/name change was unconsolidated and issued separately. In addition, the facility hired a consultant to go over the draft permit and perform revised styrene modeling. As a result, they requested a meeting to discuss the requested changes which were emailed on June 8, 2010.

After the discussions during the June 10, 2010 meeting as discussed in previous sections of this review, DAQ sent an email response to Raven and their consultants on June 14, 2010 stating the following:

“In general, you are required to obtain a permit IF you are a stationary source. Then, we look at each source’s potential emissions in determining whether they are considered:

- *insignificant activities (meaning the potential uncontrolled emissions of each criteria pollutant are less than 5 tons per year (tpy) and the potential uncontrolled emissions of each hazardous air pollutant (HAP) are less than 1000 pounds per year); as such there is no requirement to obtain a permit to construct or operate these emission units. Thus, a State construction permit application submittal is not required. However, any notices or other requirements that may be required under an NSPS or MACT are still applicable. Insignificant activities are not required to be on the Title V permit; however, that does not relieve the facility from any applicable requirements the unit may be subject to under 15A NCAC 2D; or*
- *required to be permitted (i.e. potential uncontrolled emissions are greater than 5 tpy for criteria pollutants and HAPs are greater than 1000 pounds per year), in accordance with 15A NCAC 2Q .500 – Title V Procedures, unless exempted.*

For the sources that we discussed moving to the insignificant activities table, as long as you submit documentation that demonstrates the criteria pollutants are below 5 tpy and HAPS are below 1000 lbs/y threshold values mentioned above, then we can remove them from the permit and place them on the insignificant activities table.

For the powder coating lines, since there is no specific exemption for powder coating, you must provide a demonstration that the entire coating operation (as defined under §63.3881(a)(1) inserted below) emissions are below the threshold limits and provide the determination required in §63.3941(a) as discussed under §63.3881(c)(1) (inserted below), that the coating operation uses no organic HAPs. If this documentation is provided, then the Powder Coating Operation can be move to the insignificant activities list. For the replacement line, you would be required to perform the same demonstration, then no permit modification would be required. You would only need to request that the line be added to the insignificant activities list. Also, as part of the renewal we can add a non-applicable section indicating that MACT MMMM does not apply, as long as the required demonstration is provided.”

On June 16, 2010, Raven submitted a Subpart MMMM Exemption and Insignificance Demonstration.

On June 23, 2010, Mr. Mark Yoder, Air Quality Analysis Branch, issued a memorandum regarding the modeling analysis for Styrene emissions indicating compliance with the AAL for styrene on a source-by-source basis.

As a result of the meeting discussions, June 16th submittal and June 23rd modeling approval, the following changes were made to the draft permit prior to public notice and EPA review:

- 1) The Powder Coating Operations were exempted from permitting requirements and placed on the insignificant activities list and Section 2.3 – Permit Shield for Nonapplicable Requirements.

Old ID No.	New ID No.	Source Description	Basis of Determination
ES10	IS-10	Powder Painting Line – Department 52	Emissions associated with this line are from natural gas combustion units, specifically, two wash tank burners, a dry-off oven and a curing oven. The powder paint booth is not vented to atmosphere. Excess powder is recycled with a non-vented fabric filter. Per the MSDS sheet provided the powder coatings used on this line contain no HAPs. The only criteria pollutant emissions from the powder coating operation are from combustion of fuel used in the curing ovens and the heated wash lines.
ES11	IS-11		
ES12	IS-12		
ES13	IS-13		
ES12052	IS-12052		
ES50052	IS-50052		

- 2) The new Powder Coating replacement line will be added to the insignificant activities list and Section 2.3 – Permit Shield for Nonapplicable Requirements (New ID Nos. IS-18, IS-19, IS-21, IS-23, IS-24, and IS-10091).
- 3) In addition to the powder coating operations, the following sources were removed from the permit and placed on the insignificant activities list per the facility request and insignificant status demonstration (see calculations) received on June 16th:
- ✓ #7 Tool Crib (ID No. ES06642; new ID No. IS-06642)
 - ✓ #50 repair station (ID No. ES77750; new ID No. IS-77750)
- 4) The following insignificant sources not currently on the permit were added to the insignificant activities list per the facility request and insignificant status demonstration (see calculations) received on June 16th:
- ✓ New Burn-off oven for paint hangers (ID No. IS-20091)
 - ✓ Two cold cleaning degreaser units (ID Nos. IS-00137 and IS-00147)
 - ✓ Mold deflashing area with fugitive dust collector (ID No. IS-04650)
- 5) The following revised modeled emission rates for styrene (See Table 2 – Modeled Styrene Source Parameters) will be placed in the renewed permit per approved modeling memo:

Source ID	Emission Source ID	Source Description	Emission Rate (lb/hr)
FAN1	ES04150 & ES05150	Penthouse Exhaust Vent	0.68
FAN2	ES02150 & ES03150	Penthouse Exhaust Vent	0.68
FAN3	ES00150 & ES01150	Penthouse Exhaust Vent	0.68
SMC3	ES00150 & ES01150	Compression Molding Machines (2) Exhaust Fan	0.68
SMC4	ES02150 & ES03150	Compression Molding Machines (2) Exhaust Fan	0.68
SMC5A	ES04150	Compression Molding Machine Exhaust Fan	0.68
SMC5B	ES05150	Compression Molding Machine Exhaust Fan	0.68
TMC3	ES00167	TMC Mix - Production	5.21
TMC6	ES01367	Resin and Styrene Storage	0.45
TMC7	ES01467	Resin and Styrene Storage	0.25
TMC8	ES01267	Resin and Styrene Storage	0.74
Total Facility-Wide Styrene			11.41

An additional toxics issue that needs clarification:

three sources of styrene that are currently listed under 2D .1100 were previously modeled when operating under Channel Master's are not listed in new table above:

- TMC Paste Mixer (ID No. ES02167)
- TMC Mixing Floor Scales (ID No. ES01867)
- Compound Storage Room (ID No. 00050)

Table 1 – Channel Master Estimated Styrene Emissions

Stack Number	Source Number	Description
SMC 3, 4, 5	ES00150, ES01150, ES02150, ES03150, ES04150, ES05150	Compression Molding Machines ESCM 700, 1000, 1500-1, 1500-2, 2000-1, 2000-2
SMC 8	ES00050	Storage Compound
TMC 3	ES02167, ES00167	TMC Mixing, Weighing, Machine
TMC 6, 7, 8	ES01267, ES01367, ES01467	Polyester Resin Bulk Storage Tank, LP Resin Bulk Storage Tank, Styrene Bulk Storage Tank
TMC 4	ES08750	Log Extrusion
TMC 5a	ES06150	1600-ton Injection Molding Press
TMC 5b	ES07150	1600-ton Injection Molding Press
TMC 5c	ES08150	2700-ton Injection Molding Press
TMC 5d	ES09150	2200-ton Injection Molding Press
TMC 5e	ES10250	2700-ton Injection Molding Press
TMC 5f	ES10150	2000-ton Injection Molding Press

On August 11, 2010 DAQ sent an email regarding the above sources to Raven's consultants asking for clarification. A response was received later that day and included a revised Table 2 (inserted below) indicating that the Emission Sources above were included in the revised modeling demonstration. Therefore, the following emission rates and corresponding emission source IDs will be placed in the renewed permit.

Revised Table 2 – Modeled Styrene Source Parameters

Source ID	Emission Source IDs	Source Description	Emission Rate (lb/hr)	Emission Rate (g/s)
FAN1	ES04150, ES05150	Penthouse Exhaust Vent	0.68	0.0858
FAN2	ES02150, ES03150	Penthouse Exhaust Vent	0.68	0.0858
FAN3	ES00150, ES01150	Penthouse Exhaust Vent	0.68	0.0858
SMC3	ES00150, ES01150	Compression Molding Machines (2) Exhaust Fan	0.68	0.0858
SMC4	ES02150, ES03150	Compression Molding Machines (2) Exhaust Fan	0.68	0.0858
SMC5A	ES04150	Compression Molding Machine Exhaust Fan	0.68	0.0858
SMC5B	ES05150	Compression Molding Machine Exhaust Fan	0.68	0.0858
TMC3	ES00167, ES01867, ES02167	TMC Mix - Production	5.21	0.6563
TMC6	ES13167	Resin and Styrene Storage	0.45	0.0570

Source ID	Emission Source IDs	Source Description	Emission Rate (lb/hr)	Emission Rate (g/s)
TMC7	ES14167	Resin and Styrene Storage	0.25	0.0320
TMC8 & SMC8	ES12167 & ES00050	Resin Compound and Styrene Storage	0.74	0.0931

g/s = grams per second

lb/hr = pounds per hour

11. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above.

Public Notice to Affected States of the DRAFT Title V Permit began on XXXX, 2010 and ended on XXXX, 2010.

Comments Received on the Draft Permit –
XXXX

Public Notice of the DRAFT Title V Permit ran from XXXX, 2010 to XXXX, 2010.

Comments Received on the Draft Permit –
XXXX