



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: February 16, 2011

RE: DelReel Tech, LLC / 019-30134-00133

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

Notice of Decision – Approval

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

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

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



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February 16, 2011

Adam Rosenberg
DelReel Tech LLC
3478 Marble Hill Road
Nabb, Indiana 47147

Re: 019-30134-00133
Third Registration Notice-Only Change to
R019-26510-00133

Dear Mr. Rosenberg:

DelReel Tech LLC was issued a Registration No. R019-26510-00133 on October 1, 2008 for a stationary copper recovery facility located at 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147. On January 20, 2011, the Office of Air Quality (OAQ) received an application from the source relating to construction and operation of an additional Liquefied Petroleum Gas (LPG) fired burner oven, identified as Oven 4. The attached calculations summary (page 1) shows the increased potential to emit, which remains below the registration thresholds.

The addition of this unit to the registration is considered a notice-only change, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified in 326 IAC 2-5.5-6(d)(10) and 326 IAC 2-5.5-6(d)(12), respectively. The uncontrolled/unlimited potential to emit of the entire source will continue to be within the threshold levels specified in 326 IAC 2-5.5-1(b)(1). No new state rules are applicable to this source. There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) or National Emission standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this notice-only change.

Pursuant to 326 IAC 2-5.5-6, the registration is hereby revised as follows, with deleted language as ~~strikeouts~~ and new language **bolded**:

A.3 Emission Units and Pollution Control Equipment Summary

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

- (a) ~~Three (3)~~ **Four (4)** Liquefied Petroleum Gas (LPG) fired burn off ovens, identified as Oven 1, Oven 2, and Oven 3, ~~and Oven 4 constructed in 2000~~, each with a maximum throughput of 380 pounds of coated wire per hour, each equipped with a LPG afterburner as a control, with capacities as described below:
- (1) Oven 1, **constructed in 2000**: Primary Burner with a maximum capacity of 0.794 MMBtu/hr and After Burner with a maximum capacity of 1.290 MMBtu/hr (total capacity is 2.084 MMBtu/hr).
 - (2) Oven 2, **constructed in 2000**: Primary Burner with a maximum capacity of 0.8 MMBtu/hr and After Burner with a maximum capacity of 1.08 MMBtu/hr (total capacity is 1.88 MMBtu/hr).
 - (3) Oven 3, **constructed in 2000**: Primary Burner with a maximum capacity of 0.862 MMBtu/hr and After Burner with a maximum capacity of 1.666 MMBtu/hr (total capacity is 2.528 MMBtu/hr).

- (4) **Oven 4, approved for construction in 2011: Primary Burner with maximum capacity of 0.815 MMBtu/hr and After Burner with a maximum capacity of 1.080 MMBtu/hr (total capacity is 1.895 MMBtu/hr).**

...

SECTION D.1 OPERATION CONDITIONS respectively

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

- (a) ~~Three (3)~~ **Four (4)** Liquefied Petroleum Gas (LPG) fired burn off ovens, identified as Oven 1, Oven 2, ~~and~~ **Oven 3, and Oven 4 constructed in 2000**, each with a maximum throughput of 380 pounds of coated wire per hour, each equipped with a LPG afterburner as a control, with capacities as described below:
- (1) ~~Oven 1, constructed in 2000:~~ **Oven 1, constructed in 2000:** Primary Burner with a maximum capacity of 0.794 MMBtu/hr and After Burner with a maximum capacity of 1.290 MMBtu/hr (total capacity is 2.084 MMBtu/hr).
- (2) ~~Oven 2, constructed in 2000:~~ **Oven 2, constructed in 2000:** Primary Burner with a maximum capacity of 0.8 MMBtu/hr and After Burner with a maximum capacity of 1.08 MMBtu/hr (total capacity is 1.88 MMBtu/hr).
- (3) ~~Oven 3, constructed in 2000:~~ **Oven 3, constructed in 2000:** Primary Burner with a maximum capacity of 0.862 MMBtu/hr and After Burner with a maximum capacity of 1.666 MMBtu/hr (total capacity is 2.528 MMBtu/hr).
- (4) **Oven 4, approved for construction in 2011: Primary Burner with maximum capacity of 0.815 MMBtu/hr and After Burner with a maximum capacity of 1.080 MMBtu/hr (total capacity is 1.895 MMBtu/hr).**

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

A.1 General Information

The Registrant owns and operates a stationary copper recovery facility.

Source Address: 3478 Marble Hill Rd., Building 3, Nabb, IN 47147
Mailing Address: ~~3478 Marble Hill Rd., Building 3, Nabb, IN 47147~~
General Source Phone Number: 812-293-4786
SIC Code: 5093
County Location: Clark County
Source Location Status: Attainment for 8-hour ozone standard
Nonattainment for PM 2.5 standard
Attainment for all other criteria pollutants
Source Status: Registration

...

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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.
If you have any questions on this matter, please contact Duane Van Laningham, at (800) 451-6027, press
0 and ask for Duane Van Laningham or extension 4-6544, or dial (317) 234-6544.

Sincerely,



Alfred C. Dumauval, Ph. D., Section Chief
Permits Branch
Office of Air Quality

ACD/dv

Attachment: Revised Registration
Revised Calculations

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



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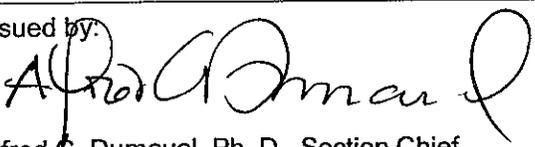
REGISTRATION OFFICE OF AIR QUALITY

DeReel Tech LLC
3478 Marble Hill Road, Building 3
Nabb, IN 47147

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. 019-26510-00133	
Original signed by: Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: October 1, 2008

First Registration Notice-Only Change No. 019-28144-00133, issued August 3, 2009
Second Registration Notice-Only Change No. 019-29084-00133 issued March 30, 2010

Third Registration Notice-Only Change No. 019-30134-00133	
Issued by:  Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: February 16, 2011

SECTION A

SOURCE SUMMARY

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

A.1 General Information

The Registrant owns and operates a stationary copper recovery facility.

Source Address:	3478 Marble Hill Rd., Building 3, Nabb, IN 47147
General Source Phone Number:	812-293-4786
SIC Code:	5093
County Location:	Clark County
Source Location Status:	Attainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Registration

A.2 Source Definition

The following plants exist at this location:

- (a) DeReelTech LLC, located at 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147, Plant ID: 019-00133; and
- (b) INTL SieraMet, LLC, located at 3478 Marble Hill Road, Building 4, Nabb, Indiana 47147, Plant ID: 019-00135.

On June 5, 2009, IDEM determined that DeReelTech LLC and INTL SieraMet, LLC should not be considered one "source" as defined in 326 IAC 1-2-73, because they do not meet all three of the following criteria:

- (1) the plants must have common ownership/control;

The owner of DeReelTech LLC owns less than half (44%) of INTL SieraMet, LLC, and the two plants have different management. Therefore, the two plants are not under common ownership or control.

- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other;

The plants have two different two-digit SIC Codes. The two-digit code for DeReelTech LLC is 50, while the two-digit code for INTL SieraMet, LLC is 34. A plant is considered a support facility if at least 50% of its total output is dedicated to another plant. At the time of construction, no product from DeReelTech LLC will be sent to INTL SieraMet, LLC; however, it is possible that some scrap material might be sold to INTL SieraMet, LLC from DeReelTech LLC in the future.

- (3) The plants must be located on contiguous or adjacent properties.

The two plants are located on contiguous properties. DeReelTech LLC, Building 3 and INTL SieraMet, LLC, Building 4, are located at the same address 3478 Marble Hill Road, Nabb, Indiana 47147.

These plants are located on contiguous properties. However, these plants are not under common ownership or control, have different two-digit SIC codes, and do not serve as support facilities to each other. Therefore, IDEM, OAQ has determined that these plants will not be considered one (1) source, as defined by 326 IAC 1-2-73.

A.3 Emission Units and Pollution Control Equipment Summary

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

- (a) Four (4) Liquefied Petroleum Gas (LPG) fired burn off ovens, identified as Oven 1, Oven 2, Oven 3, and Oven 4, each with a maximum throughput of 380 pounds of coated wire per hour, each equipped with a LPG afterburner as a control, with capacities as described below:
 - (1) Oven 1, constructed in 2000: Primary Burner with a maximum capacity of 0.794 MMBtu/hr and After Burner with a maximum capacity of 1.290 MMBtu/hr (total capacity is 2.084 MMBtu/hr).
 - (2) Oven 2, constructed in 2000: Primary Burner with a maximum capacity of 0.8 MMBtu/hr and After Burner with a maximum capacity of 1.08 MMBtu/hr (total capacity is 1.88 MMBtu/hr).
 - (3) Oven 3, constructed in 2000: Primary Burner with a maximum capacity of 0.862 MMBtu/hr and After Burner with a maximum capacity of 1.666 MMBtu/hr (total capacity is 2.528 MMBtu/hr).
 - (4) Oven 4, approved for construction in 2011: Primary Burner with maximum capacity of 0.815 MMBtu/hr and After Burner with a maximum capacity of 1.080 MMBtu/hr (total capacity is 1.895 MMBtu/hr).
- (b) One (1) ash removal system, identified as Ash Removal, consisting of a shaker table and tumbler, constructed in 2000, with a maximum capacity of 1.875 tons of material per hour, and controlled by a voluntary dust collector.

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. 019-26510-00133 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, 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.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) Four (4) Liquefied Petroleum Gas (LPG) fired burn off ovens, identified as Oven 1, Oven 2, Oven 3, and Oven 4, each with a maximum throughput of 380 pounds of coated wire per hour, each equipped with a LPG afterburner as a control, with capacities as described below:
 - (1) Oven 1, constructed in 2000: Primary Burner with a maximum capacity of 0.794 MMBtu/hr and After Burner with a maximum capacity of 1.290 MMBtu/hr (total capacity is 2.084 MMBtu/hr).
 - (2) Oven 2, constructed in 2000: Primary Burner with a maximum capacity of 0.8 MMBtu/hr and After Burner with a maximum capacity of 1.08 MMBtu/hr (total capacity is 1.88 MMBtu/hr).
 - (3) Oven 3, constructed in 2000: Primary Burner with a maximum capacity of 0.862 MMBtu/hr and After Burner with a maximum capacity of 1.666 MMBtu/hr (total capacity is 2.528 MMBtu/hr).
 - (4) Oven 4, approved for construction in 2011: Primary Burner with maximum capacity of 0.815 MMBtu/hr and After Burner with a maximum capacity of 1.080 MMBtu/hr (total capacity is 1.895 MMBtu/hr).
- (b) One (1) ash removal system, identified as Ash Removal, consisting of a shaker table and tumbler, constructed in 2000, with a maximum capacity of 1.875 tons of material per hour, and controlled by a voluntary dust collector.

(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 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2, the burn-off ovens shall:

- (1) Consist of primary and secondary chambers or the equivalent;
- (2) Be equipped with a primary burner unless burning only wood products;
- (3) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c);
- (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions correct to fifty percent (50%) excess air for incinerators with solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds

of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity of less than two hundred (200) pounds per hour.

- (6) If any requirements of 326 IAC 4-2-2(a)(1) through 326 IAC 4-2-2(a)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation; and
- (7) An incinerator is exempt from subsection (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
- (8) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

D.1.2 Carbon Monoxide Emission Limits [326 IAC 9-1-2]

Pursuant to 326 IAC 9-1-2(a)(3) (Carbon Monoxide Emission Limits), the Permittee shall not operate the burn-off ovens (Oven 1, Oven 2 and Oven 3) unless the waste gas stream is burned in on the following:

- (1) Direct-flame afterburner; or
- (2) Secondary chamber.

D.1.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emission rate from the shaker table and tumbler shall not exceed 6.25 lbs/hr (each) based on a process weight of 1.88 tons per hour. The pounds per hour limits were calculated using the following equation:

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

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

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

**REGISTRATION
ANNUAL NOTIFICATION**

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

Company Name:	DeReelTech LLC
Address:	3478 Marble Hill Rd. Building 3
City:	Nabb, Indiana 47147
Phone Number:	(812)-293-4786
Registration No.:	019-26510-00133

I hereby certify that DeReelTech LLC is :

- still in operation.
- no longer in operation.
- in compliance with the requirements of Registration No. 019-26510-00133.
- not in compliance with the requirements of Registration No. 019-26510-00133.

I hereby certify that DeReelTech LLC is :

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:

**Attachment A: Emission Calculations
Summary**

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laningham
Date: 02/05/11

	Potential to Emit before Notice Only Change (tons/yr)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Ovens 1 and 2- gas combustion	0.04	0.13	0.13	0.09	2.47	0.15	1.42	-	-
Ovens 1 and 2 - Burn Off	1.17	1.17	1.17	0.42	0.50	0.50	1.66	-	-
Oven 3 - gas combustion	0.02	0.08	0.08	0.05	1.57	0.10	0.91	-	-
Oven 3 - Burn Off	0.58	0.58	0.58	0.21	0.25	0.25	0.83	-	-
Ash Removal	4.93	1.18	1.18	-	-	-	-	-	-
Unpaved Roads	1.42	0.36	0.04	-	-	-	-	-	-
Total of entire source before NOC (tons/year)	8.16	3.51	3.18	0.76	4.79	1.00	4.82	-	-
Exemption Levels	5.00	5.00	5.00	10.00	10.00	5 or 10	25.00	25	10
Registration Levels	25.00	25.00	25.00	25.00	25.00	25	100.00	25	10

	Potential to Emit after Notice Only Change (tons/yr)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Ovens 1 and 2- gas combustion	0.04	0.13	0.13	0.09	2.47	0.15	1.42	-	-
Ovens 1 and 2 - Burn Off	1.17	1.17	1.17	0.42	0.50	0.50	1.66	-	-
Oven 3 and 4 - gas combustion	0.04	0.15	0.15	0.10	2.75	0.17	1.59	-	-
Oven 3 and 4 - Burn Off	1.17	1.17	1.17	0.42	0.50	0.50	1.66	-	-
Ash Removal	4.93	1.18	1.18	-	-	-	-	-	-
Unpaved Roads	1.42	0.36	0.04	-	-	-	-	-	-
Total of entire source after NOC (tons/year)	8.76	4.16	3.83	1.01	6.22	1.32	6.34	-	-
Exemption Levels	5.00	5.00	5.00	10.00	10.00	5 or 10	25.00	25	10
Registration Levels	25.00	25.00	25.00	25.00	25.00	25	100.00	25	10

Attachment A: Emission Calculations
LPG-Propane - Industrial Boilers
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)
Oven 1 and Oven 2

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laningham
Date: 02/05/11

Heat Input Capacity
MMBtu/hr

Potential Throughput
kgals/year

SO2 Emission factor = 0.10 x S
 S = Sulfur Content = 4.50 grains/100ft³

3.96
Ovens 1 and 2

379.50

Emission Factor in lb/kgal	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
	0.2	0.7	0.7	0.5 (0.10S)	13.0	0.8 **TOC value	7.5
Potential Emission in tons/yr	0.0	0.1	0.1	0.1	2.5	0.2	1.4

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 is also filterable and condensable PM2.5 combined.

**The VOC value given is TOC minus methane. The methane emission factor is 0.2 lb/kgal.

Methodology

Heat Input Capacity: Oven 1 - Primary: 0.794 MMBtu/hr and After Burner: 1.290 MMBtu/hr (Total Oven 1: 2.084 MMBtu/hr)
 Oven 2- Primary: 0.8 MMBtu/hr and After Burner: 1.08 MMBtu/hr (Total Oven 2: 1.88 MMBtu/hr)

1 gallon of LPG has a heating value of 90,500 Btu for commercial grade propane and HD-5, and a heating value of 97,400 Btu for commercial grade butane (AP-42 chapter 1.5, July 2008)

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane) AP-42 chapter 1.5, July 2008

1 gallon of butane has a heating value of 102,000 Btu (use this to convert emission factors to an energy basis for butane) AP-42 chapter 1.5, July 2008

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 July 2008, Table 1.5-1 (SCC 1-02-010-02)

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

Attachment A: Emission Calculations

**LPG-Propane - Industrial Boilers
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)
Ovens 3 and 4**

**Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laningham
Date: 02/05/11**

Heat Input Capacity MMBtu/hr Potential Throughput kgals/year SO2 Emission factor = 0.10 x S
S = Sulfur Content = 4.50 grains/100ft³
4.42 423.45
 Oven 3 and Oven 4

Emission Factor in lb/kgal	Pollutant						
	PM*	PM10*	PM2.5*	SO2 (0.10S)	NOx	VOC **TOC value	CO
Potential Emission in tons/yr	0.04	0.15	0.15	0.10	2.75	0.17	1.59

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 is also filterable and condensable PM2.5 combined.

**The VOC value given is TOC minus methane. The methane emission factor is 0.2 lb/kgal.

Methodology

Heat Input Capacity:
 Oven 3 - Primary: 0.862 MMBtu/hr and After Burner 1.666 MMBtu/hr (Total Oven 3: 2.528 MMBtu/hr)

1 gallon of LPG has a heating value of 90,500 Btu for commercial grade propane and HD-5, and a heating value of 97,400 Btu for commercial grade butane (AP-42 chapter 1.5, July 2008)

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane) AP-42 chapter 1.5, July 2008

1 gallon of butane has a heating value of 102,000 Btu (use this to convert emission factors to an energy basis for butane) AP-42 chapter 1.5, July 2008

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 July 2008, Table 1.5-1 (SCC 1-02-010-02)

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

**Attachment A: Emission Calculations
Burnoff Ovens 1 and 2**

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
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Reviewer: Duane Van Laningham
Date: 02/05/11

THROUGHPUT lbs/hr 76

THROUGHPUT ton/yr 332.88

Ovens 1 and 2

	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	1.17	0.42	1.66	0.50	0.50

Methodology

Note 1: The maximum throughput for each oven is 380 pounds per hour. The assumption is that 10% of the total throughput (380 lbs/hr) is equal to the amount of material burned off.

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)

**Attachment A: Emission Calculations
Burnoff Ovens 3 and 4**

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laingham
Date: 02/05/11

THROUGHPUT lbs/hr 76

THROUGHPUT ton/yr 332.88

Oven 3 and Oven 4

	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	1.17	0.42	1.66	0.50	0.50

Methodology

Note 1: The maximum throughput for each oven is 380 pounds per hour. The assumption is that 10% of the total throughput (380 lbs/hr) is equal to the amount of material burned off.

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)

**Attachment A: Emission Calculations
Ash Removal System**

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laningham
Date: 02/05/11

Throughput Calculation:

Capacity of each oven	Batch Time	Ovens feeding the Ash Removal System	Throughput of raw material
lbs/batch	Hours		tons/hour
10000.0	8	3	1.875

PM and PM10 Emission Calculations from Ash Removal:

	PM Emission Factor ¹ lb/ton of throughput	PM10 Emission Factor ² lb/ton of ash	PM Potential To Emit lb/hr	PM Potential To Emit ton/yr	PM10 / PM2.5 Potential to Emit lb/hr	PM10 / PM2.5 Potential to Emit ton/yr
Shaker Table	0.3	0.072	0.563	2.464	0.135	0.591
Tumbler	0.3	0.072	0.563	2.464	0.135	0.591
Total for Project:			1.125	4.928	0.270	1.183

Methodology

Potential To Emit (tons/yr) = Ash Generation Capacity (tons/hr) * Emission Factor (lb/ton) * 1 ton / 2000 lbs * 8760 hrs / yr

¹ PM Emission Factor for Ash Removal from AP-42 Chapter 11.19.2 SCC 3-05-020-21 - fines screening

² PM10 Emission Factor for Ash Removal from AP-42 Chapter 11.19.2 SCC 3-05-020-21 - fines screening

326 IAC 6-3 Applicability

	Maximum Process Weight (tons/hour)	326 IAC 6-3 Limit (lbs/hr)	PM Emission factor (lb/ton)	Max PTE Particulate (lb/hour)
Shaker Table	1.88	6.25	0.300	0.56
Tumbler	1.88	6.25	0.300	0.56

**Attachment A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads**

Company Name: DelReel Tech LLC
Address City IN Zip: 3478 Marble Hill Road, Building 3, Nabb, Indiana 47147
Permit Number: 019-26510-00133
Notice Only Change Number: 019-30134-00133
Reviewer: Duane Van Laningham
Date: 02/05/11

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip) (DelReel Tech LLC)	5.7	1.0	5.7	40.0	228.6	660	0.125	0.7	260.7
Vehicle (leaving plant) (one-way trip) (DelReel Tech LLC)	5.7	1.0	5.7	40.0	228.6	660	0.125	0.7	260.7
Total			11.4		457.1			1.4	521.4

Average Vehicle Weight Per Trip = $\frac{40.0}{1}$ tons/trip
 Average Miles Per Trip = $\frac{0.13}{1}$ miles/trip

Unmitigated Emission Factor, $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	40.0	40.0	40.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E \cdot [(365 - P)/365]$

Mitigated Emission Factor, $E_{ext} = E \cdot [(365 - P)/365]$
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, E_f =	8.28	2.11	0.21	lb/mile
Mitigated Emission Factor, E_{ext} =	5.44	1.39	0.14	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip) (DelReel Tech LLC)	1.08	0.27	0.03	0.71	0.18	0.02	0.71	0.18	0.02
Vehicle (leaving plant) (one-way trip) (DelReel Tech LLC)	1.08	0.27	0.03	0.71	0.18	0.02	0.71	0.18	0.02
	2.16	0.55	0.05	1.42	0.36	0.04	1.42	0.36	0.04

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particle Matter (<2.5 um)
 PTE = Potential to Emit



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Adam Rosenberg
DelReel Tech, LLC
3478 Marble Hill Road
Nabb, IN 47147

DATE: February 16, 2011

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

SUBJECT: Final Decision
Notice-Only Change
019-30134-00137

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:
Michael Jaap
Amanda Hennessy – Keramida Environmental, Inc.
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	GHOTOPP 2/16/2011 DelReel Tech LLC 019-30134-00133 Final		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Adam Rosenberg DelReel Tech LLC 3478 Marble Hill Rd Nabb IN 47147 (Source CAATS) via confirmed delivery										
2		Michael Jaap DelReel Tech LLC 3478 Marble Hill Rd Nabb IN 47147 (RO CAATS)										
3		Ms. Rhonda England 17213 Persimmon Run Rd Borden IN 47106-8604 (Affected Party)										
4		Ms. Betty Hislip 602 Dartmouth Drive, Apt 8 Clarksville IN 47129 (Affected Party)										
5		Mrs. Sandy Banet 514 Haddox Rd Henryville IN 47126 (Affected Party)										
6		Charlestown City Council and Mayors Office 304 Main Cross Street Charlestown IN 47111-1230 (Local Official)										
7		Mr. Robert Bottom Paddlewheel Alliance P.O. Box 35531 Louisville KY 40232-5531 (Affected Party)										
8		Clark County Board of Commissioners 501 E. Court Avenue Jeffersonville IN 47130 (Local Official)										
9		Clark County Health Department 1320 Duncan Avenue Jeffersonville IN 47130-3723 (Health Department)										
10		Ms. Amanda Hennessy Keramida Environmental, Inc. 401 N College Ave Indianapolis IN 46202 (Consultant)										
11												
12												
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