INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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https://permits.air.idem.in.gov/16288f.pdf

Mr. James Hunsicker
Naval Surface Warfare Center - Crane
300 Highway 361
Crane, Indiana 47522

Re: 101-16288-00005
Second Minor Source Modification to:
Part 70 permit No.:T101-7341-00005

Dear Mr. Hunsicker:

Naval Surface Warfare Center - Crane was issued Part 70 operating permit T101-7341-00005 on May 15, 2001 for a military base. An application to modify the source was received on October 31, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

The source may begin construction when the source modification has been issued. The source must comply with the requirements of 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12 before operation of any of the proposed emission units can begin.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Kristin Clapp, ERG,1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (703) 633-1674 to speak directly to Ms. Clapp. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/KC

cc: File - Martin County
Martin County Health Department
Air Compliance Section Inspector - Gene Kelso
Compliance Data Section - Karen Nowak
Administrative and Development -Sara Cloe
Technical Support and Modeling - Michele Boner

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Naval Surface Warfare Center, Crane Division
300 Highway 361
Crane, Indiana 47522

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T101-7341-00005	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: May 15, 2001 Expiration Date: May 14, 2006

First Significant Source Modification: 101-14493-00005, Issued January 4, 2002
First Significant Permit Modification: 101-14789-00005, Issued January 22, 2002
Second Significant Source Modification: 101-14772-00005, Issued June 7, 2002
Second Significant Permit Modification: 101-14889-00005, Issued June 7, 2002
First Minor Source Modification: 101-15490-00005, Issued June 26, 2002
Third Significant Permit Modification: 101-15983-00005, Issued September 11, 2002
First Minor Permit Modification: 101-15582-00005, issued October 4, 2002

Second Minor Source Modification: 101-16288-00005	Affected Pages: 11, 16, 17, 18, 19, 20
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information in Sections A.1 through A.4 and in all Facility Description boxes in the D Sections is descriptive information and does not constitute enforceable conditions; however, the Permittee should be aware that physical changes or changes in the method of operation that may render this descriptive information obsolete or inaccurate may also trigger requirements for permits or permit modifications under 326 IAC 2.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a military base where ammunition, rockets and other military ordnance are manufactured, stored and disposed.

Responsible Official: Captain T. Scott Wetter
Source Address: 300 Highway 361, Crane, Indiana 47522-5009
Mailing Address: Code 09510 Building 3260, 300 Highway 361, Crane, Indiana 47522
Contact Person: Mr. Shashi Kumar
Phone Number: (812) 854-6156
SIC Code: 9711, 3483
County Location: Martin
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

(a) Eighteen (18) Abrasive Blasting Units:

(1) CRN-0104-03-23-HH16, located in Building 104, constructed in 1983, with a maximum capacity of 1000 lbs/yr (0.5 tons per year (TPY)) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0104-03-23-HH16-S.

(2) CRN-0106-02-23-HH13, located in Building 106, constructed in 1988, with a maximum capacity of 3000 lbs/yr (1.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0106-02-23-HH13-S1, S2.

(3) CRN-0107-05-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY)abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-05-23-HH13-S.

(4) CRN-0107-06-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-06-23-HH13-S.

(5) CRN-0107-07-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to

control particulate matter emissions, and exhausting to stack CRN-0107-07-23-HH13-S.

(6) CRN-2171-01-17-DD22, located in Building 2171, constructed in 1970, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-2171-01-17-DD22-S.

(7) CRN-2521-07-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-07-02-J17-S.

(8) CRN-2521-08-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emission, and exhausting to stack CRN-2521-08-02-J17-S.

(9) CRN-2521-09-2-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-09-2-J17-S.

(10) CRN-2930-06-17-V25, located in Building 2930, constructed in 1993, with a maximum capacity of 1000 lbs/yr (0.5 TPY)abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(11) CRN-2930-07-17-V25, located in Building 2930, constructed in 1993,with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(12) CRN-2930-08-17-V25, located in Building 2930, constructed in 1993, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(13) CRN-3234-14-17-U26, located in Building 3234, constructed in 1993, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3234-14-17-U26-S.

(14) CRN-0107-08-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.4 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-08-23-HH13-S.

(15) Pangborn Rotoblaster CRN-0155-06-17-BB25, located in Building 155, constructed in 1972, with a maximum capacity of 3000 lbs/yr (1.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0155-06-17-BB25-S.

(16) CRN-0227-03-23-HH12, located in Building 227, constructed before 1991, with a maximum capacity of 3000 lbs/yr (1.5 TPY) abrasive used, using baghouse to control particulate matter emissions, and exhausting to stack CRN-0227-03-23-HH12-S.

(17) CRN-3168-03-17-V28, located in Building 3168, constructed in 1988, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3168-03-17-V28-S.

(18) CRN-0107-09-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.35 TPY) abrasive used, using a baghouse to control emissions, and exhausting to stack CRN-0107-08-23-HH13.

(b) Thirty-three (33) boilers:

(1) Cleaver Brooks natural gas-fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-02-17-CC23, located in Building 150, constructed in 1972, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0150-02-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(11) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(13) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(14) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2087-01-10-S30, located in Building 2087, constructed in 1978, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-2087-01-10-S30-S.

(15) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 mmBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(17) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(18) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(19) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.234 mmBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(20) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.234 mmBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(21) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(22) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 mmBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(28) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(29) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(30) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(31) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(32) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.38 mmBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(33) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 mmBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(c) Three (3) Carpentry Shops, identified as:

(1) CRN-0056-04-10-T21, located in Building 56, using a wood usage of 74,880 board feet per year, with a process weight rate of 0.14 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0056-04-10-T21-S.

(2) CRN-0224-02-23-HH12, located in Building 224, using a wood usage of 1,000,000 board feet per year, with a process weight rate of 0.69 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0224-02-23-HH12-S.

(3) CRN-2720-04-23-GG12, located in Building 2720, using a wood usage of 14,000 board feet per year, with a process weight rate of 0.25 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-2720-04-23-GG12-S.

(d) Thirty-two (32) paint booths:

(1) CRN-0102-01-23-FF14, located in Building 102, constructed in 1993, using a dry filter to control particulate matter emissions.

(2) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(3) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(4) CRN-0106-01-23-HH13, located in Building 106, constructed in 1960, using a water wall to control particulate matter emissions.

(5) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(8) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980, using a wet wall to control particulate matter emissions.

(9) CRN-0136-01-17-Z26, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(10) CRN-0155-01-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(11) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(12) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(13) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(14) CRN-0169-01-24-EE22, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(15) CRN-2520-01-17-Y26, located in Building 2520, constructed in 1968, using a water wall to control particulate matter emissions.

(16) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(17) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(18) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(19) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(20) CRN-0101-01-23-FF13, located in Building 101, constructed in 1945, using a dry filter to control particulate matter emissions.

(21) CRN-0109-01-23-GG14, located in Building 109, constructed in 1981, using a dry filter to control particulate matter emissions.

(22) CRN-0174-01-24-FF21, located in Building 174, constructed in 1986, using a dry filter to control particulate matter emissions.

(23) CRN-0198-01-23-II15, located in Building 198, constructed in 1980, using a dry filter to control particulate matter emissions.

(24) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(25) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(26) CRN-2074-03-16-DD13, located in Building 2074, constructed in 1987, using a dry filter to control particulate matter emissions.

(27) CRN-2517-05-10-T21, located in Building 2517, constructed in 1969, using a dry filter to control particulate matter emissions.

(28) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(29) CRN-2713-01-17-X23, located in Building 2713, constructed in 1979, using a dry filter to control particulate matter emissions.

(30) CRN-2805-01-23-GG19, located in Building 2805, constructed in 1969, using a dry filter to control particulate matter emissions.

(31) CRN-2805-02-23-GG19, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(32) CRN-3168-02-17-V28, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(e) One (1) Asphaltic Coating Operation, identified as CRN-0155-05-17-BB25, located in Building 155, with a maximum usage of 3.64 tons per hour, using an electrostatic precipitator for PM control, and exhausting to stack CRN-0155-05-17-BB25-S.

(f) Open Burning/Open Detonation:

(1) Open Burning of Ordnance at the Ammunition Burning Ground, identified as CRN-ABG-01-19-DD43, with a maximum usage of 2.3 mmlb/yr (1150 tons/yr) of Dunnage; 0.64 mmlb/yr (320 tons/yr) of Explosive; 4.7 mmlb/yr (2350 tons/yr) of Propellant.

(2) Open Detonation of Ordnance at the Demolition Range, identified as CRN-DR-01-24-KK21, with a maximum usage of 0.13 mmlb/yr (65 tons/yr) of Dunnage; 1.6 mmlb/yr (800 tons/yr) of Explosive; 0.52 mmlb/yr (260 tons/yr) of Propellant.

(3) Open Burning of Ordnance at the Old Rifle Range, identified as CRN-ORR-01-24-JJ24, with a maximum usage of 0.15 mmlb/yr (75 tons/yr) of Dunnage; 0.032 mmlb/yr (16 tons/yr) of Explosive; 0.012 mmlb/yr (6 tons/yr) of Propellant.

(4) Fast and Slow Cookoff at the Ordnance Test Area, identified as CRN-OTA-01-29-WW18, with a maximum usage of 10,000 units of various ordnance per year.

(g) One (1) Chromic Acid Anodizing Tank, identified as CRN-3234-13-17-U26, located in Building 3234, equipped with a packed-bed scrubber, and exhausting to stack CRN-3234-13-17-U26-S.

(h) One (1) Stripping Tank (open-top vapor degreaser), constructed in 1992, identified as CRN-3234-12-17-U26, located in Building 3234, and exhausting to stack CRN-3234-12-17-U26-S.

(i) One (1) Vapor Degreaser, identified as CRN-0106-03-23-HH13, located in Building 106, with a maximum Natural Orange usage of 0.5 gallons per day, equipped with cooling/condensing coils and a cover to control VOC emissions, and exhausting to stack CRN-0106-03-23-HH13-S.

(j) Mixing and pouring equipment in Building 200 used as a plastic bonded explosive line, constructed in 1984, consisting of mixing and pouring operations, using a carbon adsorption system with a wet scrubber to control particulate matter emissions.

(k) Explosive Bomb Loading Operation, constructed in 1987, consisting of:

(1) screening and weighing aluminum powder in Building 2714, using a baghouse for particulate control; and

(2) screening and weighing TNT in Building 153, using a wet scrubber for particulate control; and

(3) melting and mixing aluminum powder and TNT in Building 152, using a wet scrubber for particulate control.

(l) One natural gas-fired rotary kiln furnace in Building 69, used for white phosphorous conversion to phosphoric acid, constructed in 1983 and using a variable throat venturi scrubber to control particulate matter emissions.

(m) Service Station (Gasoline/Diesel Dispensing), identified as CRN-3280-04-17-X23, located in Building 3280, with a maximum usage of 350,000 gallons of unleaded gasoline per year, and 350,000 gallons of diesel per year.

(1) Two (2) Above ground vertical fixed-roof cone tanks, storing unleaded gasoline, constructed in 1995, identified as:

(A) CRN-3280-01-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency;

(B) CRN-3280-02-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency.

(n) Testing of Fuses, Boosters, and other Explosive Devices

(1) One (1) containment chamber in Building 2167, constructed in 1986, used to test burn pyrotechnic items.

(2) One (1) test cell in Building 3235, constructed in 1991, used to test lithium batteries, using a vertical packed-bed tower to control particulate matter emissions.

(3) One (1) containment chamber in Building 142, constructed in 1995, used to test detonation of fuses, boosters and other explosive devices, using a baghouse to control particulate matter emissions.

(o) Eighteen (18) autoclaves and one (1) belt flaker located in in Building 160, used for the demilitarization of 750 pound bombs, with a combined maximum capacity of 2,000 lbs/hr, using six (6) wet scrubbers to control particulate matter emissions.

(p) One (1) C-4 extruder process line, located in Building 2172, with a maximum manufacturing capacity of forty (40) 1.2 pound C-4 blocks per minute.

(q) One (1) contained detonation chamber, identified as P01, located in Building 3339, with a maximum capacity of 7500 pounds per hour gross weight of munitions, 750 pounds per hour net explosive weight (NEW), equipped with one (1) baghouse for particulate control, and exhausting to stack S01.

(r) One (1) mobile plasma treatment system (MPTS), identified as P02, located near Building 69, with a maximum capacity of 3600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

(s) One (1) diesel-fueled 4160-volt, 1000 kW generator which powers the MPTS exhausting at stack S03.

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

(a) This stationary source also includes the following insignificant activities:

(1) Natural gas-fired combustion sources with heat input less than ten million (10,000,000) Btu per hour, identified as:

(A) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) boiler in each of the following buildings: 1, 2, 4, 12, 14, 17, 18, 38, 45, 181, 224, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2088, 2167, 2506, 2516, 2682, 2693, 2701, 2720, 2721, 2748, 2749, 2889, 2931, 2964, 2987, 2993, 3006

(ii) boilers in each of the following buildings: 7, 2521

(B) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 5, 8, 10, 34, 36, 37, 40, 47, 66, 77, 105, 128, 363, 365, 366, 966, 1141, 1149, 2036, 2041, 2045, 2694, 2807, 2921, 3109, 3149, 3168, 3173, 3188, 3234, 3235, 3239, 3243, 3250

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906

(iii) four boilers in each of the following buildings: 3241, 3251

(2) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input less than six million (6,000,000) Btu per hour.

(3) Fuel oil-fired combustion sources with heat input less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(A) 1.63 mmBtu fuel oil-fired boiler, constructed in July 1983, located in Building 74.

(B) 0.275 mmBtu/hr fuel oil-fired boiler, constructed in September 1990, located in Building 2918.

(C) Two (2) 1.3 mmBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180.

(4) Equipment powered by internal combustion engines of less than 500,000 Btu/hour capacity, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

(5) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage tank of less than 10,500 gallon capacity.

(6) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank of less than 10,500 gallon capacity, and dispensing less than 230,000 gallons per month.

(7) Storage tanks less than one thousand (1,000) gallons in capacity with annual throughputs less than twelve thousand (12,000) gallons.

(8) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(9) Machining where an aqueous cutting coolant continuously floods the machine interface.

(10) Solvent recycling systems with less than 100 gallon batch capacity.

(11) Activities associated with the treatment of wastewater streams with an oil and grease content less than 1% by volume.

(12) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on site sewage treatment facility.

(13) Natural draft cooling towers circulating less than or equal to 340,000 gallons per day.

(14) Quenching operations used with heat treating processes.

(15) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(16) Paved and unpaved roads and parking lots with public access.

(17) Asbestos abatement projects regulated by 326 IAC 14-10.

(18) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(19) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.

(20) On-site fire and emergency response training approved by the department.

(21) Gasoline generators not exceeding 110 hp.

(22) Diesel generators not exceeding 1800 hp.

(23) Natural gas turbines not exceeding 16,000 hp.

(24) Stationary fire pumps.

(25) Filter or coalescer media changeout.

(26) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(27) Activities with emissions equal to or less than thresholds:

Lead(Pb=0.6 ton/year or 3.29 lbs/day
Carbon Monoxide(CO)=25 lbs/day
Sulfur Dioxide(SO2)=5 lbs/hour or 25 lbs/day
Particulate matter(PM)=5 lbs/hour or 25 lbs/day
Nitrogen Oxides (NOx)=5 lbs/hour or 25 lbs/day
Volatile Organic Compounds (VOC)=3 lbs/hour or 15 lbs/day

(1) Alphos tank, located in Building 2521.
(2) Brown oxide line, located in Building 38
(3) Bubble tester. Located in Building 2931
(4) Coating, phosphorous, located in Building 1884
(5) Curing room, located in Building 3148
(6) Four (4) Detonations Cells, located in Building 142
(7) Electrical discharge, located in Building 198
(8) Environmental chamber, located in Building 2167
(9) Explosives chamber, located in Building 142
(10) Explosives removal (Steam-out and Autoclave), located in Building 160
(11) Explosives mixing, located in Building 200
(12) Explosives molding, located in Building 126
(13) Heating oil bath, located in Building 39
(14) Two (2) hood, fumes, located in 2940
(15) Hood, vent, located in Building 38
(16) Hood, vent, located in Building 174
(17) Hood, vent, located in Building 226
(18) One (1) incinerator used for the destruction of classified materials, located in Building 45
(19) Infrared dry, located in Building 2036
(20) Three (3) injection molders, located in Building 198
(21) IR Heater, located in Building 38
(22) Mold release unit, located in 226
(23) Oven, located in Building 2940
(24) Curing oven, located in Building 226
(25) Three (3) drying ovens, located in Building 3234
(26) Laboratory oven, located in Building 109
(27) Paint booth, located in Building 2044
(28) Fugitive emissions from painting
(29) Passivation process
(30) PDL Foam, located in Building 2698
(31) Plating lines A, B, and C, located in Building 3234
(32) Quench tank, located in Building 125

(33) Rust inhibitor, located in Building 1884
(34) Solvent hand wiping, located in Building 155
(35) Solvent System, located in Building 226
(36) Miscellaneous solvent usage in Building 2728
(37) Nineteen (19) above ground storage tanks
(38) Seventy (70) underground storage tanks
(39) One (1) fuel storage tank, located at Building 2760
(40) Paint stripper, resistant, located in Building 38
(41) Tank, brighteners, located at Building 1884
(42) Vapor carbon fluid, located in Building 125
(43) Washer, roller, located in Building 18
(44) Washout unit, located in Building 18
(45) Six (6) Underground Storage Tanks, identified as:
  (1) CRN-0003-02-17-U21
  (2) CRN-2737-06-12-M41
  (3) CRN-2737-07-12-M41
  (4) CRN-2984-02-17-W22
  (5) CRN-2984-03-17-W22
  (6) CRN-3149-02-16-DD12
(46) Seventeen (17) Air Compressors:

  (1) Worthington, located in Building 1820, with a maximum capacity of 365 acfm;
  (2) Worthington, located in Building 1820, with a maximum capacity of 365 acfm;
  (3) Davey, located in the Car Shop, with a maximum capacity of 365 acfm;
  (4) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
  (5) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
  (6) Ingersoll, located in Building 1820, with a maximum capacity of 600 acfm;
  (7) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
  (8) Ingersoll, located in Building 1820, with a maximum capacity of 250 acfm;
  (9) Davey, located in Building 1820, with a maximum capacity of 125 acfm;
  (10) Sullair, located in Building 160, with a maximum capacity of 600 acfm;
  (11) Sullair, located in Building 198, with a maximum capacity of 600acfm;
  (12) Sullair, located in Building 105, with a maximum capacity of 750 acfm;
  (13) Davey, located in Building 2391, with a maximum capacity of 125 acfm;
  (14) Davey, located in Building 2394, with a maximum capacity of 125 acfm;
  (15) Ingersoll, located at Sullivan Lake, with a maximum capacity of 375 acfm;
  (16) Ingersoll, located in Building 224, with a maximum capacity of 750 acfm; and

(17) Ingersoll, located in Building 200, with a maximum capacity of 750 acfm.

(47) One (1) Krypton Leak Test Unit, constructed in 1990, identified as CRN-2931-05-17-V25, with a maximum capacity of 1.0 ci/year, and exhausting to stack CRN-2931-05-17-V25.

(48) One (1) fuel cell power plant utilizing a fuel processor to extract hydrogen from natural gas to produce a maximum of 212 kW of net, continuous 480 volt, 3-phrase, ac electric power from natural gas.

(49) One (1) Dispo Spray Booth, Model L130, with a maximum capacity of nine (9) twelve (12) ounce paint cans per month, with no overspray and used for repairing small microwave warfare components consisting of aluminum and glass.

(50) one (1) closed loop conversion process, used to convert ammonium picrate to picric acid with a maximum production capacity of 7 tons of picric acid per day, and exhausting to stacks S2 and V1.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.23 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

(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 2-7-5(1)]

D.23.1 Volatile Organic Compounds [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

(a) Emissions of VOCs from the flare manufacturing process located in Buildings 2504 and 145 shall be limited to less than 25 tons per consecutive twelve (12) month period with compliance determined at the end of each month. Monthly VOC emissions shall be calculated using the following equation:

VOC emissions (tons/month) = VOC used (tons/month) + acetone used (tons/month) - waste solvent generated (tons/month)

Compliance with this limit makes 326 IAC 8-1-6 (New Facilities) not applicable. Compliance with this limit also makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

(b) The VOC emissions from the flare manufacturing process in Building 198 shall be less than thirteen and six-tenths (13.6) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly VOC emissions shall be calculated using the following equation:

VOC Emissions (ton/month) = VOC Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

This limit is structured such that when including the VOC emissions the flare manufacturing process in Buildings 2504 and 145, the MPTS, and the CDC, all new units constructed in 2002, the total VOC emissions from the modifications are less than forty (40) tons per year. Compliance with this limit renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 5.21 not applicable to this modification. Compliance with this limit also renders the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

D.23.2 Hazardous Air Pollutants [326 IAC 2-4.1][40 CFR 63]

(a) Emissions of any individual HAP from the flare manufacturing process in Buildings 2504 and 145 shall be limited to less than 10 tons per consecutive twelve (12) month period with compliance determined at the end of each month. Emissions of any combination HAPs from the flare manufacturing process in Buildings 2504 and 145 shall be limited to less than 25 tons per consecutive twelve (12) month period with compliance determined at the end of each month. Monthly HAP emissions shall be calculated using the following equation:

hexane emissions (tons/month) = HAP used (tons/month) + acetone used (tons/month) - waste solvent generated (tons/month)

Compliance with this limit makes 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable.

(b) The emissions of a single HAP from the flare manufacturing process in Building 198 shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The emissions of any combination of HAPs from the flare manufacturing process in Building 198 shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly HAP emissions shall be calculated using the following equation:

HAP Emissions (ton/month) = HAP Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

Compliance with these limits renders the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable to this modification.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.23.3 Record Keeping Requirements

(a) To document compliance with Conditions D.23.1 and D.23.2 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC and HAP emission limits established in Conditions D.23.1 and D.23.2.

(1) The amount of VOC, HAP, and acetone used by each flare manufacturing process. Records shall include purchase orders and invoices necessary to verify the amount used.

(2) A log of the dates of VOC, HAP, and acetone usage by each flare manufacturing process;

(3) The amount of waste solvent generated by each manufacturing process. Records shall include hazardous waste manifests necessary to verify the amount generated.

(4) A log of the dates of hazardous waste generation.

(5) The weight of HAPs and VOCs emitted for each manufacturing process for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.23.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.23.1 and D.23.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name:	Naval Surface Warfare Center, Crane Division
Source Address:	300 Highway 361, Crane, Indiana 47522
Mailing Address:	Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No:	101-15490-00005
Facility:	Flare Manufacturing Process in Buildings 2405 and 145
Parameter:	Tons of VOC
Limit:	25 tons VOC emitted per consecutive (12) month period with compliance determined at the end of each month
Equation:	VOC emissions (tons/month) = VOC usage (tons/month) + acetone usage (tons/month) - waste solvent generated (tons/month)

YEAR:_____

Month	This month	Previous 11 months	12 months total
	VOC	VOC	VOC
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name:	Naval Surface Warfare Center, Crane Division
Source Address:	300 Highway 361, Crane, Indiana 47522
Mailing Address:	Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No:	101-15490-00005
Facility:	Flare Manufacturing Process in Building 198
Parameter:	Tons of VOC
Limit:	13.6 tons VOC emitted per twelve (12) consecutive month period with compliance determined at the end of each month
Equation:	VOC Emissions (tons/month) = VOC Usage (tons/month) + Acetone Usage (tons/month) - Waste Solvent Generated (tons/month)

YEAR:_____

Month	This month	Previous 11 months	12 months total
	VOC	VOC	VOC
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name:	Naval Surface Warfare Center, Crane Division
Source Address:	300 Highway 361, Crane, Indiana 47522
Mailing Address:	Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No:	101-15490-00005
Facility:	Flare Manufacturing Process in Building 198
Parameter:	Tons of HAP
Limit:	10 tons of any single HAP or 25 tons of any combination of HAPs emitted per twelve (12) consecutive month period with compliance determined at the end of each month
Equation:	HAP Emissions (tons/month) = HAP Usage (tons/month) + Acetone Usage (tons/month) - Waste Solvent Generated (tons/month)

YEAR: _____

Month	This month	Previous 11 months	12 months total
	HAP	HAP	HAP
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification and a Part 70 Minor Permit Modification

Source Background and Description

Source Name:	Naval Surface Warfare Center - Crane Division
Source Location:	300 Highway 36, Crane, Indiana 47522
County:	Martin
SIC Code:	9711, 3483
Operation Permit No.:	T101-7341-00005
Operation Permit Issuance Date:	May 15, 2001
Minor Source Modification No.:	MSM101-16288-00005
Minor Permit Modification No.:	MPM101-16761-00005
Permit Reviewer:	ERG/KC

The Office of Air Quality (OAQ) has reviewed a modification application from Naval Surface Warfare Center - Crane Division relating to the construction and operation of the following emission units and pollution control devices:

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

History

On May 15, 2001, Naval Surface Warfare Center - Crane Division was issued a Part 70 permit, T101-7341-00005. On October 31, 2002, IDEM, OAQ received an application to construct and operate a flare manufacturing process in Building 198.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Weighing Bay 123 (198-05)	26	4	Unknown	Unknown
2	Weighing Bay 123 (198-04)	26	4	Unknown	Unknown
3	Weighing Bay 122 (198-01)	26	4	Unknown	Unknown
4	Weighing Bay 122 (198-02)	26	4	Unknown	Unknown
5	Drying Oven A	15	0.33	750	Unknown

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
6	Drying Oven B	15	0.33	750	Unknown
7	Drying Oven C	15	0.33	750	Unknown
8	Drying Oven D	15	0.33	750	Unknown
9	Mixing, Bay 126, Cell 106	25	1	Unknown	Unknown
10	Mixing, Bay 122, Cell 122	25	1	Unknown	Unknown
11	Air Drying Exhaust, Bay 123, Cell 105	25	2	Unknown	Unknown

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 31, 2002.

Emission Calculations

See page 1 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls and waste disposal. Control equipment and solvent recovery is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0
PM-10	0
SO_2	0
VOC	60.74
CO	0
NO_x	0

HAP's	Potential To Emit (tons/year)
Hexane	60.74
TOTAL	60.74

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(5)(A) because the potential to emit a HAP solvent is limited to less than ten (10) tons per year. Based on pilot-scale testing, this

process's potential to emit is less than ten (10) tons per year if solvent recovery and disposal is operating correctly. Record keeping is required to ensure that this limit is not exceeded. This justification is based on using hexane, which is both a HAP and a VOC, as the solvent. Permit conditions have been written so that a non-HAP VOC solvent could be substituted. For a non-HAP VOC solvent, the input limit would be thirteen and six-tenths (13.6) tons per year and the modification would be subject to 326 IAC 2-7-10.5(d)(4)(B)(iii). The permit modification for approval to operate is being performed pursuant to 326 IAC 2-7-12(b).

County Attainment Status

The source is located in Martin County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_x	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Martin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Martin County has been classified as attainment or unclassifiable for all criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	Greater than 250
PM-10	Greater than 250
SO_2	Greater than 100, Less than 250
VOC	Greater than 250
CO	Greater than 250
NOx	Greater than 250

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one (1) of the twenty-eight (28) listed source categories.

(b) These emissions are based on the Technical Support Document for T101-7341-00005, issued May 15, 2001.

Potential to Emit of Modification After Issuance

For comparison with PSD significance levels, emissions for this modification have been combined with those of three (3) other new additions at the source: the Contained Detonation Chamber (CDC) (Significant Source Modification 101-14789-00005, issued January 3, 2002); the Mobile Plasma Treatment System (MPTS) (Significant Source Modification 101-14772-00005, issued June 7, 2002); and the Flare Manufacturing Process in Buildings 2504 and 145 (Minor Source Modification 101-15490-00005, issued June 26, 2002). The emissions from these modifications are being evaluated in combination because these units are being added within a brief period of time.

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Flare Manufacturing Process - Building 198	0	0	0	Less than 13.6	0	0	Less than 10
Flare Manufacturing Process - Buildings 2504 and 145	0	0	0	Less than 25	0	0	Less than 10
MPTS	0.60	0.60	19.75	1.17	2.91	25.41	Less than 0.1
CDC	0.51	0.51	0.08	0.18	96.56	14.45	Less than 0.1
Total	1.11	1.11	19.83	Less than 40	99.47	39.86	Less than 20.2
PSD Significant Thresholds	25	25	40	40	100	40	---

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

(c) This modification is not subject to the provisions of 40 CFR Part 64, Compliance Assurance Monitoring. In order for this rule to apply, a pollutant-specific-emissions-unit at a source that requires a Part 70 or Part 71 permit must meet three criteria for a given pollutant: 1) the unit is subject to an applicable emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and 3) the unit has the potential to emit, of the applicable regulated air pollutant, equal or greater than one hundred percent (100%) of the amount required for a source to be classified as a major source. The potential to emit of this modification when using solvent recovery and wasted disposal does not exceed one hundred percent (100%) of the amount required for a source to be classified as a major source. Therefore this modification is not subject to CAM.

(d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this modification because (1) the modification is limiting emissions of a single HAP to less than ten (10) tons per year and emissions of any combination of HAPs are less than twenty-five (25) tons per year and 2) the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

The VOC emissions from the flare manufacturing process in Building 198 shall be less than thirteen and six-tenths (13.6) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly VOC emissions shall be calculated using the following equation:

VOC Emissions (ton/month) = VOC Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

This limit is structured such that when including the VOC emissions the flare manufacturing process in Buildings 2504 and 145, the MPTS, and the CDC, all new units constructed in 2002, the total VOC emissions from the modifications are less than forty (40) tons per year. Compliance with this limit renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable to this modification.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

The emissions of a single HAP from the flare manufacturing process in Building 198 shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The emissions of any combination of HAPs from the flare manufacturing process in Building 198 shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly HAP emissions shall be calculated using the following equation:

HAP Emissions (ton/month) = HAP Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

Compliance with these limits renders the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable to this modification.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued, these revisions have not been approved by

EPA into the Indiana State Implementation Plan (SIP); therefore, the requirements from the previous version of 326 IAC 6-3 (Process Operations), which have been approved into the SIP, will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

The flare manufacturing process does not have the potential to emit particulate. Therefore neither the previous version of 326 IAC 6-3 (Process Operations) nor the revised version of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) apply to this modification.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The VOC emissions from the flare manufacturing process in Building 198 shall be less than thirteen and six-tenths (13.6) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly VOC emissions shall be calculated using the following equation:

VOC Emissions (ton/month) = VOC Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

Compliance with this limitation renders the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to this modification.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Proposed Changes

The following changes are proposed to T101-7341-00005, issued May 15, 2001, as a result of this Significant Permit Modification. Text in bold was added and text with a line through it was deleted. The Table of Contents was updated on an as needed basis.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

SECTION D.23 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

(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 2-7-5(1)]

D.23.1 Volatile Organic Compounds [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

(a) Emissions of VOCs from the **flare manufacturing** process **located in Buildings 2504 and 145** shall be limited to less than 25 tons per consecutive twelve (12) month period **with compliance determined at the end of each month**. Monthly VOC emissions shall be calculated using the following equation:

VOC emissions (tons/month) = ~~hexane~~ **VOC** used (tons/month) + acetone used (tons/month) - waste solvent generated (tons/month)

Compliance with this limit makes 326 IAC 8-1-6 (New Facilities) not applicable. Compliance with this limit also makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

(b) The VOC emissions from the flare manufacturing process in Building 198 shall be less than thirteen and six-tenths (13.6) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly VOC emissions shall be calculated using the following equation:

VOC Emissions (ton/month) = VOC Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

This limit is structured such that when including the VOC emissions the flare manufacturing process in Buildings 2504 and 145, the MPTS, and the CDC, all new units constructed in 2002, the total VOC emissions from the modifications are less than forty (40) tons per year. Compliance with this limit renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 5.21 not applicable to this modification. Compliance with this limit also renders the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

D.23.2 Hazardous Air Pollutants [326 IAC 2-4.1][40 CFR 63]

(a) Emissions of any individual HAP from the **flare manufacturing** process **in Buildings 2504 and 145** shall be limited to less than 10 tons per consecutive twelve (12) month period **with compliance determined at the end of each month**. Emissions of any

combination HAPs from the **flare manufacturing** process **in Buildings 2504 and 145** shall be limited to less than 25 tons per consecutive twelve (12) month period **with compliance determined at the end of each month**. Monthly HAP emissions shall be calculated using the following equation:

~~hexane~~ **HAP** emissions (tons/month) = ~~hexane~~ **HAP** used (tons/month) + acetone used (tons/month) - waste solvent generated (tons/month)

Compliance with this limit makes 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable.

(b) The emissions of a single HAP from the flare manufacturing process in Building 198 shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The emissions of any combination of HAPs from the flare manufacturing process in Building 198 shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly HAP emissions shall be calculated using the following equation:

HAP Emissions (ton/month) = HAP Used (ton/month) + Acetone Used (ton/month) - Waste Solvent Generated (ton/month)

Compliance with these limits renders the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable to this modification.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.23.3 Record Keeping Requirements

(a) To document compliance with Conditions D.23.1 and D.23.2 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC and HAP emission limits established in Conditions D.23.1 and D.23.2.

(1) The amount of ~~hexane~~ **VOC, HAP,** and acetone used by ~~the~~ **each flare manufacturing** process. Records shall include purchase orders and invoices necessary to verify the amount used.

(2) A log of the dates of ~~hexane~~ **VOC, HAP,** and acetone usage **by each flare manufacturing process**;

(3) The amount of waste solvent generated by ~~the~~ **each manufacturing** process. Records shall include hazardous waste manifests necessary to verify the amount generated.

(4) A log of the dates of hazardous waste generation.

(5) The weight of HAPs and VOCs emitted **for each manufacturing process** for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No: 101-15490-00005
Facility: Flare Manufacturing Process **in Buildings 2405 and 145**
Parameter: Tons of VOC
Limit: 25 tons VOC emitted per consecutive (12) month period **with compliance determined at the end of each month**
Equation: VOC emissions (tons/month) = ~~hexane~~ **VOC** usage (tons/month) + acetone usage (tons/month) - waste solvent generated (tons/month)

YEAR:_____

Month	This month	Previous 11 months	12 months total
	VOC	VOC	VOC
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No: 101-15490-00005
Facility: Flare Manufacturing Process in Building 198
Parameter: Tons of VOC
Limit: 13.6 tons VOC emitted per twelve (12) consecutive month period with compliance determined at the end of each month
Equation: VOC Emissions (tons/month) = VOC Usage (tons/month) + Acetone Usage (tons/month) - Waste Solvent Generated (tons/month)

YEAR:_____

Month	This month	Previous 11 months	12 months total
	VOC	VOC	VOC
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No: 101-15490-00005
Facility: Flare Manufacturing Process in Building 198
Parameter: Tons of HAP
Limit: 10 tons of any single HAP or 25 tons of any combination of HAPs emitted per twelve (12) consecutive month period with compliance determined at the end of each month
Equation: HAP Emissions (tons/month) = HAP Usage (tons/month) + Acetone Usage (tons/month) - Waste Solvent Generated (tons/month)

YEAR:_____

Month	This month	Previous 11 months	12 months total
	HAP	HAP	HAP
Month 1			
Month 2			
Month 3			

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the proposed Part 70 Minor Source Modification No. 101-16288-00005, and the operation of this proposed modification shall be subject to the conditions of the proposed Part 70 Minor Permit Modification No. 101-16761-00005.

Company Name: Naval Surface Warfare Ceneter - Crane
Address City IN Zip: 300 Highway 36, Crane, Indiana 47522
Permit Number: MSM101-16288-00005
Plt ID: 101-00005
Reviewer: ERG/KC
Date: 11/13/02

Unlimited PTE
Gross Hexane Usage: 20 (gal/batch) * 3 (batches/day) * 365 (days/yr) * 5.5 lb/gal / 2000 (lb/ton) = 60.23 ton/yr

PTE from Sample Batches
Gross Hexane Usage: 4 (gal/batch) * 12 (batches/yr) * 5.5 lb/gal / 2000 (lb/ton) = 0.13 ton/yr

PTE from Test Batches
Gross Hexane Usage: 20 (gal/batch) * 3 (batches/yr) * 5.5 lb/gal / 2000 (lb/ton) = 0.17 ton/yr

PTE from Ignition Composition
Gross Hexane Usage: 3 (gal/batch) * 26 (batches/yr) * 5.5 lb/gal / 2000 (lb/ton) = 0.21 ton/yr

Total Gross Hexane Usage = 60.74 ton/yr

PTE with Solvent Recovery
Magnesium Teflon Compound Production 150 lb/day (3 batches at 50 lb/batch)

Hexane Lost During Drying = 150 (lb/day) * 365 (day/yr) / 2000 (lb/ton) * 0.141 (loss %) = 3.86 ton/yr

Hexane Lost During Mixing = Negligible (approximately 1 lb/day) = 0.18 ton/yr

Hexane Lost During Air Drying = Negligible (approximately 10 lb/day) = 1.83 ton/yr

Hexane Lost from Sample Batch = 4 (gal/batch) * 12 (batch/yr) * 5.5 (lb/gal) / 2000 (lb/ton) * 0.141 (loss %) = 0.02 ton/yr

Hexane Lost from Test Batch = 20 (gal/batch) * 3 (batch/yr) * 5.5 (lb/gal) / 2000 (lb/ton) * 0.141 (loss %) = 0.02 ton/yr

Hexane from Ingnition Composition = 3 (gal/batch) * 26 (batches/yr) * 5.5 lb/gal / 2000 (lb/ton) * 0.141 (loss %) = 0.03 ton/yr