



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: December 12, 2011

RE: Exelis Incorporated / 003-31123-00185

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot12/3/07



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Bradyn Sterling
Exelis Incorporated
7310 Innovation Blvd
Fort Wayne, Indiana 46818

December 12, 2011

Re: 003-31123-00185
Third Registration Notice-Only Change to
R003-25123-00185

Dear Bradyn Sterling:

ITT Corporation was issued a Registration No. R003-25123-00185 on March 25, 2009 for a stationary communications equipment and meteorological instrument manufacturing plant located at 7310 Innovation Blvd, Fort Wayne, Indiana 46801. On November 4, 2011, the Office of Air Quality (OAQ) received a letter from the source requesting a company name change. Pursuant to 326 IAC 2-5.5-6, the registration is hereby revised as follows, with deleted language as ~~strikeouts~~ and new language **bolded**:

1. requesting that the registration be updated to indicate a change in ownership and company name change to Exelis Incorporated. This change to the registration is considered a notice-only change pursuant to 326 IAC 2-5.5-6(d)(3).

The company name has been revised throughout the registration as follows:

Company Name: ~~ITT Corporation~~
Exelis Incorporated

IDEM, OAQ has decided to make additional revisions to the registration as described below. The registration has been revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

2. IDEM, OAQ has decided to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address. Section A.1 of the registration and the reporting forms has been revised as follows:

Mailing Address: ~~PO Box 731, Fort Wayne, Indiana 46801-0734~~

3. Pursuant to 326 IAC 2-7-1(39), starting July 1, 2011, greenhouse gases (GHGs) emissions are subject to regulation at a source with a potential to emit 100,000 tons per year or more of CO₂ equivalent emissions (CO₂e). Therefore, CO₂e emissions have been calculated for this source. Based on the calculations the unlimited potential to emit greenhouse gases from the entire source is less than 100,000 tons of CO₂e per year (see Appendix A for detailed calculations). This did not require any changes to the permit.

The source shall continue to operate according to 326 IAC 2-5.5. Please find enclosed the revised registration. A copy of the registration is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Marcia Earl, at (800) 451-6027, press 0 and ask for Marcia Earl or extension 3-0863, or dial (317) 233-0863.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

IC/me

Attachment: Revised Registration
Revised Calculations

cc: File - Allen County
Allen County Health Department
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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REGISTRATION OFFICE OF AIR QUALITY

Exelis Incorporated
7310 Innovation Boulevard
Fort Wayne, Indiana 46818

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 003-25123-00185	
Originally signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: March 25, 2009

First Notice-only Change No. 003-28714-00185, issued on December 16, 2009
Second Notice-Only Change No. 003-29103-00185, issued April 1, 2010

Third Notice-Only Change No. 003-31123-00185	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 12, 2011

SECTION A

SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary communications equipment and meteorological instrument manufacturing plant.

Source Address:	7310 Innovation Blvd, Fort Wayne, Indiana 46818
General Source Phone Number:	(260) 451-5661
SIC Code:	3663
County Location:	Allen County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

- (a) Two (2) large routers, identified as Units 11 and 12, constructed in 1993, with a maximum capacity of 115 pieces per hour, each, using a baghouse for control, identified as S-15, and exhausting to stack S-15.
- (b) Three (3) small automated routers, identified as 3SMTRTER1, 3SMTRTER2, and 3SMTRTER3, constructed in 1993, with a maximum capacity of 160 pieces per hour, each, using a baghouse for control, identified as S-15, and exhausting to stack S-15.
- (c) One (1) small automated router, identified as 3SMTRTER4, approved for construction in 2009, with a maximum capacity of 160 pieces per hour, using a baghouse for control, identified as S-14, and exhausting indoors.
- (d) One (1) bar code laser etcher, identified as Etcher 1, constructed in 1993, with a maximum capacity of 493.2 parts per hour, using a dust collector for control, and exhausting indoors.
- (e) One (1) bar code laser etcher, identified as Etcher 2, approved for construction in 2009, with a maximum capacity of 493.2 parts per hour, using a dust collector for control, and exhausting indoors.
- (f) One (1) laser etcher, identified as 3ETCHER3, approved for construction in 2009, with a maximum capacity of 493 parts per hour, with emissions uncontrolled, exhausting indoors.
- (g) Three (3) natural gas-fired boilers, identified as Units 13, 14, and 15, constructed in 1993, rated at 2.5 MMBtu/hr, each, and exhausting to stacks S-16a, S-16b, and S-16c, respectively.
- (h) Six (6) cold cleaners performing organic solvent degreasing operations:
 - (1) One (1) Cobehn Spray Cleaner, identified as CC1, constructed in 1993, using 0.019 gallons of non halogenated organic solvent per hour, and exhausting indoors.

- (2) One (1) Cyber Clean 3000 Stencil Cleaner, identified as CC2, constructed in 1993, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting to stack S-57.
- (3) One (1) Cyber Clean 3000 Stencil Cleaner, identified as CC3, approved for construction in 2009, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting to stack S-58.
- (4) One (1) Smart Sonic Stencil Cleaner, identified as CC4, constructed in 1993, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting indoors.
- (5) One (1) Fisher Scientific Ultrasonic Table Top Cleaner, identified as CC5, constructed in 1993, using 0.001 gallons of non halogenated organic solvent per hour, and exhausting indoors.
- (6) One (1) Branson 3200 Ultrasonic Table Top Cleaner, identified as CC6, constructed in 1993, using 0.0019 gallons of non halogenated organic solvent per hour, and exhausting indoors.
- (i) One (1) Branson Ultrasonic Cleaner, identified as 3VAPOR 5, approved for construction in 2009, using 0.00615 gallons of non-halogenated organic solvent per hour, and exhausting indoors.
- (j) Two (2) electric Fusion UV Cure Ovens, identified as Fusion UV Cure Oven 1 and 2, constructed in 1993, with a maximum capacity 2,520 pieces per day, each, and exhausting to stacks S-1 and S-11
- (k) One (1) electric Fusion UV Cure Oven, identified as Fusion UV Cure Oven 3, approved for construction in 2009, with a maximum capacity 2,520 pieces per day, and exhausting to stack S-63.
- (l) One (1) paint mixing and touch up operation, identified as paint mixing and touch up operation 1, constructed in 1993, using less than 5 gallons of coatings per day, and exhausting indoors.
- (m) Seven (7) electric Heller I/R Ovens, identified as Unit 50 through Unit 56, constructed in 1993, with a maximum capacity 3,427.2 pieces per day, each, and exhausting to stacks S-50 through S-56.
- (n) One (1) electric Blue M Curing Oven, identified as Blue M Curing Oven 1, constructed in 1993, with a maximum capacity 345.6 pieces per day, and exhausting to stack S-60.
- (o) Three (3) electric Blue M Ovens, identified as Blue M Oven 18, 19, and 20, constructed in 1993, with a maximum capacity 1814.4 pieces per day, each, and exhausting indoors.
- (p) Two (2) ERSA selective solder machines, identified as ERSA 1 and 2, approved for construction in 2009, using 0.0009 pounds of flux per hour and 0.17 gallons of organic solvent per hour, and exhausting to stacks S-64 and S-65.
- (q) Two (2) soldering pots, identified as Soldering Pot 1 and 2, constructed in 1993, using a combination of 0.009 pounds of flux per hour, and exhausting indoors.
- (r) One (1) Ionic tester, identified as 3IONIC1, approved for construction in 2009, using 0.002 gallons of isopropyl alcohol per hour, exhausting indoors.
- (s) One (1) Aqua Therm Washer, identified as 3AQUA, approved for construction in 2010, using 0.011 gallons of non-halogenated organic solvent per hour, and exhausting indoors.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. 003-25123-00185 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this registration:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

SECTION D.1

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) Two (2) large routers, identified as Units 11 and 12, constructed in 1993, with a maximum capacity of 115 pieces per hour, each, using a baghouse for control, identified as S-15, and exhausting to stack S-15.
- (b) Three (3) small automated routers, identified as 3SMRTER1, 3SMRTER2, and 3SMRTER3, constructed in 1993, with a maximum capacity of 160 pieces per hour, each, using a baghouse for control, identified as S-15, and exhausting to stack S-15.
- (c) One (1) small automated router, identified as 3SMRTER4, approved for construction in 2009, with a maximum capacity of 160 pieces per hour, using a baghouse for control, identified as S-14, and exhausting indoors.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), the particulate emission rate from the two (2) large routers and the four (4) small automated routers shall not exceed 0.551 pounds per hour, each.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.1.2 Particulate Control

In order to comply with Condition D.1.1, the control equipment for particulate control shall be in operation and control emissions from the two (2) large routers and the four (4) small automated routers at all times when these units are in operation.

SECTION D.2

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (g) Three (3) natural gas-fired boilers, identified as Units 13, 14, and 15, constructed in 1993, rated at 2.5 MMBtu/hr, each, and exhausting to stacks S-16a, S-16b, and S-16c, respectively.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.2.1 Particulate [326 IAC 6-2-2]

Pursuant to 326 IAC 6-2-2 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the particulate emissions from the three (3) boilers, identified as Units 13, 14, and 15 shall not exceed 0.6 pounds of particulate matter per million British thermal units heat input, each.

SECTION D.3

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (h) Six (6) cold cleaners performing organic solvent degreasing operations:
 - (1) One (1) Cobehn Spray Cleaner, identified as CC1, constructed in 1993, using 0.019 gallons of non halogenated organic solvent per hour, and exhausting indoors.
 - (2) One (1) Cyber Clean 3000 Stencil Cleaner, identified as CC2, constructed in 1993, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting to stack S-57.
 - (3) One (1) Cyber Clean 3000 Stencil Cleaner, identified as CC3, approved for construction in 2009, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting to stack S-58.
 - (4) One (1) Smart Sonic Stencil Cleaner, identified as CC4, constructed in 1993, using 0.99 gallons of non halogenated organic solvent per hour, and exhausting indoors.
 - (5) One (1) Fisher Scientific Ultrasonic Table Top Cleaner, identified as CC5, constructed in 1993, using 0.001 gallons of non halogenated organic solvent per hour, and exhausting indoors.
 - (6) One (1) Branson 3200 Ultrasonic Table Top Cleaner, identified as CC6, constructed in 1993, using 0.0019 gallons of non halogenated organic solvent per hour, and exhausting indoors.
- (i) One (1) Branson Ultrasonic Cleaner, identified as 3VAPOR 5, approved for construction in 2009, using 0.00615 gallons of non-halogenated organic solvent per hour, and exhausting indoors.
- (s) One (1) Aqua Therm Washer, identified as 3AQUA, approved for construction in 2010, using 0.011 gallons of non-halogenated organic solvent per hour, and exhausting indoors.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;

- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]

Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreasing Operation), for open top vapor degreasing operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) Keep the cover closed at all times except when processing workloads through the degreaser;
- (c) Minimize solvent carry-out by:
 - (1) Racking parts to allow complete drainage;
 - (2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;
 - (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (4) Tipping out any pools of solvent on the cleaned parts before removal;
 - (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) Not occupy more than half of the degreaser's open top area with the workload;
- (f) Not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) Never spray above the vapor level;
- (h) Repair solvent leaks immediately, or shut down the degreaser;
- (i) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (j) Not use workplace fans near the degreaser opening;
- (k) Not allow visually detectable water in the solvent exiting the water separator; and
- (l) Provide a permanent, conspicuous label summarizing the operating requirements.

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-6]

Pursuant to 326 IAC 8-3-6 (Open Top Vapor Degreaser Operation and Control Requirements), for open top vapor degreasing operations with an air to solvent interface of ten and eight-tenths (10.8) square feet or greater, constructed after July 1, 1990:

- (a) The Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (2) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than four (4) inches.
 - (3) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powdered cover if the degreaser opening is greater than ten and eight-tenths (10.8) square feet;
 - (B) A refrigerated chiller;
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser;
 - (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifty (50) cubic feet per minute per square foot of air to vapor interface area and an average of less than twenty-five parts per million of solvent is exhausted over one (1) complete adsorption cycle; or
 - (E) Other systems of demonstrated equivalent or better control as those outlined in (A) through (D). Such systems shall be submitted to the U.S.EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-6(b) (Open Top Vapor Degreaser Operation and Control Requirements), the Permittee shall ensure that the following operating requirements are met:
 - (1) Keep the cover closed at all times except when processing workloads through the degreaser.
 - (2) Minimize solvent carryout emissions by:
 - (A) Racking articles to allow complete drainage;
 - (B) Moving articles in and out of the degreaser at less than eleven feet per minute;

- (C) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (D) Tipping out any pools of solvent on the cleaned articles before removal; and
 - (E) Allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood or rope.
 - (4) Prohibit occupation of more than one half (2) of the degreaser's open top area with the workload.
 - (5) Prohibit the loading of the degreaser to the point where the vapor level would drop more than four (4) inches when the workload is removed.
 - (6) Prohibit solvent spraying above the vapor level.
 - (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
 - (8) Store waste solvent only in covered containers and prohibit the disposal transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent (by weight) could evaporate.
 - (9) Prohibit the exhaust ventilation rate from exceeding sixty-five cubic feet per minute per square foot of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration (OSHA) requirements.
 - (10) Prohibit the use of workplace fans near the degreaser opening.
 - (11) Prohibit visually detectable water in the solvent exiting the water separator.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Exelis Incorporated
Address:	7310 Innovation Blvd
City:	Fort Wayne, Indiana 46818
Phone Number:	(260) 451-5661
Registration No.:	003-25123-00185

I hereby certify that Exelis Incorporated is:	<input type="checkbox"/> still in operation. <input type="checkbox"/> no longer in operation.
I hereby certify that Exelis Incorporated is:	<input type="checkbox"/> in compliance with the requirements of Registration No. 003-25123-00185. <input type="checkbox"/> not in compliance with the requirements of Registration No. 003-25123-00185.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Appendix A: Emission Summary

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Uncontrolled Emissions

Emission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	CO	CO _{2e}	NOx	TOTAL HAPs	WORST CASE SINGLE HAP
Large and Small Routers	7.55	7.55	7.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Bar Code Lasers Etchers	6.67E-03	6.67E-03	6.67E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Boilers	0.06	0.25	0.25	1.97E-02	0.18	2.76	3966	3.29	0.06	5.91E-02 Hexane
Cobehn Cleaner	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00 --
Two (2) Cyber Clean 300 Stencil Cleaners	0.00	0.00	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00 --
Smart Sonic Stencil Cleaner	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.00 --
Fisher Scientific	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00 --
Branson Cleaner	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00 --
Fusion UV Ovens	0.00	0.00	0.00	0.00	1.24E-02	0.00	0.00	0.00	0.00	0.00 --
Heller I/R Ovens	0.00	0.00	0.00	0.00	1.01E-04	0.00	0.00	0.00	0.00	0.00 --
Touch Up Paint Operations	0.00	0.00	0.00	0.00	2.52E-01	0.00	0.00	0.00	0.21	0.06 Chromium
Blue M Curing Oven	0.00	0.00	0.00	0.00	1.45E-05	0.00	0.00	0.00	0.00	0.00 --
3 Blue M Ovens	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00 --
ERSA Selective Solder Machines	0.00	0.00	0.00	0.00	4.82	0.00	0.00	0.00	0.00	0.00 --
Soldering Pots	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00 --
Therm Washer	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00 --
Miscellaneous Chemical Usage *	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00 --
Total	7.62	7.81	7.81	0.02	11.39	2.76	3965.99	3.29	0.27	0.06 Chromium

Controlled Emissions

Emission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	CO	CO _{2e}	NOx	TOTAL HAPs	WORST CASE SINGLE HAP
Large and Small Routers	0.31	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
BarCode Lasers Etchers	6.67E-03	6.67E-03	6.67E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Boilers	0.06	0.25	0.25	1.97E-02	0.18	2.76	3966	3.29	6.20E-02	5.91E-02 Hexane
Cobehn Cleaner	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00 --
Two (2) Cyber Clean 300 Stencil Cleaners	0.00	0.00	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00 --
Smart Sonic Stencil Cleaner	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.00 --
Fisher Scientific	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00 --
Branson Cleaner	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00 --
Fusion UV Ovens	0.00	0.00	0.00	0.00	1.24E-02	0.00	0.00	0.00	0.00	0.00 --
Heller I/R Ovens	0.00	0.00	0.00	0.00	1.01E-04	0.00	0.00	0.00	0.00	0.00 --
Touch Up Paint Operations	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.21	0.06 Chromium
Blue M Curing Oven	0.00	0.00	0.00	0.00	1.45E-05	0.00	0.00	0.00	0.00	0.00 --
3 Blue M Ovens	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00 --
ERSA Selective Solder Machines	0.00	0.00	0.00	0.00	4.82	0.00	0.00	0.00	0.00	0.00 --
Soldering Pots	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00 --
Therm Washer	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00 --
Miscellaneous Chemical Usage *	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	negl.	negl. --
Total	0.38	0.56	0.56	0.02	11.39	2.76	3965.99	3.29	0.27	0.06 Chromium

*Source uses minimal amounts of various solvents, cleaners, and adhesives that contain VOC. IDEM has conservatively estimated 0.72 tons of VOC are emitted from miscellaneous chemical usage per year. negl. = negligible

Appendix A: Emission Calculations
 PM/PM10/PM2.5 From Printed Circuit Board Routers

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Large and Small Routers

Emission Unit	Control Device ID	Control Efficiency (%)	Outlet Grain Loading (grain/dscf)	Air Flow Rate (acfm)	Uncontrolled PM Emissions (lbs/hr)*	Uncontrolled PM Emissions (tons/yr)*	Controlled PM Emissions (lbs/hr)*	Controlled PM Emissions (tons/yr)*
Large and Small Routers (existing)	S-15	94.00%	0.024	308	1.06	4.63	0.06	0.28
Small Router (new)	S-14	99.00%	0.0052	150	0.67	2.93	0.01	0.03
Total						7.55		0.31

Methodology

*PM10 and PM2.5 assumed to be equal to PM.

Uncontrolled PM (lb/hr) = Outlet Grain Loading (gr/dscf) * Air Flow Rate (acfm) * 60 (min/hr) * 1/7000 (lb/gr) * (1/(1-Control %))

Uncontrolled PM (tons/yr) = Uncontrolled PM Emissions (lbs/hr) * 8760 (hr/yr) * 1/2000 (ton/lbs)

Controlled PM (lb/hr) = Uncontrolled PM Emissions (lbs/hr) * (1- Control %)

Controlled PM (tons/yr) = Controlled PM Emissions (lbs/hr) * 8760 (hr/yr) * 1/2000 (ton/lbs)

Appendix A: Emission Calculations
 PM/PM10/PM2.5 From Bar Code Laser Etchers

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Emission Unit	Maximum (part/hr)	PM Emission Factor (lb/part)*	Potential PM Emissions (lb/hr)**	Potential PM Emissions (ton/yr)**
Bar Code Laser Etcher	493.2	1.54E-06	7.61E-04	3.33E-03
Bar Code Laser Etcher	493.2	1.54E-06	7.61E-04	3.33E-03
Total				6.667E-03

Methodology

*Source estimates 0.0007 grams of particulate emitted per part

**PM10 and PM2.5 assumed to be equal to PM.

Etching Time required for each part = 7.3 (seconds/part)

Maximum number of parts per minute = 8.22

PM Emissions (lb/hr) = Max. part/hr * PM EF (lb/part)

PM Emissions (ton/yr) = Max. part/hr * PM EF (lb/part) * 1/2000 (ton/lb) * 1/8760 (yr/hr)

Appendix A: Emission Calculations
Natural Gas Combustion In Boilers

Company Name: Exelis Incorporated
Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
Registration NOC No.: 003-31123-00185
Reviewer: Marcia Earl
Date: November 2011

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

7.5

65.7

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NO _x	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.06	0.25	0.25	1.97E-02	3.29	0.18	2.76

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

HAPs - Organics

Emission Factor in lb/MMCF	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.899E-05	3.942E-05	2.464E-03	5.913E-02	1.117E-04

HAPs - Metals

Emission Factor in lb/MMCF	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.643E-05	3.614E-05	4.599E-05	1.248E-05	6.899E-05

TOTAL HAPs 6.204E-02

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions**

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Heat Input Capacity
 MMBtu/hr
7.50

HHV
 mmBtu/mmscf
1000

Potential Throughput
 MMCF/yr
65.70

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	3942.00	0.08	0.07
Summed Potential Emissions in tons/yr	3942		
CO2e Total in tons/yr	3966		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-030006-03 and 1-03-006-03
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Company Name: Exelis Incorporated
Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
Registration NOC No.: 003-31123-00185
Reviewer: Marcia Earl
Date: November 2011

One (1) Branson Cleaner

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
IONOX I3950	10.84	100.00%	0.0%	100.00%	0.0%	0.014	10.84	10.84	0.15	3.60	0.66

Two (2) Cyber Clean 3000 Stencil Cleaners (0.989 gal/hr, each)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
LONOX L5314	8.63	2.72%	0.0%	2.72%	0.0%	1.978	0.23	0.23	0.46	11.13	2.03

One (1) Smart Sonic Stencil Cleaner (0.989 gal/hr)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
LONOX L5314	8.63	2.72%	0.0%	2.72%	0.0%	0.989	0.23	0.23	0.23	5.57	1.02

One (1) Branson 3200 - Table Top Cleaner

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Isopropyl Alcohol SG2 (Microcircuits)	6.55	100.00%	0.0%	100.00%	0.0%	0.001	6.55	6.55	0.01	0.20	0.04
Ethyl Alcohol (Alpha)	6.58	100.00%	0.0%	100.00%	0.0%	0.001	6.58	6.58	0.00	0.10	0.02
Total										0.05	

One (1) Fisher Scientific - Table Top Cleaner

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Ethyl Alcohol	6.58	100.00%	0.0%	100.00%	0.0%	0.001	6.58	6.58	0.00	0.10	0.02

One (1) Cobehn Cleaner

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Spray Clean Solvent	12.34	100.00%	0.0%	100.00%	0.0%	0.019	12.34	12.34	0.24	5.69	1.04

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations

VOC

From Fusion and Heller Ovens

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Three (3) Fusion UV Ovens

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
5960 Fastgasket Cured-In-Place Gasket Flange Sealant	9.17	0.56%	0.0%	0.56%	0.0%	0.055	0.052	0.052	0.00	0.07	1.24E-02

Seven (7) Heller Infrared Ovens

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Epibound 7275	10.68	0.94%	0.0%	0.94%	0.0%	2.31E-04	0.10	0.10	2.31E-05	5.56E-04	1.01E-04

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

VOC

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency
MIL-DTL-53039B, Type 1 Coating, Aliphatic Polyurethane, Single Component CARC, Green 383, 34094	11.05	31.76%	0%	31.76%	0.0%	0.0087	3.51	3.51	0.03	0.73	0.13	0.00	100.0%
Flat Black A/D Enamel (N-6018)	9.7	45.69%	0%	46%	0.0%	0.0005	4.42	4.42	2.28E-03	0.055	0.01	0.00	100.0%
Methyl Amyl Ketone	6.76	100.00%	0.0%	100.00%	0.0%	0.003	6.76	6.76	0.02	0.50	0.09	0.00	100.0%
Polane * S Plus Polyurethane Enamel, Special ITT Tan	11.96	26.42%	0.0%	26.42%	0.0%	0.001	3.16	3.16	3.65E-03	0.09	0.02	0.00	100.0%
Polane * HS Plus Exterior Catalyst	9.34	9.96%	0.0%	9.96%	0.0%	1.45E-04	0.93	0.93	1.34E-04	3.23E-03	5.89E-04	0.00	100.0%
0.25											0.00		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (gal/hour) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

HAPs

Material	Density (lb/gal)	Gallons of Material (gal/hr)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Weight % Napthalene	Weight % Methyl Isobutyl Ketone	Weight % Chromium	Weight % Cobalt	Weight % Zinc	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Napthalene Emissions (ton/yr)	MIBK Emissions (ton/yr)	Chromium Emissions (ton/yr)	Cobalt Emissions (ton/yr)	Zinc Emissions (ton/yr)
MIL-DTL-53039B, Type 1 Coating, Aliphatic Polyurethane, Single Component CARC, Green 383, 34094	11.05	0.0087	11.0%	5.0%	2.0%	0.4%	5.0%	14.0%	6.0%	6.0%	0.05	0.02	0.01	1.68E-03	0.02	0.06	0.03	0.03
Total											0.05	0.02	0.01	1.68E-03	0.02	0.06	0.03	0.03

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Total HAPs (tons/yr) = 0.21

Appendix A: Emissions Calculations
 VOC
 From Blue M Ovens

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

Blue M Curing Oven

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Epibound 7275	10.68	0.94%	0.0%	0.94%	0.0%	3.31E-05	0.10	0.10	3.31E-06	7.94E-05	1.45E-05

Three (3) Blue M Ovens

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Epoxy Adhesive	10.51	2.54%	0.0%	2.54%	0.0%	1.88E-01	0.27	0.27	5.01E-02	1.20E+00	2.19E-01
Epoxy Adhesive	11.09	0.06%	0.0%	0.06%	0.0%	1.22E-01	0.01	0.01	8.17E-04	1.96E-02	3.58E-03

0.22

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emission Calculations
VOC

From ERSA Selective Solder Machines and Soldering Pots

Company Name: Exelis Incorporated
Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
Registration NOC No.: 003-31123-00185
Reviewer: Marcia Earl
Date: November 2011

Two (2) ERSA Selective Solder Machines

VOC Emissions from Solvent Use

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Isopropyl Alcohol SG2	6.55	100.00%	0%	100.00%	0.0%	0.1679	6.55	6.55	1.10	26.40	4.82

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Two (2) ERSA Selective Solder Machines

VOC Emissions from Soldering Flux

Material	Usage (lb/hr)	Weight % VOC	Potential VOC (tons/yr)
Rework Flux KRF 233	0.00093	40.00%	0.002

Two (2) Soldering Pots

VOC Emissions from Soldering Flux

Material	Usage (lb/hr)	Weight % VOC	Potential VOC (tons/yr)
959 Flux	0.009	100.00%	0.04

METHODOLOGY

Potential VOC Tons per Year = Usage (lb/hr) * Weight % VOC * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emission Calculations
 VOC
 Aqua Therm Washer

Company Name: Exelis Incorporated
 Address City IN Zip: 7310 Innovation Blvd, Fort Wayne, Indiana 46818
 Registration NOC No.: 003-31123-00185
 Reviewer: Marcia Earl
 Date: November 2011

VOC Emissions from Solvent Use

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
2-(2-aminoethoxy)ethanol	7.87	100.00%	0%	100.00%	0.0%	0.0110	7.87	7.87	0.09	2.08	0.38

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Bradyn Sterling
Exelis Incorporated
7310 Innovation Blvd
Fort Wayne, IN 46818

DATE: December 12, 2011

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Registration
003-31123-00185

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 12/12/2011 Exelis Incorporated 003-31123-00185 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Bradyn Sterling Exelis Incorporated 7310 Innovation Blvd Fort Wayne IN 46818 (Source CAATS)										
2		Gary Quick Director of Operations Exelis Incorporated 3700 E Pontiac St Fort Wayne 46803 (RO CAATS)										
3		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)										
4		Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 (Affected Party)										
5		Mr. Victor Locke WPTA-TV P.O.Box 2121 Fort Wayne IN 46801 (Affected Party)										
6		Fort Wayne City Council and Mayors Office One Main Street Fort Wayne IN 46802 (Local Official)										
7		Mr. John E. Hampton Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 (Affected Party)										
8		Allen Co. Board of Commissioners One Main St. Fort Wayne IN 46802 (Local Official)										
9		Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 (Health Department)										
10		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 (Affected Party)										
11												
12												
13												
14												
15												

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