



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: June 4, 2008

RE: Meese Orbitron Dunne Company / 077-26373-00020

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

Notice of Decision: Approval - Registration

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 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days 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
FN-REGIS.dot 1/2/08



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REGISTRATION OFFICE OF AIR QUALITY

**Meese Orbitron Dunne Company
1745 Cragmont Street
Madison, Indiana 47250**

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

Registration No. 077-26373-00020	
Issued by/Original Signed By: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 4, 2008

SECTION A

SOURCE SUMMARY

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

A.1 General Information

The Registrant owns and operates a stationary rotational molding and powder coating facility.

Source Address:	1745 Cragmont Street, Madison, IN 47250
Mailing Address:	1745 Cragmont Street, Madison, IN 47250
General Source Phone Number:	(812) 273-1008
SIC Code:	3089
County Location:	Jefferson County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Three (3) rotational molding lines, constructed in 1988, 1995, and 1998; identified as S1, S2, and S3 respectively, each with a maximum capacity of 250 pounds per hour (lbs/hr) of polyethylene, each using a 5.6 million British thermal units per hour (MMBtu) natural-gas fired recirculating hot air oven; exhausting to stacks S1, S2, and S3.
- (b) Four (4) rotational molding lines, constructed in 1997, 2003, and 2006; identified as S4, S5, S6, and S7 respectively, each with a maximum capacity of 120 lbs/hr of polyethylene, each using a 2 MMBtu natural-gas fired recirculating hot air oven; exhausting to stacks S4, S5, S6, and S7.
- (c) One (1) rotational molding line, constructed in 1994; identified as S8, with a maximum capacity of 300 lbs/hr of polyethylene, using a 4 MMBtu natural-gas fired recirculating hot air oven; exhausting to stack S8.
- (d) One (1) electrostatic spray coating booth, constructed in 1997; identified as S9, with a maximum capacity of 10 lbs/hr of polyester powder, using a 3.5 MMBtu natural gas fired recirculating hot air oven; exhausting to stack S9.
- (e) One (1) air-assisted spray coating booth, constructed in 1986; identified as SP1, with a maximum throughput of 50 units per hour, with particulate controlled by disposable filters; exhausting through stack S10.
- (f) One (1) grinding booth, constructed in 1988; identified as GR1, with a maximum capacity of 350 lbs/hr, with particulate controlled by two cyclone separators and a fabric filter in series (which are considered integral to the grinding operations); exhausting within the building.
- (g) Two (2) metal inert gas welding booths, both constructed in 1986; identified as W1 and W2, each with a maximum electrode consumption rate of 0.725 lbs/hr; exhausting within the building.
- (h) Two (2) closed tumbler mixing drums, constructed in 1988 and 2000; identified as M1 and M2 respectively, each with a maximum capacity of 600 lbs/hr; exhausting within the building.
- (i) Three (3) raw material storage silos, constructed in 1994, 1994, and 1999; identified as SS1, SS2, and SS3 respectively, each with a maximum capacity of 55,000 pounds, with particulate

controlled by a bag filter, exhausting to ambient air.

- (j) Enclosed auger conveying system for conveying polyethylene raw materials.

SECTION B GENERAL CONDITIONS

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

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

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

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

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

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

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

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

- (a) All terms and conditions of permits established prior to Registration No. 077-26373-00020 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

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

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

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

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

Indianapolis, IN 46204-2251

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

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

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

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

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

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

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

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

SECTION D.1

OPERATION CONDITIONS

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

- (a) Three (3) rotational molding lines, constructed in 1988, 1995, and 1998; identified as S1, S2, and S3 respectively, each with a maximum capacity of 250 pounds per hour (lbs/hr) of polyethylene, each using a 5.6 million British thermal units per hour (MMBtu) natural-gas fired recirculating hot air oven; exhausting to stacks S1, S2, and S3.
- (b) Four (4) rotational molding lines, constructed in 1997, 2003, and 2006; identified as S4, S5, S6, and S7 respectively, each with a maximum capacity of 120 lbs/hr of polyethylene, each using a 2 MMBtu natural-gas fired recirculating hot air oven; exhausting to stacks S4, S5, S6, and S7.
- (c) One (1) rotational molding line, constructed in 1994; identified as S8, with a maximum capacity of 300 lbs/hr of polyethylene, using a 4 MMBtu natural-gas fired recirculating hot air oven; exhausting to stack S8.

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

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

D.1.1 326 IAC 6-3-2 (Particulate Emissions Limitations)

- (a) Pursuant to 326 IAC 6-3-2(e), particulate emissions from each molding line S1, S2, and S3, shall not exceed 1.02 lbs/hr when operating at a process weight rate of 250 lbs/hr.
- (b) Pursuant to 326 IAC 6-3-2(e), particulate emissions from each molding line S4, S5, S6, and S7 shall not exceed 0.62 lbs/hr when operating at a process weight rate of 120 lbs/hr.
- (c) Pursuant to 326 IAC 6-3-2(e), particulate emissions from molding line S8 shall not exceed 1.15 lbs/hr when operating at a process weight rate of 300 lbs/hr.

Interpolation of the data for process weight rate up to sixty thousand (60,000) pounds per hour were 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

SECTION D.2

OPERATION CONDITIONS

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

- (d) One (1) electrostatic spray coating booth, constructed in 1997; identified as S9, with a maximum capacity of 10 lbs/hr of polyester powder, with particulate controlled by disposable filters; using a 3.5 MMBtu natural gas fired recirculating hot air oven; exhausting to stack S9.
- (e) One (1) air-assisted spray coating booth, constructed in 1986; identified as SP1, with a maximum throughput of 50 units per hour, with particulate controlled by disposable filters; exhausting through stack S10.

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

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

D.2.1 326 IAC 6-3-2 (Particulate Emissions Limitations)

Pursuant to 326 IAC 6-3-2, particulate from the surface coating booths identified as S9 and SP1 shall be controlled by dry particulate filters, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

SECTION D.3

OPERATION CONDITIONS

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

- (f) One (1) grinding booth, constructed in 1988; identified as GR1, with a maximum capacity of 350 lbs/hr, with particulate controlled by two cyclone separators and a fabric filter in series (which are considered integral to the grinding operations); exhausting within the building.
- (g) Two (2) metal inert gas welding booths, both constructed in 1986; identified as W1 and W2, each with a maximum electrode consumption rate of 0.725 lbs/hr; exhausting within the building.
- (h) Two (2) closed tumbler mixing drums, constructed in 1988 and 2000; identified as M1 and M2 respectively, each with a maximum capacity of 600 lbs/hr; exhausting within the building.
- (i) Three (3) raw material storage silos, constructed in 1994, 1994, and 1999; identified as SS1, SS2, and SS3 respectively, each with a maximum capacity of 55,000 pounds, with particulate controlled by a bag filter, exhausting to ambient air.
- (j) Enclosed auger conveying system for conveying polyethylene raw materials.

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

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

D.3.1 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2(e), when operating at a process weight rate of 350 lbs/hr, the allowable rate of particulate emissions from the grinding operation shall not exceed 1.28 lbs/hr.
- (b) Pursuant to 326 IAC 6-3-2(e), when operating at a process weight rate of 600 lbs/hr, the allowable rate of particulate emissions from the two tumblers shall not exceed 1.83 lbs/hr each.
- (c) Pursuant to 326 IAC 6-3-2(e), when operating at a process weight rate of 114.16 lbs/hr, the allowable rate of particulate emissions from the storage and handling facilities, identified as SS1 through SS3, and the enclosed auger conveying system for conveying polyethylene raw materials, shall not exceed 0.60 lbs/hr total.

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:

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

Compliance Determination Requirements

D.3.2 Particulate Matter (PM)

- (a) The cyclone dust collection system, consisting of two cyclone separators and one fabric filter in series shall be in operation and control emissions from the grinding booth identified as GR1 at all times the emission unit is in operation.
- (b) Except as otherwise provided by statute, rule, or this permit, the baghouses for PM control shall be in operation and control emissions at all times the three (3) raw material storage silos are in operation.

- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements

D.3.3 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency.

D.3.4 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency.
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency.

Bag failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

**REGISTRATION
ANNUAL NOTIFICATION**

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

Company Name:	Meese Orbitron Dunne Company
Address:	1745 Cragmont Street
City:	Madison, Indiana 47250
Phone Number:	(812) 273-1008
Registration No.:	077-26373-00020

- I hereby certify that Meese Orbitron Dunne Company is : still in operation.
 no longer in operation.
- I hereby certify that Meese Orbitron Dunne Company is : in compliance with the requirements of Registration No. 077-26373-00020.
 not in compliance with the requirements of Registration No. 077-26373-00020.

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

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

Noncompliance:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Description and Location

Source Name: Meese Orbitron Dunne Company
Source Location: 1745 Cragmont Street, Madison, Indiana 47250
County: Jefferson
SIC Code: 3089
Registration (or Exemption) No.: 077-26373-00020
Permit Reviewer: Jason R. Krawczyk

On April 4, 2008 the Office of Air Quality (OAQ) received an application from Meese Orbitron Dunne Company related to the operation of an existing rotational molding plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Jefferson County.

Pollutant	Designation
SO ₂	Cannot be classified.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, 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 Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for the Madison Twp for PM _{2.5} . The remainder of Jefferson County is unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) 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. Jefferson 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) **PM2.5**
Jefferson County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) **Other Criteria Pollutants**
Jefferson County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM, NO₂, and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Meese Orbitron Dunne Company on April 2, 2008, relating to the stationary rotational molding and powder coating facility. Meese Orbitron Dunne Company is currently CWOP/OWOP and applying for a first time permit.

Permitted Emission Units and Pollution Control Equipment

There are no permitted emission units operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission unit(s):

- (a) Three (3) rotational molding lines, constructed in 1988, 1995, and 1998; identified as S1, S2, and S3 respectively, each with a maximum capacity of 250 pounds per hour (lbs/hr) of polyethylene, each using a 5.6 million British thermal units per hour (MMBtu) natural-gas fired recirculating hot air oven; exhausting to stacks S1, S2, and S3.
- (b) Four (4) rotational molding lines, constructed in 1997, 2003, and 2006; identified as S4, S5, S6, and S7 respectively, each with a maximum capacity of 120 lbs/hr of polyethylene, each using a 2 MMBtu natural-gas fired recirculating hot air oven; exhausting to stacks S4, S5, S6, and S7.
- (c) One (1) rotational molding line, constructed in 1994; identified as S8, with a maximum capacity of 300 lbs/hr of polyethylene, using a 4 MMBtu natural-gas fired recirculating hot air oven; exhausting to stack S8.
- (d) One (1) electrostatic spray coating booth, constructed in 1997; identified as S9, with a maximum capacity of 10 lbs/hr of polyester powder, with particulate controlled by disposable filters; using a 3.5 MMBtu natural gas fired recirculating hot air oven; exhausting to stack S9.
- (e) One (1) air-assisted spray coating booth, constructed in 1986; identified as SP1, with a maximum

throughput of 50 units per hour, with particulate controlled by disposable filters; exhausting through stack S10.

- (f) One (1) grinding booth, constructed in 1988; identified as GR1, with a maximum capacity of 350 lbs/hr, with particulate controlled by two cyclone separators and a fabric filter in series; exhausting within the building.
- (g) Two (2) metal inert gas welding booths, both constructed in 1986; identified as W1 and W2, each with a maximum electrode consumption rate of 0.725 lbs/hr; exhausting within the building.
- (h) Two (2) closed tumbler mixing drums, constructed in 1988 and 2000; identified as M1 and M2 respectively, each with a maximum capacity of 600 lbs/hr; exhausting within the building.
- (i) Three (3) raw material storage silos, constructed in 1994, 1994, and 1999; identified as SS1, SS2, and SS3 respectively, each with a maximum capacity of 55,000 pounds, with particulate controlled by a bag filter, exhausting to ambient air.
- (j) Enclosed auger conveying system for conveying polyethylene raw materials.

“Integral Part of the Process” Determination

The applicant has submitted the following information to justify why the cyclone dust collection system, consisting of two cyclone separators and one fabric filter in series, should be considered an integral part of the rotational molding operation's regrind process:

- (a) The operation of the cyclone dust collection system results in a positive net economic effect because it enables the reclamation of fifteen pounds per hour of polyethylene that would otherwise be disposed of. The initial cost of the cyclone was assessed at 25,000 dollars and this reclamation process is estimated to save Meese Orbitron Dunne Company 15,000 dollars per year in polyethylene costs.

IDEM, OAQ has evaluated the information submitted and agrees that the cyclone dust collection system should be considered an integral part of the regrind process. This determination is based on the fact that the operation of the cyclone dust collection system results in a positive net economic effect. Therefore, the permitting level will be determined using the potential to emit after the cyclone dust collection system. Operating conditions in the proposed permit will specify that these cyclone separators and fabric filter shall operate at all times when the regrind process is in operation.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Registration

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.

Process/Emission Unit	Potential To Emit of the Entire Source (tons/year)							
	PM	PM10 *	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Combustion	0.27	1.08	0.08	14.15	0.78	11.88	0.27	0.25 Hexane
Molding	0.44	0.44	-	-	0.21	0.13	negl.	negl.
Air-Assisted Spray Coating	5.37	5.37	-	-	0.13	-	negl.	negl.
Electrostatic Spray Coating	4.38	4.38	-	-	0.01	-	negl.	negl.
Grinding	1.34	1.34	-	-	-	-	negl.	negl.
Welding	0.03	0.03	-	-	-	-	negl.	negl.
Mixing	1.05	1.05	-	-	-	-	negl.	negl.
Storage and Handling	0.20	0.20	-	-	-	-	negl.	negl.
Total PTE of Entire Source	13.07	13.87	0.08	14.15	1.12	12.02	0.27	0.25 Hexane
Exemptions Levels	5	5	10	10	10	25	2.5	1
Registration Levels	25	25	25	25	25	100	-	-
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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.								

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10, and NO_x are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration will be issued.
- (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.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of New Source Performance Standards (NSPS) for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines, 40 CFR 60, Subpart TTT, is not included in this permit, since this surface coating is not for plastic parts for business machines.
- (b) There are no other New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products, 40 CFR 63.4481, Subpart PPPP (326 IAC 20-81), are not included in the permit, since the surface coating facility is located at an area source.
- (d) The requirements of the NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations, 40 CFR 63.11169, Subpart HHHHHH, is not included in the permit, since the surface coating facility does not do paint stripping operations using methylene chloride, spray application of coating to motor vehicles and mobile equipment, or spray application of coatings to a plastic and/or metal substrate where the coatings contain any target HAP.
- (e) 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)

- (f) 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

The following state rules are applicable to the source:

- (a) 326 IAC 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 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.
- (c) 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.
- (d) 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 forty percent (40%) 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.

- (e) 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

Molding

- (g) 326 IAC 6-3-2 (Particulate Emissions Limitations)
The rotational molding lines identified as S4, S5, S6, and S7 at this source each have a maximum process rate of 120 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from each molding line shall not exceed 0.62 lbs/hr.

The rotational molding lines identified as S1, S2, and S3 at this source each have a maximum process rate of 250 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from each molding line shall not exceed 1.02 lbs/hr.

The rotational molding line identified as S8 at this source has a maximum process rate of 300 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from this molding line shall not exceed 1.15 lbs/hr.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

Surface Coating

- (h) 326 IAC 6-3-2 (Particulate Emissions Limitations)
Pursuant to 326 IAC 6-3-2, particulate from the surface coating booths identified as S9 and SP1 shall be controlled by dry particulate filters, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

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

This source is not subject to the requirements of 326 IAC 8-1-6, because it does not have potential to emit 25 tons or more per year VOC. Therefore, 326 IAC 8-1-6 does not apply.

- (j) 326 IAC 8-2 (Surface Coating Emission Limitations)
The source is not subject to the requirements of 326 IAC 8-2, because it does not perform any operations identified within 326 IAC 8-2. Therefore, 326 IAC 8-2 does not apply.
- (k) 326 IAC 20-81-1 (Surface Coating of Plastic Parts and Products)
The source is not subject to the requirements of 326 IAC 20-81-1 because the source does not have the potential to emit greater than 10 tons per year of a single HAP or greater than or 25 tons per year of combined HAPs. Therefore, 326 IAC 20-81-1 does not apply.

Grinding

- (l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The grinding operation at this source has a maximum process rate of 350 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from this grinding operation shall not exceed 1.28 lbs/hr.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

Welding

- (m) 326 IAC 6-3-2 (Particulate Emissions Limitations)
The welding operations are not subject to the requirements of 326 IAC 6-3-2, because they use less than six hundred twenty-five (625) pounds of rod or wire per day.

Mixing

- (n) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e), when operating at a process weight rate of six hundred (600) pounds per hour, the allowable rate of particulate emission from the two tumblers is 1.83 lbs/hr each.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

Natural Gas Combustion

- (o) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired combustion units are not subject to 326 IAC 6-2 because they are not sources of indirect heating.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The natural gas-fired combustion units are not subject to the requirements of 326 IAC 7-1.1, because the potential sulfur dioxide emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour.

Storage/Handling

- (p) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e), the particulate emission from the storage and handling facilities, identified as SS1 through SS3, and the enclosed auger conveying system for conveying polyethylene raw materials, shall not exceed 0.60 lbs/hr.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

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 April 3, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 077-26373-00020. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCM 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5175 or toll free at 1-800-451-6027 extension 4-5175.
- (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
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Pit ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
32.3	282.9
Units S1 - S9	

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.3	1.1	0.1	14.1	0.8	11.9

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 3 for HAPs emissions calculations.

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

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Pit ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.971E-04	1.698E-04	1.061E-02	2.547E-01	4.810E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.074E-05	1.556E-04	1.981E-04	5.376E-05	2.971E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations
VOC, CO, and PM/PM10 Emissions
From the Molding Operation**

Company Name: Meese Orbitron Dunne Co.

Address: 1745 Cragmont Street, Madison, IN 47250

Registration: 077-26373-00020

Plant ID: 077-00020

Reviewer: Jason R. Krawczyk

Date: May 20, 2008

Emission Unit	Max. Throughput Rate (lbs/hr)	VOC		CO		PM/PM10			326 IAC 6-3-2(e)		
		VOC Emission Factor* (lbs/ton)	PTE of VOC (tons/yr)	CO Emission Factor** (lbs/ton)	PTE of CO (tons/yr)	PM/PM10 Emission Factor* (lbs/ton)	PTE of PM/PM10 (lbs/hr)	PTE of PM/PM10 (tons/yr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Allowable Emissions (tons/yr)
S1	250.0	0.0614	3.36E-02	0.04	2.19E-02	0.1302	1.63E-02	7.13E-02	0.125	1.02	4.46
S2	250.0	0.0614	3.36E-02	0.04	2.19E-02	0.1302	1.63E-02	7.13E-02	0.125	1.02	4.46
S3	250.0	0.0614	3.36E-02	0.04	2.19E-02	0.1302	1.63E-02	7.13E-02	0.125	1.02	4.46
S4	120.0	0.0614	1.61E-02	0.04	1.05E-02	0.1302	7.81E-03	3.42E-02	0.06	0.62	2.73
S5	120.0	0.0614	1.61E-02	0.04	1.05E-02	0.1302	7.81E-03	3.42E-02	0.06	0.62	2.73
S6	120.0	0.0614	1.61E-02	0.04	1.05E-02	0.1302	7.81E-03	3.42E-02	0.06	0.62	2.73
S7	120.0	0.0614	1.61E-02	0.04	1.05E-02	0.1302	7.81E-03	3.42E-02	0.06	0.62	2.73
S8	300.0	0.0614	4.03E-02	0.04	2.63E-02	0.1302	1.95E-02	8.55E-02	0.15	1.15	5.04
Total	1,530		0.21		0.13			0.44			

Notes:

*VOC and PM emission factors are from Fact Sheet #9847 (revised 11/05) from the Michigan Department of Environmental Quality. There are no emission factors for the type of process in AP-42 or FIRE. Assume PM 10 emissions are equal to PM emissions.

** CO emission factor is based upon an article in *Advances in Polymer Technology* entitled "Volatile Emissions During Thermoplastics Processing - A Review".

*** Based on the calculations, these molding molding lines comply with 326 IAC 6-3-2(e).

Methodology:

$PTE \text{ (tons/yr)} = \text{Max. Throughput Rate (lbs/hr)} \times \text{Emission Factor (lbs/ton)} \times 1 \text{ ton}/2000 \text{ lbs} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$

**Appendix A: Emissions Calculations
VOC and Particulate From Surface Coating Operations**

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Plt ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

Emission Unit	Material	Density (Lb/Gal)	Weight % VOC	Weight % Solids	Maximum Throughput (gal/hour)	Pounds VOC per gallon of coating	Transfer Efficiency	PTE VOC (ton/yr)	PTE PM/PM10 (ton/yr)
S-9	POWDURA	14.29	0.1%	99.9%	0.7	0.01	90%	0.03	4.38
							Total	0.03	4.38

METHODOLOGY

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

PTE VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) x Maximum Throughput (gal/hr) x 8,760 hr/yr x 1 ton/2,000 lbs

PTE Particulate (ton/yr) = Density (lb/gal) x Weight % Solids x Maximum Throughput (gal/hour) x (1-Transfer efficiency) x 8,760 hrs/yr x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Particulate emissions
Grinding Booth

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Plt ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

Grinding

Particulate Collected:

15.00

 lbs/hr
 Control Efficiency:

98.0%

	Pollutant	
	PM	PM-10
Uncontrolled Emissions (lbs/hr)	15.31	15.31
Uncontrolled Emissions (tons/year)	67.0	67.0
Controlled Emissions (lbs/hr)*	0.31	0.31
Controlled Emissions (tons/year)	1.34	1.34

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

Process Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions* (lbs/hr)	Allowable Emissions (tons/yr)
350	0.18	1.28	5.6

Notes:

* Based on the calculations, this grinding booth complies with 326 IAC 6-3-2(e).

Methodology

Uncontrolled emissions = (amount collected * (8760/2000)) / (control efficiency)

Controlled emissions = (uncontrolled emissions) * (1 - control efficiency)

Allowable Emissions = 4.10(Process Weight Rate)^{0.67}

Appendix A: Emissions Calculations
Welding

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Pit ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)**	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Metal Inert Gas (MIG)(carbon steel)	2	0.725	0.0055	0.0005			0.008	0.001	0.000	0	0.001
EMISSION TOTALS											
Potential Emissions lbs/hr							0.01				0.00
Potential Emissions lbs/day							0.19				0.02
Potential Emissions tons/year							0.03				0.00

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

** Maximum electrode consumption per station calculated from a total of 2900 pounds rods used per year and an operation schedule of 2000 hours per year.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lb

**Appendix A: Emissions Calculations
Mixing Load-In**

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Plt ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

Facility	Capacity lbs/hr	PM/PM10 Emission Factor lbs/ton	326 IAC 6-2-3(e) Allowable PM Emission Rate lbs/hr*	Potential to emit PM/PM10 (Uncontrolled) lbs/hr*	Potential to emit PM/PM10 (Uncontrolled) tons/yr
Mixing Load-In operations Tumbler (2)	600	0.8	1.83	0.24	1.05
		Totals	1.83	0.24	1.05

Notes:

*Based on the calculations, this mixing operation complies with 326 IAC 6-3-2(e).
Emission Factor from AP-42 Chapter 6.2.2, Table 6.6.2-1 (0.4 g/kg) = 0.8 lb/ton

Methodology:

Potential to emit of PM/PM10 (lbs/hr)(Uncontrolled) = PM/PM10 emission factor (lbs/ton)*Capacity (lbs/hr) * 1 ton / 2000 pounds

**Appendix A: Emissions Calculations
Storage and Handling**

Company Name: Meese Orbitron Dunne Co.
Address City IN Zip: 1745 Cragmont Street, Madison, IN 47250
Permit Number: 077-26373-00020
Plt ID: 077-00020
Reviewer: Jason R. Krawczyk
Date: May 20, 2008

Facility	Capacity lbs/hr*	PM/PM10 Emission Factor lbs/ton	326 IAC 6-2-3(e) Allowable PM Emission Rate lbs/hr**	Potential to emit PM/PM10 (Uncontrolled) lbs/hr**	Potential to emit PM/PM10 (Uncontrolled) tons/yr
Raw material receiving and handling Silos 1-3	114.16	0.8	0.60	0.05	0.20
		Totals	0.60	0.05	0.20

Notes:

*Capacity is calculated from an estimated 1,000,000 pound throughput per year and 8760 hour operating schedule.

**Based on the calculations, these storage and handling operations comply with 326 IAC 6-3-2(e).

Emission Factor from AP-42 Chapter 6.2.2, Table 6.6.2-1 (0.4 g/kg) = 0.8 lb/ton

Methodology: