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: August 3, 2010

RE: Orica USA, Inc. / 019-29051-00080

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

Notice of Decision: Approval - Effective Immediately

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 IC 13-15-5-3, this permit 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.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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 of 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.dot12/03/07

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

Minor Source Operating Permit Renewal
OFFICE OF AIR QUALITY

Orica USA, Inc.
6200 E State Road 62, Building 3019
Jeffersonville, Indiana 47130

(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 to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M019-29051-00080	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 3, 2010 Expiration Date: August 3, 2020

TABLE OF CONTENTS

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 Malfunctions Report [326 IAC 1-6-2]
C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]
C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

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 describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary production plant for the manufacturing of bulk and packaged emulsion explosives.

Source Address:	6200 E State Road 62 Building 3019 Jeffersonville, Indiana 47130
General Source Phone Number:	812-256-5983
SIC Code:	2892 (Miscellaneous Chemical Products - Explosives)
County Location:	Clark
Source Location Status:	Nonattainment for $PM_{2.5}$ standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) propellant vacuum conveying system, (S-4) with a maximum capacity of 9,000 pounds per hour of propellant, constructed in 1996, equipped with an integral product filter separator, and exhausting to one (1) stack ID # S-4;

(b) One (1) microballoon vacuum conveying system, with a maximum capacity of 2,700 pounds per hour of microballoons, constructed in 1996, equipped with an integral product filter separator, and exhausting to the indoors;

(c) One (1) fixed flat top vertical tank for the storage of microballoons, identified as T-21, with a maximum capacity of 2,700 pounds per hour, constructed in 1999, using an integral baghouse as control, and exhausting to one (1) stack ID # S-21;

(d) One (1) fixed vertical custom storage bin for the storage of microballoons, (T-29) with a maximum capacity of 2,700 pounds per hour, to be constructed in 2010, exhausting to the outdoors.

(e) One (1) ammonium nitrate prill conveying system (Rail Unloading Area) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1999, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) Four (4) storage bins, identified as T-22, T-23, T-24, and T-25, each with a maximum

capacity of 60 tons of ammonium nitrate prills, constructed in 1999, and exhausting to four (4) vents ID # V-22, V-23, V-24, and V-25.

(f) One (1) ammonium nitrate prill conveying system (Main Plant) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1996, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) One (1) storage bin, identified as T-3, with a maximum capacity of 60 tons of ammonium nitrate prills, constructed in 1996, and exhausting to one (1) vent ID # V-3.

(g) One (1) sodium nitrate conveying system, with a maximum capacity of 60,000 pounds per hour of sodium nitrate, constructed in 1995, and consisting of the following emission unit(s):

(1) One (1) bucket elevator.

(h) Two (2) distillate fuel oil fired boilers, identified as SB-1 and SB-2, constructed in 1996, with a maximum heat input rate of 5.25 million British thermal units per hour, each exhausting through one (1) stack ID # S-1 and S-7, respectively;

(i) One (1) diesel fired boiler, constructed in 2005, identified as SB-3, with a maximum heat input rate of 5.0 million British thermal units per hour, exhausting to one (1) stack ID # S-8;

(j) Two (2) diesel fired emergency generators, identified as EG-1 and EG-2, constructed in 1996 and 2005, respectively, each with a maximum power output rate of 134 and 115 HP, respectively, each exhausting to one (1) stack ID # S-3 and S-9, respectively;

(k) One (1) storage tank, identified as T-26, with a maximum capacity of 6,000 gallons, constructed in 2005 and storing diesel fuel;

(l) Two (2) storage tanks, identified as T-27 and T-28, each with a maximum capacity of 297,000 gallons, constructed in 2005 and storing ammonium nitrate solution;

(m) Four (4) storage tanks, identified as T-13, T-14, T-16, and T-18, each with a maximum capacity of 23,500, 12,000, 12,000 and 12,100 gallons, respectively, constructed in 1996 and storing oil blend;

(n) Four (4) storage tanks, identified as T-11, T-12, T-15, and T-17, each with a maximum capacity of 13,000, 13,000, 23,500 and 23,500 gallons, respectively, constructed in 1996 and storing ammonium nitrate solution;

(o) Eight (8) fixed cone roof vertical storage tanks, identified as T-1, T-2, T-5, T-6, T-7, T-8, T-9, and T-10, each with a maximum capacity of 12,500 gallons, constructed in 1996 and storing explosives emulsions;

(p) Three (3) horizontal storage tanks, identified as T-4, T-19, and T-20, each with a maximum capacity of 12,000, 6,000 and 275 gallons, respectively, constructed in 1995 and storing #2 fuel oil;

(q) One (1) emulsion manufacturing process, consisting of the following emission units:

(1) One (1) plate and forced air heat exchanger and;

(2) One (1) 30 gallon expansion tank.

(r) Three (3) hydraulic tanks, identified as HT-1, HT-2, and HT-3, constructed in 1996 and each with a maximum capacity of 110, 130, and 110 gallons, respectively.

SECTION B GENERAL CONDITIONS

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

Terms in this permit 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 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M019-29051-00080, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(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 permit.

(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, Indiana 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.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M019-29051-00080 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 permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and

(2) 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.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.15 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.18 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

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

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(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 permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of thirty percent (30%) 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

The Permittee 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).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative

instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.12 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

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

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.

(c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) propellant vacuum conveying system, with a maximum capacity of 9,000 pounds per hour of propellant, constructed in 1996, equipped with an integral product filter separator, and exhausting to one (1) stack ID # S-4;

(b) One (1) microballoon vacuum conveying system, with a maximum capacity of 2,700 pounds per hour of microballoons, constructed in 1996, equipped with an integral product filter separator, and exhausting to the indoors;

(c) One (1) fixed flat top vertical tank for the storage of microballoons, identified as T-21, with a maximum capacity of 2,700 pounds per hour of microballoons, constructed in 1999, using an integral baghouse as control, and exhausting to one (1) stack ID # S-21;

(d) One (1) fixed, vertical, custom storage bin, identified as T-29, for the storage of microballoons, with a maximum capacity of 2,700 pounds of microballoons per hour, to be constructed in 2010, and exhausting to the outdoors.

(e) One (1) ammonium nitrate prill conveying system (Rail Unloading Area) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1999, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) Four (4) storage bins, identified as T-22, T-23, T-24, and T-25, each with a maximum capacity of 60 tons of ammonium nitrate prills, constructed in 1999, and exhausting to four (4) vents ID # V-22, V-23, V-24, and V-25.

(f) One (1) ammonium nitrate prill conveying system (Main Plant) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1996, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) One (1) storage bin, identified as T-3, with a maximum capacity of 60 tons of ammonium nitrate prills, constructed in 1996, and exhausting to one (1) vent ID # V-3.

(g) One (1) sodium nitrate conveying system, with a maximum capacity of 60,000 pounds per hour of sodium nitrate, constructed in 1995, and consisting of the following emission unit(s):

(1) One (1) bucket elevator.

(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 2-6.1-5(a)(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
Propellant Vacuum Conveying System (S-4)	4.5	11.23
Microballoon Vacuum Conveying System	1.35	5.01
Microballoon Storage Tank Baghouse (S-21)	1.35	5.01
Microballoon Storage Tank (T-29)	1.35	5.01
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	22.5	33.02
Ammonium Nitrate Prill Conveying System (Main Plant)	22.5	33.02
Sodium Nitrate Conveying System	30.0	40.04

D.1.2 Preventive Maintenance Plan

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.3 Particulate Control

To document compliance with Condition D.1.1, each product filter separator and baghouse for particulate control shall be in operation and control emissions from the listed facilities at all times that the facilities are in operation.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(h) Two (2) distillate fuel oil fired boilers, identified as SB-1 and SB-2, constructed in 1996, with a maximum heat input rate of 5.25 million British thermal units per hour, each exhausting to one (1) stack ID # S-1 and S-7, respectively;

(i) One (1) diesel fired boiler, constructed in 2005, identified as SB-3, with a maximum heat input rate of 5.0 million British thermal units per hour, exhausting to one (1) stack ID # S-8;

(j) Two (2) diesel fired emergency generators, identified as EG-1 and EG-2, constructed in 1996 and 2005, respectively, each with a maximum power output rate of 134 and 115 HP, respectively, each exhausting to one (1) stack ID # S-3 and S-9, respectively;

(k) One (1) storage tank, identified as T-26, with a maximum capacity of 6,000 gallons, constructed in 2005 and storing diesel fuel;

(l) Two (2) storage tanks, identified as T-27 and T-28, each with a maximum capacity of 297,000 gallons, constructed in 2005 and storing ammonium nitrate solution;

(m) Four (4) storage tanks, identified as T-13, T-14, T-16, and T-18, each with a maximum capacity of 23,500, 12,000, 12,000 and 12,100 gallons, respectively, constructed in 1996 and storing oil blend;

(n) Four (4) storage tanks, identified as T-11, T-12, T-15, and T-17, each with a maximum capacity of 13,000, 13,000, 23,500 and 23,500 gallons, respectively, constructed in 1996 and storing ammonium nitrate solution;

(o) Eight (8) fixed cone roof vertical storage tanks, identified as T-1, T-2, T-5, T-6, T-7, T-8, T-9, and T-10, each with a maximum capacity of 12,500 gallons, constructed in 1996 and storing explosives emulsions;

(p) Three (3) horizontal storage tanks, identified as T-4, T-19, and T-20, each with a maximum capacity of 12,000, 6,000 and 275 gallons, respectively, constructed in 1995 and storing #2 fuel oil;

(q) One (1) emulsion manufacturing process, consisting of the following emission units:

(1) One (1) plate and forced air heat exchanger and;

(2) One (1) 30 gallon expansion tank.

(r) Three (3) hydraulic tanks, identified as HT-1, HT-2, and HT-3, constructed in 1996 and each with a maximum capacity of 110, 130, and 110 gallons, 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 2-6.1-5(a)(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitation for facilities specified in 326 IAC 6-2-(d)), the particulate matter from each 5.25 MMBtu per hour heat input boiler, identified as SB-1 and SB-2, shall be limited to 0.59 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
Q = Total source maximum operating capacity rating in MMBtu/hr
= 10.5 MMBtu/hr

$$Pt = \frac{1.09}{10.5^{0.26}} = \frac{1.09}{1.89} = 0.59 \text{ pounds per MMBtu heat input}$$

(b) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitation for facilities specified in 326 IAC 6-2-1(d)), the PM from the 5.0 MMBtu per hour heat input boiler, identified as SB-3, shall be limited to 0.53 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
Q = Total source maximum operating capacity rating in MMBtu/hr
= 15.5 MMBtu/hr (total of three boilers)

$$Pt = \frac{1.09}{15.5^{0.26}} = \frac{1.09}{1.89} = 0.53 \text{ pounds per MMBtu heat input}$$

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Orica USA, Inc.
Address:	6200 E State Road 62, Building 3019
City:	Jeffersonville, Indiana 47130
Phone #:	812-256-5983
MSOP #:	M019-29051-00080

I hereby certify that Orica USA, Inc. is :

□ still in operation.
□ no longer in operation.

I hereby certify that Orica USA, Inc. is :

□ in compliance with the requirements of MSOP M019-29051-00080.
□ not in compliance with the requirements of MSOP M019-29051-00080.

Authorized Individual (typed):
Title:
Signature:
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:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Minor Source Operating Permit Renewal

Source Description and Location

Source Name:	**Orica USA, Inc.**
Source Location:	**6200 East Highway 62, Building 3019, Jeffersonville, IN 47130-2251**
County:	**Clark**
SIC Code:	**2892 (Miscellaneous Chemical Products - Explosives)**
Permit Renewal No.:	**019-29051-00080**
Permit Reviewer:	**Deborah Cole**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Orica USA, Inc. relating to the operation of a stationary production plant for the manufacturing of bulk and packaged emulsion explosives.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Minor Source Operating Permit No.: 019-20631-00080, issued on September 9, 2005

(b) Notice-Only Change No. 019-26480-00080, issued on July 16, 2008

County Attainment Status

The source is located in Clark County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective July 19, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for $PM_{2.5}$.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Clark County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$

Clark County has been classified as nonattainment for $PM_{2.5}$ in 70 FR 943 dated January 5, 2005. On May 8th, 2008, U.S. EPA promulgated specific New Source Review rules for $PM_{2.5}$ emissions, and the effective date of these rules was July 15th, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the

State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Clark County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) Since this source is classified as a chemical process plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Permitted Emission Units and Pollution Control Equipment

On March 4, 2010, Orica USA, Inc. submitted an application to the OAQ requesting to renew its operating permit. Orica USA, Inc. was issued a Minor Source Operating Permit on September 9, 2005.

On July 16, 2008, Orica USA, Inc. was issued a Notice Only Change relating to the inclusion of existing emission unit descriptions in the permit as well as the revision and clarification of other emission unit descriptions

The source consists of the following permitted emission units:

(a) One (1) propellant vacuum conveying system, (S-4) with a maximum capacity of 9,000 pounds per hour of propellant, constructed in 1996, equipped with an integral product filter separator, exhausting to one (1) stack ID # S-4;

(b) One (1) microballoon vacuum conveying system, with a maximum capacity of 2,700 pounds per hour of microballoons, constructed in 1996, equipped with an integral product filter separator, and exhausting to the indoors;

(c) One (1) fixed flat top vertical tank for the storage of microballoons, identified as T-21, with a maximum capacity of 2,700 pounds per hour of microballoons, constructed in 1999, using an integral baghouse as control, and exhausting to one (1) stack ID # S-21;

(d) One (1) ammonium nitrate prill conveying system (Rail Unloading Area) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1999, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) Four (4) storage bins, identified as T-22, T-23, T-24, and T-25, each with a maximum capacity of 60 tons of ammonium nitrate prills, constructed in 1999, and exhausting to four (4) vents ID # V-22, V-23, V-24, and V-25.

(e) One (1) ammonium nitrate prill conveying system (Main Plant) with a maximum capacity of 45,000 pounds per hour of ammonium nitrate prills, constructed in 1996, and consisting of the following emission units:

(1) One (1) screw conveyor;

(2) One (1) bucket elevator and;

(3) One (1) storage bin, identified as T-3, with a maximum capacity of 60 tons of ammonium nitrate prills, constructed in 1996, and exhausting to one (1) vent ID # V-3.

(f) Two (2) diesel fired boilers, identified as SB-1 and SB-2, constructed in 1996, with a maximum heat input rate of 5.25 million British thermal units per hour, each exhausting through one (1) stack ID # S-1 and S-7, respectively;

(g) One (1) diesel fired boiler, constructed in 2005, identified as SB-3, with a maximum heat input rate of 5.0 million British thermal units per hour, exhausting to one (1) stack ID # S-8;

(h) Two (2) diesel fired emergency generators, identified as EG-1 and EG-2, constructed in 1996 and 2005, respectively, each with a maximum power output rate of 134 and 115 HP, respectively, each exhausting to one (1) stack ID # S-3 and S-9, respectively;

(i) One (1) storage tank, identified as T-26, with a maximum capacity of 6,000 gallons, constructed in 2005 and storing diesel fuel;

(j) Two (2) storage tanks, identified as T-27 and T-28, each with a maximum capacity of 297,000 gallons, constructed in 2005 and storing ammonium nitrate solution;

(k) Four (4) storage tanks, identified as T-13, T-14, T-16, and T-18, each with a maximum capacity of 23,500, 12,000, 12,000 and 12,100 gallons, respectively, constructed in 1996 and storing oil blend;

(l) Four (4) storage tanks, identified as T-11, T-12, T-15, and T-17, each with a maximum capacity of 13,000, 13,000, 23,500 and 23,500 gallons, respectively, constructed in 1996 and storing ammonium nitrate solution;

(m) Eight (8) fixed cone roof vertical storage tanks, identified as T-1, T-2, T-5, T-6, T-7, T-8, T-9, and T-10, each with a maximum capacity of 12,500 gallons, constructed in 1996 and storing explosives emulsions;

(n) Three (3) horizontal storage tanks, identified as T-4, T-19, and T-20, each with a maximum capacity of 12,000, 6,000 and 275 gallons, respectively, constructed in 1995 and storing #2 fuel oil;

(o) One (1) emulsion manufacturing process, consisting of the following emission units:

(1) One (1) plate and forced air heat exchanger and;

(2) One (1) 30 gallon expansion tank.

(p) Three (3) hydraulic tanks, identified as HT-1, HT-2, and HT-3, constructed in 1996 and each with a maximum capacity of 110, 130, and 110 gallons, respectively.

"Integral to the Process" Determination

(a) An integral to the process determination was conducted and approved for the propellant pneumatic conveying system (now identified as the propellant vacuum conveying system) and for the microballoon pneumatic conveying system (now identified as the microballoon vacuum conveying system).

IDEM determined in CP019-4964-00080, issued on March 22, 1996, that these two emission units did not have baghouses for control but rather both systems had a product filtration system that was determined to be integral to the process.

New Emission Unit and/or Pollution Control Equipment

The source also consists of the following emission unit:

(a) One (1) fixed, vertical, custom storage bin, identified as T-29, for the storage of microballoons, with a maximum capacity of 2,700 pounds of microballoons per hour, to be constructed in 2010, and exhausting to the outdoors.

Note: No baghouse is planned for this storage silo.

Emission Units and Pollution Control Equipment Removed From the Source

No emissions units have been removed from the facility since the issuance of Notice-Only Change No.: 019-26480-00080 on July 16, 2008.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	8.48
PM10[(1)]	8.48
PM2.5	8.48
SO_2	32.53
NO_x	11.70
VOC	0.37
CO	2.86

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
TOTAL HAPs	**Negligible**

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.

(b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

(c) Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.

PTE of the Entire Source After Issuance of the MSOP

The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of MSOP (tons/year)								
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Propellant Vacuum Conveying System (S-4)	0.16	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Vacuum Conveying System	0.04	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Storage Tank Baghouse (S-21)	0.56	0.56	0.56	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Storage Silo (T-29)	0.04	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.0
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.0
Ammonium Nitrate Prill Conveying System (Main Plant)	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.0
Sodium Nitrate Conveying System	2.63	2.63	2.63	0.0	0.0	0.0	0.0	0.0	0.0
Two (2) Diesel-fired Steam Boilers (SB-1 and SB-2)	0.66	0.66	0.66	23.32	6.57	0.11	1.64	negl.	negl.
One (1) 150 HP Diesel Fired Boiler (SB-3)	0.32	0.32	0.32	9.08	3.20	0.05	0.80	negl.	negl.
Two (2) Emergency Generators (EG-1 and EG-2)	0.14	0.14	0.14	0.13	1.93	0.16	0.42	negl.	negl.
Storage and Process Tanks	0.0	0.0	0.0	0.0	0.0	0.05	0.0	negl.	negl.
Total PTE of Entire Source	**8.48**	**8.48**	**8.48**	**32.53**	**11.70**	**0.37**	**2.86**	**negl.**	**negl.**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	N/A	N/A	250	250	250	250	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	N/A	100	100	N/A	N/A	N/A	N/A	NA	NA

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
In the absence of valid PM10 and PM 2.5 emission factors, these emissions are assumed equal to PM emissions.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) The requirements of the New Source Performance Standard, (326 IAC 12, 40 CFR 60.110a, Subpart Ka) apply to each storage vessel with a storage capacity greater than 151,416 liters

(40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.

The requirements of the New Source Performance Standard, (326 IAC 12, (40 CFR 60.110a, Subpart Ka) do not apply to this source since the source does not have any storage vessel with a storage capacity greater than 40,000 gallons that is used to store petroleum liquids for which construction commenced after 1978.

(b) The requirements of the New Source Performance Standard, (326 IAC 12, 40 CFR 60.110b, Subpart Kb) apply to any volatile organic liquid (VOL) storage vessel with a capacity of 75 m^3 (19,800 gallon) or greater for which construction commenced after July 23, 1984.

The requirements of the New Source Performance Standard, (326 IAC 12, 40 CFR 60.110b, Subpart Kb) do not apply to any volatile organic liquid (VOL) storage vessel with a capacity greater than or equal to 75 m^3 (19,800 gallon) but less than 151 m^3 (39,890 gallon) storing a liquid with a maximum true vapor pressure less than 15 kPa. The liquid stored in each tank has a maximum true vapor pressure of less than 15 kPa.

(c) The requirements of the New Source Performance Standard, (326 IAC 12, 40 CFR 60.40c, Subpart Dc) apply to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 million Btu per hour (MMBtu/hr) or less but greater than 10 MMBtu/hr.

The requirements of New Source Performance Standard, (326 IAC 12, 40 CFR 60.40c) do not apply to the two (2) distillate fuel oil fired boilers, identified as SB-1 and SB-2, each with a rated heat input capacity of 5.25 MMBtu per hour or to the one (1) diesel fired boiler, identified as SB-3, with a rated heat input capacity of 5.0 MMBtu per hour because their individual rated heat input capacity is each less than the rule applicability threshold of 10 MMBtu/hr.

(d) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) The requirements of National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63.6585, Subpart ZZZZ) establish national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions

The requirements of 40 CFR 63.6585, Subpart ZZZZ do not apply to the two (2) stationary reciprocating internal combustion engines because the two RICE are emergency, stationary RICE as defined in §63.6675 and the source is not a major source of HAP emissions.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers and Process Heaters did not apply to the three boilers at this source because the source is not a major source of hazardous air pollutants as defined in 40 CFR 63.2

On June 8, 2007, The United States Court of Appeals for the District of Columbia Circuit (in *National Resource Defense Council, Sierra Club, Environmental Integrity Project* v. *EPA*, no. 04-1386) vacated, in its entirety, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective.

(c) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) for Chemical Manufacturing Area Sources, (40 CFR 63.11494, Subpart VVVVVV), establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from chemical manufacturing process units (CMPU).

The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) for Chemical Manufacturing Area Sources, (40 CFR 63.11494, Subpart VVVVVV), do not apply to this chemical manufacturing process source because the source does not use as feedstocks, generate as byproducts, or produce as products any of the hazardous chemicals listed in Table 1 to Subpart VVVVV of Part 63- "Hazardous Air Pollutants Used to Determine Applicability of Chemical Manufacturing Operations" ; therefore, Table 1 HAP would not be present in feedstocks, or generated or produced in the CMPU or present in the process fluid. Additionally, the source's hazardous air pollutant emissions are negligible

Type of HAP	Chemical Name	CAS No.
1. Organic Compounds	a. 1,3 -butadience	10699
	b. 1,3, dichloropropene	542756
	c. Acetaldehyde	75070
	d. Chloroform	67663
	e. Ethylene dichloride	107062
	f. Hexachlorobenzene	118741
	g. Methylene chloride	75092
	h. Quinoline	91225
2. Metal Compounds	a. Arsenic compounds	
	b. Cadmium compounds	
	c. Chromium compounds	
	d. Lead compounds	
	e. Manganese compounds	
	f. Nickel compounds	
Others	a. Hydrazine	302012

(d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination - Entire Source

(a) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) 326 IAC 2-3 (Emission Offset)
This existing source is not a major stationary source, under Emission Offset (326 IAC 2-3), because the potential to emit all nonattainment regulated pollutants are less than 100 tons per year. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

This existing source is not a major stationary source, under 326 IAC 2-1.1-5 (Nonattainment New

Source Review), because the potential to emit particulate matter with a diameter less than ten 2.5 micrometers (PM2.5), is less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

(d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

(e) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

(f) 326 IAC 5-1 (Opacity Limitations)
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 permit:

(1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) 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.

(g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(h) 326 IAC 7-1.1-1 - Sulfur Dioxide Emissions Limitations
The requirements of 326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations) do not apply to this source because no emission unit has the potential to emit SO2 greater than 25 tons per year.

(i) 326 IAC 8-1-6 (New Facilities; General VOC Reduction Requirements)
This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a potential to emit (PTE) VOC at 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. No facility at this source has the potential to emit VOC at 25 tons per year or more. Therefore, 326 IAC 8-1-6 is not applicable to this source.

(i) 326 IAC 8-6-1 (Organic Solvent Emissions Limitations)
326 IAC is not applicable to this source because the source is located in Clark County and the potential to emit VOC is less than one hundred (100) tons per year.

Conveying System:

(k) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the ammonium nitrate conveying system shall be limited as specified in the following table:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
Propellant Vacuum Conveying System (S-4)	4.5	11.23
Microballoon Vacuum Conveying System	1.35	5.01
Microballoon Storage Tank Baghouse (S-21)	1.35	5.01
Microballoon Storage Tank (T-29)	1.35	5.01
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	22.5	33.02
Ammonium Nitrate Prill Conveying System (Main Plant)	22.5	33.02
Sodium Nitrate Conveying System	30.0	40.04

Propellant Vacuum Conveying System (S-4)
Based on Appendix A, the potential PM emission rate for the propellant pneumatic conveying system (S-4) is 0.0365 lbs/hour which is less than the allowable 11.23 pounds of PM per hour. Consequently, the propellant pneumatic conveying system (S-4) is in compliance with this rule.

0.16 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.0365 pounds per hour PM emissions

Microballoon Vacuum Conveying System
Based on Appendix A, the potential PM emission rate for the Microballoon Vacuum Conveying System is 0.009 lbs/hour which is less than the allowable 5.01 pounds of PM per hour. Consequently, the Microballoon Vacuum Conveying System is in compliance with this rule.

0.04 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.009 pounds per hour PM emissions

Microballoon Storage Tank Baghouse
Based on Appendix A, the potential PM emission rate for the Microballoon Storage Tank Baghouse is 0.1278 lbs/hour which is less than the allowable 5.01 pounds of PM per hour. Consequently, the Microballoon Storage Tank Baghouse is in compliance with this rule.

0.56 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.1278 pounds per hour PM emissions

Sodium Nitrate Conveying System
Based on Appendix A, the potential PM emission rate for the Sodium Nitrate Conveying System is 0.1278 lbs/hour which is less than the allowable 40.04 pounds of PM per hour. Consequently, the Sodium Nitrate Conveying System is in compliance with this rule.

2.63 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.6 pounds per hour PM emissions

Ammonium Nitrate Prill Conveying System (Rail Unloading Area)
Based on Appendix A, the potential emission rate for the Ammonium Nitrate Prill Conveying System is 0.4 lbs/hour which is less than the allowable 33.02 pounds of PM per hour. Consequently, the Ammonium Nitrate Prill Conveying System is in compliance with this rule.

1.97 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.4 pounds per hour PM emissions

Ammonium Nitrate Prill Conveying System (Main Plant)
Based on Appendix A, the potential emission rate for the Ammonium Nitrate Prill Conveying System is 0.4 lbs/hour which is less than the allowable 33.02 pounds of PM per hour. Consequently, the Ammonium Nitrate Prill Conveying System is in compliance with this rule.

1.97 tons/yr X (2000 lbs/ton/8760 hrs/year) = 0.4 pounds per hour PM emissions

The control equipment for the propellant vacuum conveying system, the microballoon vacuum conveying system, and the microballoon storage tank operation shall be in operation at all times the above processes are in operation in order to comply with these limits.

(l) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Even though this source is located in one of the target counties (Clark), 326 IAC 6.5 is not applicable to this source because the source is not specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10 nor does it have the potential to emit of one hundred (100) tons or more of particulate matter.

Boilers

(k) 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-4, particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of PM emitted per MMBtu (lb/MMBtu) heat input
Q = total source maximum operating capacity rating in million Btu per hour

The source currently has three boilers: SB 1 and SB 2 which were both constructed in 1996, each with a maximum heat capacity of 5.25 MMBtu per hour, and SB 3 constructed in 2005 with a maximum heat capacity of 5.0 MMBtu per hour. All three boilers were constructed after the rule applicability date of September 21, 1983; therefore, pursuant to 326 IAC 6-4-2, all three boilers are subject to this rule.

Pt for each SB-1 and SB-2, constructed in 1996, is based on the combined heat input of both the boilers, each having a heat input of 5.25 MMBtu/hr each. Therefore, the total heat input SB-1 and SB-2 is 10.5 MMBtu/hr.

$$Pt = \frac{1.09}{(10.5)^{0.26}} = 0.59 \text{ lb/MMBtu}$$

Pt for SB-3, constructed in 2005, is based on combined heat input of all three boilers. The combined heat input of SB-1 and SB-2 is 10.5 MMBtu. The heat input of SB-3 is 5.0MMBtu/hr. Therefore, the total heat input of SB-1, SB-2 and SB-3 is 15.5 MMBtu/hr.

$$Pt = \frac{1.09}{(15.5)^{0.26}} = 0.53 \text{ lb/MMBtu}$$

The allowable particulate emission rate from each boiler is as follows:

SB-1 0.59 pounds per MMBtu heat input
SB-2 0.59 pounds per MMBtu heat input
SB 3 0.53 pounds per MMBtu heat input

The potential PM emission rate for each boiler is as follows:

SB-1 .0143 pounds per MMBtu heat input
SB-2 .0143 pounds per MMBtu heat input
SB 3 .0047 pounds per MMBtu heat input

The potential PM emission rate for each boiler, identified as SB-1, SB-2 and SB-3, is below the allowable emission rate for each boiler. Therefore boilers SB-2, SB-2 and SB-3 will comply with this rule.

Storage Tanks

326 IAC 8-4-3 (Petroleum Liquid Storage Tanks)
326 IAC 8-4-3 applies to all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons) containing volatile organic compounds whose true vapor pressure is greater than 10.5 kPa (1.52 psi). No petroleum liquid storage vessel at the source has a storage capacity greater than 39,000 gallons. Therefore, 326 IAC 8-4-3 is not applicable to this source.

Conclusion and Recommendation

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 March 4, 2010.

The operation of this source shall be subject to the conditions of the attached proposed MSOP Renewal No. 019-29051-00080. The staff recommends to the Commissioner that this MSOP Renewal be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Deborah Cole at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5377 or toll free at 1-800-451-6027 extension 4-5377 or dcole@idem.in.gov.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) 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

Appendix A: Emissions Calculations
Summary

Company Name: Orica USA, Inc.
Address City IN Zip: 6200 East Highway 62, Jeffersonville, Indiana 47130
Permit Number: 019-29051-00080
Reviewer: Deborah Cole

Potential to Emit of Entire Source After Issuance (tons/yr)									
Facility/Operation	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Single HAP**
Propellant Vacuum Conveying System (S-4)	0.16	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Vacuum Conveying System	0.04	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Storage Tank Baghouse (T-21)	0.56	0.56	0.56	0.0	0.0	0.0	0.0	0.0	0.0
Microballoon Storage Tank (T-29)	0.04	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.0
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.0
Ammonium Nitrate Prill Conveying System (Main Plant)	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.0
Sodium Nitrate Conveying System	2.63	2.63	2.63	0.0	0.0	0.0	0.0	0.0	0.0
Two (2) Diesel Fired Steam Boilers (SB-1 and SB-2	0.66	0.66	0.66	23.32	6.57	0.11	1.64	negligible	negligible
One (1) 150 HP Diesel Fired Boiler (SB-3)	0.32	0.32	0.32	9.08	3.20	0.05	0.80	negligible	negligible
Two (2) Emergency Generators (EG-1 and EG-2)	0.14	0.14	0.14	0.13	1.93	0.16	0.42	negligible	negligible
Storage and Process Tanks	0.00	0.00	0.00	0.0	0.0	0.05	0.0	negligible	negligible
Total PTE After Issuance	**8.48**	**8.48**	**8.48**	**32.53**	**11.70**	**0.37**	**2.86**	**negligible**	**negligible**

Appendix A: Emission Calculations
Propellant and Microballoon Systems

Company Name: Orica USA, Inc.
Address City IN Zip: 6200 East Highway 62, Jeffersonville, Indiana 47130
Permit Number: 019-29051-00080
Reviewer: Deborah Cole

Emission Unit Description [1]	Outlet Grain Loading (gr/acf)	Control Device Fan Flow Rate (acfm)	Controlled PM Emission Rate (lb/hr)	Controlled PM Emission Rate (tons/yr)[3]
Propellant Vacuum Conveying System (S-4) (Product Filtration System)	0.01	413	0.0354	0.16
Microballoon Vacuum Conveying System (Product Filtration System)	0.01	100	0.0086	0.04
Microballoon Storage Tank Baghouse (T-21)	0.020	750	0.1286	0.56
Microballoon Storage Tank [2] (T-29)	0.01	100	0.0086	0.04

Notes:

1) Includes existing permitted equipment as well as proposed new storage silo for lower density microballoon produce. No baghouse is planned for this storage silo; product will go through the same process filtrations system as the microballoo vacuum conveying system.

2) Assumes the same grain loading of conveying system, since product will go through the process's product filtration system.

3) The PTE for the propellant vacuum conveying system and the microballoon vacuum conveying system was calculated after the emission control device because each of the these units have product filtration devies which have been determined to be "integral to process".

Methodology:

Potential controlled Emissions (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

Total PM is assumed equal to $PM_{10} = PM_{2.5}$

326 IAC 6-3-2(a) Allowable Rate of Emissions

Unit ID	Process Rate (materials throughput) (lbs/hr)	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons/yr)
Propellant Pneumatic Conveying System (Product Filtration System)	9,000	4.50	11.23	49.19
Microballoon Vaccum Conveying System (Product Filtration System)	2,700	1.35	5.01	21.96
Microballoon Storage Tank Baghouse (T-21)	2,700	1.35	5.01	21.96
Microballoon Storage Tank (T-29)	2,700	1.35	5.01	21.96

Methodology

Allowable Emissions (E)(lb/hr = 4.10 (Process Weight Rate) ^ 0.67

Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr) * 8760) / 2000

Appendix A: Emissions Calculations
Ammonium and Sodium Nitrate Conveying Systems

Company Name: Orica USA, Inc.
Address City IN Zip: 6200 East Highway 62, Jeffersonville, Indiana 47130
Permit Number: 019-29051-00080
Reviewer: Deborah Cole

Emission Unit	Throughput (lbs/hr)	PM/PM10 Emission Factor (lbs/ton)[1]	PM/PM10 Emissions (lbs/hr)	PM/PM10 Emissions (tons/yr)
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	45000	0.02	0.45	1.97
Ammonium Nitrate Prill Conveying System (Main Plant)	45000	0.02	0.45	1.97
Sodium Nitrate Conveying System	60000	0.02	0.6	2.63

Methodology

[1]The documentation for the PTE for existing ammonium nitrate prill conveying referenced in Registration #: 019-16158-00080, issued on November 19, 2002 is incorrect. The correct documentation is AP-42 Chapter 8.3 - Ammonium Nitrate. The PM emission factor of 0.02 lb/ton comes from Table 8.3-2 (English Units): Emission Factors for Processes in Ammonium Nitrate Manufacturing Plants and not, as previously documented, from SCC 3-01-027-09.

PM/PM-10 emissions (lb/hr) = Process rate (lb/hr) X (1/2000 lb/ton) X (0.02 lb/ton)
PM/PM-10 emissions (tons/yr) = Process rate (lb/hr) X (1/2000 ton/lbs) X (0.02 lb/ton) X (8760 hrs/yr) X (1/2000 ton/lbs)

326 IAC 6-3-2(a) Allowable Rate of Emissions

Unit ID	Process Rate (materials throughput) (lbs/hr)	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons/yr)
Ammonium Nitrate Prill Conveying System (Rail Unloading Area)	45,000	22.5	33.02	144.62
Ammonium Nitrate Prill Conveying System (Main Plant)	45,000	22.5	33.02	144.62
Sodium Nitrate Conveying System	60,000	30.0	40.04	175.36

Methodology
Allowable Emissions (E)(lb/hr = 4.10 (Process Weight Rate) ^ 0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr) * 8760) / 2000

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
No. 2 Distillate Fuel Oil (Boilers SB-1 and SB-2)

Company Name: Orica USA, Inc.
Address City IN Zip: 6200 East Highway 62, Jeffersonville, Indiana 47130
Permit Number: 019-29051-00080
Reviewer: Deborah Cole

Heat Input Capacity* MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
10.5	657	0.5

* 2 boilers each @ 5.25 mmBtu/hr

	Pollutant				
	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.66	23.3	6.6	0.1	1.6

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Compliance with 326 IAC 6-2-4 (Particulate Emissions for Sources of Indirect Heating)

Two (2) Boilers (ID # SB-1 and SB-2)

The following calculation demonstrates compliance with the allowable PM emission limit of 0.59 lb/MMBtu for SB-1 and SB-2 respectively pursuant to 326 IAC 6-2-4:

Maximum heat input capacity (for SB-1) 10.50 MM Btu per hour (total for both boilers)

Maximum heat input capacity (for SB-2) 10.50 MM Btu per hour (total for both boilers)

SB-1 PM emissions .0143 pound per MMBTU which will comply with the allowable PM emission limit of 0.59 lb/MMBtu
SB-2 PM emissions .0143 pound per MMBTU which will comply with the allowable PM emission limit of 0.59 lb/MMBtu

Methodology

PM emissions (lb/MMBtu) = [(PM emission from natural gas boiler, tpy) * 2000 lb/ton] / [8760 hours * maximum heat input capacity, MMBtu/hr]

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
Diesel Fuel Oil (Boiler SB-3)

Company Name: **Orica USA, Inc.**
Address City IN Zip: **6200 East Highway 62, Jeffersonville, Indiana 47130**
Permit Number: **019-29051-00080**
Reviewer: **Deborah Cole**

Heat Input Capacity* MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
		0.4
5	319.71	

	Pollutant				
	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	56.8 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.320	9.1	3.2	0.054	0.80

Methodology

1 gallon of Distillate Oil has a heating value of 137,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.137 MM Btu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Compliance with 326 IAC 6-2-4 (Particulate Emissions for Sources of Indirect Heating)

The following calculation demonstrates compliance with the allowable PM emission limit of 0.53 lb/MMBtu for SB-3 pursuant to 326 IAC 6-2-4:

Maximum heat input capacity: 15.50 MM Btu per hour (total for both boilers)

SB-3 PM emissions **.0047** **lb/MMBTU which** **will comply with the allowable PM emission limit of 0.53 lb/MMBtu**

Methodology

PM emissions (lb/MMBtu) = [(PM emission from natural gas boiler, tpy) * 2000 lb/ton] / [8760 hours * maximum heat input capacity, MMBtu/hr]

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Emergency Generators (EG-1 and EG-2)

Company Name: **Orica USA, Inc.**
Address City IN Zip: **6200 East Highway 62, Jeffersonville, Indiana 47130**
Permit Number: **019-29051-00080**
Reviewer: **Deborah Cole**

Potential Emissions calculated based on 8760 hours per year.

Generator Output Capacity*
HP

249

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/HP-hr	2.20E-03	2.20E-03	2.05E-03	0.031	2.51E-03	6.68E-03
Potential Emission in tons/yr	2.40	2.40	2.24	33.81	2.74	7.29

Potential Emissions calculated based on 500 hours per year for emergency generators

Generator Output Capacity
HP

249

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	2.20E-03	2.20E-03	2.05E-03	0.031	2.51E-03	6.68E-03
Potential Emission in tons/yr	0.137	0.137	0.128	1.930	0.156	0.416

Methodology
* Total power output capacity for two emergency generators (EG-1 = 134 hp and EG-2 = 115 hp)
100 kVA = 100 kW, 1 kW = 1.34 hp
Emission Factors are from AP42 (Fifth edition, October 1996), Table 3.3-1
Potential Emission (tons/yr) = [Power output rate (hp) x Emission Factor (lb/hp-hr)] * 8760 hr/yr / (2,000 lb/ton)
Actual Emission (tons/yr) = [Power Output rate (hp) x Emission Factor (lb/hp-hr)] * 500 hr/yr / (2,000 lb/ton)

Appendix A: Emission Calculations
Storage and Process Tanks VOC Emissions - Maximum PTE

Company Name: Orica USA, Inc.
Address City IN Zip: 6200 East Highway 62, Jeffersonville, Indiana 47130
Permit Number: 019-29051-00080
Reviewer: Deborah Cole

Tank Number	Product Stored	Losses (Pounds per Year) Breathing	Working	Total VOC lbs/yr	Losses (Tons per Year) Breathing	Working	Total VOC Tons/yr
T-26[1]	Diesel	1.66	0.56	2.22	8.30E-04	2.80E-04	1.11E-03
T-1	Explosives emulsions	Total VOC working and breathing losses = 0.05 tons per year [2]					
T-2	Explosives emulsions						
T-4	No. 2 fuel oil						
T-5	Explosives emulsions						
T-6	Explosives emulsions						
T-7	Explosives emulsions						
T-8	Explosives emulsions						
T-9	Explosives emulsions						
T-10	Explosives emulsions						
T-13	Oil blend						
T-14	Oil blend						
T-16	Oil blend						
T-18	Oil blend						
T-19	No. 2 fuel oil						
T-20	No. 2 fuel oil						
T-3	Ammonium nitrate prills	No regulated air pollutant emissions [3]					
T-11	Ammonium nitrate solution						
T-12	Ammonium nitrate solution						
T-15	Ammonium nitrate solution						
T-17	Ammonium nitrate solution						
T-21	Microballoons	Only PM/PM10 emissions (Please refer page 2 of 7)					
T-22	Ammonium nitrate prills	No regulated air pollutant emissions [3]					
T-23	Ammonium nitrate prills						
T-24	Ammonium nitrate prills						
T-25	Ammonium nitrate prills						
T-27 [1]	Ammonium nitrate solution						
T-28 [1]	Ammonium nitrate solution						
Total VOC Emissions (tons per year)		**5.11E-02**					

Notes:

(1) Storage tanks, identified as T-26, T-27 and T-28, were constructed in 2005. All other storage tanks are operating under Registration no. 019-16158-00080, issued on November 19, 2002. VOC losses from T-26 are based on Tanks 4.0 analysis and is based on the estimated maximum annual throughput for each tank.

(2) Total VOC working and breathing losses for existing storage tanks is based on Tanks 4.0 analysis performed with Registration no. 019-16158-00080, issued on November 19, 2002 and is based on the estimated maximum annual throughput for each tank.

(3) Ammonium nitrate is not a regulated air pollutant.

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:
Chris Cruise
Orica USA, Inc
6200 E Hwy 62, Bldg 3019
Jeffersonville, IN 47130-2251

DATE: August 3, 2010

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

SUBJECT: Final Decision
MSOP
019-29051-00080

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.

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

«Date»

TO: Charlestown Clark Co public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Orica USA, Inc**

Permit Number: **019-29051-00080**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 08/03/2010 Orica USA, Inc 019-29051-00080 (final)		
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING

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		Chris Cruise Orica USA, Inc 6200 E Hwy 62, Bldg 3019 Jeffersonville IN 47130-2251 (Source CAATS)									
2		Tracey Ackeman Plant Mgr Orica USA, Inc 6200 E hwy 62, Bldg 3019 Jeffersonville IN 47130-2251 *(RO CAATS)*									
3		Ms. Rhonda England 17213 Persimmon Run Rd Borden IN 47106-8604 *(Affected Party)*									
4		Charlestown Clark Co public Library 51 Clark Rd Charlestown IN 47111-1997 *(Library)*									
5		Ms. Betty Hislip Silver Lakes Trailer Pk 13131 Sunnybrook Dr Memphis IN 47143-9672 *(Affected Party)*									
6		Mrs. Sandy Banet 514 Haddox Rd Henryville IN 47126 *(Affected Party)*									
7		Jeffersonville City Council and Mayors Office 500 Quarter Master Jeffersonville IN 47130 *(Local Official)*									
8		Mr. Robert Bottom Paddlewheel Alliance P.O. Box 35531 Louisville KY 40232-5531 *(Affected Party)*									
9		Becky & Brian Cole 651 North Grange Hall Rd. Madison IN 47250 *(Affected Party)*									
10		Clark County Board of Commissioners 501 E. Court Avenue Jeffersonville IN 47130 *(Local Official)*									
11		Clark County Health Department 1320 Duncan Avenue Jeffersonville IN 47130-3723 *(Health Department)*									
12		Amy Osborn Smith Management Group 1860 B Williamson Court Louisville KY 40223 *(Consultant)*									
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

FACSIMILIE OF PS Form 3877