



The State of New Hampshire  
**Department of Environmental Services**



Robert R. Scott, Commissioner

**VIA EMAIL ONLY**

March 13, 2020

April Sargent, Project Assistant - Compliance  
Resource Management, Inc.  
1171 NH Rt. 175  
Holderness, NH 03245  
Email: [april.sargent@rmirecycles.com](mailto:april.sargent@rmirecycles.com)

**SUBJECT: Application to Certify a Waste-Derived Product – “Rousselot Gel Cake”**

**Approval of Certified Waste-Derived Product (CWDP) No. 28:  
Rousselot Gel Cake for use as a Soil Amendment**

Initial application received July 5, 2019; and assigned Application No. 2019-42705

Dear Ms. Sargent:

The New Hampshire Department of Environmental Services, Waste Management Division (NHDES) has completed its review of the above-referenced application by which Resource Management, Inc. (RMI) seeks to obtain a certification for “Rousselot Gel Cake” (RGC) as a waste-derived product for distribution and use in New Hampshire.

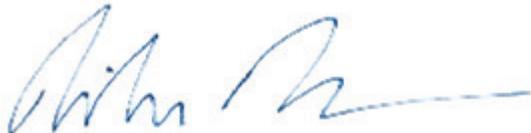
NHDES has **approved** the application, with conditions, and hereby issues the attached certified waste-derived product (CWDP) No. 28 pursuant to RSA 149-M:9 and Chapter Env-Sw 1500 of the NH Solid Waste Rules, Env-Sw 100 et seq. (Rules). Concurrent with the certification, NHDES is also issuing a description of our review of the application (Application Review Summary).

In addition to the terms and conditions contained in CWDP No. 28, NHDES notes that use of this product as a liming material or fertilizer as proposed would be subject to registration requirements pursuant to RSA 431, as well as any other applicable federal, state, district or local requirements governing the distribution and use of agricultural soil amendments.

Any person aggrieved by this decision may appeal to the New Hampshire Waste Management Council (Council) by filing an appeal that meets the requirements specified in New Hampshire Revised Statutes Annotated (RSA) 21-O:14, *Administrative Appeals*, and the rules adopted by the Council, Env-WMC 200, *Procedural Rules*. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Information about the Council, including a link to the Council’s rules, is available at <http://nhec.nh.gov/waste/index.htm>.

If you have any questions regarding this approval, please contact the Solid Waste Management Bureau at (603) 271-2925 or [solidwasteinfo@des.nh.gov](mailto:solidwasteinfo@des.nh.gov).

Sincerely,



Michael Nork  
Solid Waste Management Bureau  
Tel.: (603) 271-2936  
Email: [michael.nork@des.nh.gov](mailto:michael.nork@des.nh.gov)

Waste  
Management  
Division



Digitally signed by Waste Management  
Division  
DN: cn=Waste Management Division, o=Solid  
Waste Division, ou=Waste Management  
Division,  
email=NELSON.ORDWAY@DES.NH.GOV, c=US  
Date: 2020.03.13 10:10:24 -04'00'

encl. Certified Waste-Derived Product No. 28: Rousselot Gel Cake for use as a Soil Amendment,  
dated March 13, 2020  
Application Review Summary, dated March 13, 2020



## RECORD OF CERTIFIED WASTE-DERIVED PRODUCT APPROVAL

Issued by the NH Department of Environmental Services, Waste Management Division (NHDES)  
pursuant to RSA 149-M and Chapter Env-Sw 1500 of the New Hampshire Solid Waste Rules (Rules)

### I. PRODUCT IDENTIFICATION:

**Certified Waste Derived Product No. 28**

**Common Name:** Soil Amendment

**Trade Name:** Rousselot Gel Cake

**General Use / Purpose:** Substitute for agricultural liming materials and/or fertilizers to be directly land applied or incorporated into topsoil mixes.

**Product Description:** Tan, semi-solid, gel-like material produced as a residual waste during the manufacturing of food and pharmaceutical grade gelatin at Rousselot Peabody, Inc. in Peabody, MA.

**Waste Content:** Residual waste from the gelatin manufacturing process

### II. FILE REFERENCE/RECORD OF APPLICATION:

**Applicant Name:** Resource Management, Inc.

**Applicant Mailing Address:** 1171 NH Rt. 175, Holderness, NH 03245

**Applicant Principal Business Address:** 1171 NH Rt. 175, Holderness, NH 03245

**Application No.:** 2019-42705

**Date(s) Received:** July 5, 2019; and September 16, 2019

**WMD Document Log #(s):** 2019-42705-01 and 2019-42705-02, respectively

### III. TERMS AND CONDITIONS OF USE: Attached.

### IV. AUTHORIZATION & SIGNATURE: The waste-derived product identified above is hereby certified for distribution and use in New Hampshire, subject to all terms and conditions specified herein. This approval is based on information and representations provided to NHDES in the application identified in Section II above. If the information is false, misleading or incomplete, this certification may be revoked or suspended in accordance with Part Env-Sw 1509 of the Rules.

**BY EXERCISING ANY RIGHTS UNDER THIS APPROVAL, THE USER HAS AGREED TO ALL TERMS AND CONDITIONS OF THE CERTIFICATION.** Failure to comply with the terms and conditions of the certification may result in administrative, civil or criminal enforcement action and penalties, and suspension or revocation of the certification. No liability is incurred by the State of New Hampshire by reason of this certification. No warranty/guarantee is intended or implied by reason of any advice given by NHDES or its staff.

This certification shall not eliminate any person's obligation to obtain all requisite federal, state or local permits, licenses or approvals or to comply with all other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to production, distribution, use, and disposal of this certified waste-derived product.

A handwritten signature in black ink, appearing to read "Michael J. Wimsatt".

Michael J. Wimsatt, P.G., Director  
Waste Management Division

March 13, 2020  
Effective Date

Environmental Services

Digitally signed by Environmental Services  
DN: cn=Environmental Services, o, ou=Waste  
Management, email=pamela.Werner@des.nh.gov, c=US  
Date: 2020.03.13 09:37:38 -04'00'



## **SECTION III: TERMS AND CONDITIONS**

### **General Conditions**

- (1) Subject to the terms and conditions of this certification, Rousselot Gel Cake shall be deemed certified for distribution and use in the State of New Hampshire as an agricultural soil amendment in accordance with RSA 149-M and the New Hampshire Solid Waste Rules, Env-Sw 100 et seq. (Rules), as each may be amended from time to time.
- (2) Rousselot Gel Cake, when it is actively managed and used in accordance with the conditions of this certification, RSA 149-M, and the Rules, as each may be amended from time to time, shall be deemed not a solid waste.
- (3) Rousselot Gel Cake and the waste used to produce Rousselot Gel Cake shall not be nor ever have been a hazardous waste pursuant to RSA 147-A, and the New Hampshire Hazardous Waste Rules, Env-Hw 100 et seq., as each may be amended from time to time.
- (4) This certification shall not constitute an endorsement by NHDES of Rousselot Gel Cake.
- (5) This certification shall not mean that Rousselot Gel Cake is benign to the environment, public health and safety or that Rousselot Gel Cake will perform according to consumer expectations or manufacturer or distributor representations.
- (6) This certification shall not exempt any person from the provisions of RSA 149-M and the Rules, as each may be amended from time to time, when Rousselot Gel Cake resumes the status of a solid waste, including when it ceases being actively managed or is otherwise abandoned or discarded.
- (7) Production, distribution, use and disposal of Rousselot Gel Cake is subject to the general requirements and limitations in Env-Sw 1502.02 and Env-Sw 1502.04, as each may be amended from time to time.
- (8) Resource Management, Inc., or other users of Rousselot Gel Cake shall retain records to demonstrate compliance with the terms and conditions of this certification, and shall provide such records to NHDES when requested by NHDES.

### **Production and Product Specifications**

- (9) This certification shall apply only to Rousselot Gel Cake produced at the Rousselot Peabody, Inc. facility in Peabody, MA. Rousselot Gel Cake, as certified under this approval, shall be produced in the same manner as specified in the application (WMD Log No. 2019-42705-01, received by NHDES on July 5, 2019).
- (10) Rousselot Gel Cake shall not contain constituents exceeding the standards for sludge quality in Env-Wq 809, and the screening values for sludge published by NHDES' Wastewater Engineering Bureau, Residuals Management Section.

### **Product Use**

- (11) Rousselot Gel Cake shall be applied to land under the oversight of a certified crop advisor at rates determined by soil analysis and crop type.
- (12) Rousselot Gel Cake shall be managed in a manner that controls nuisance conditions to the greatest extent practicable, including application of wood ash or other suitable odor control agent in situations where Rousselot Gel Cake is stockpiled or land-applied without immediate incorporation into the soil.

		<b>APPLICATION REVIEW SUMMARY</b>		<b>New Hampshire Department of Environmental Services Waste Management Division, Solid Waste Management P.O. Box 95, 29 Hazen Drive Concord, NH 03302-0095 Phone: 603-271-2925 Fax: 603-271-2456</b>	
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork		
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.		
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020		
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705	Page 1 of 13	

**TABLE OF CONTENTS**

**PROJECT DESCRIPTION .....2**

**TECHNICAL REVIEW NOTES.....2**

    Env-Sw 1500 CERTIFICATION OF WASTE-DERIVED PRODUCTS ..... 3

**APPLICATION DECISION .....6**

**OTHER LOCAL, STATE, AND FEDERAL REQUIREMENTS.....6**

**ATTACHMENT A – EVALUATION OF CERTIFICATION CRITERIA .....7**

**ATTACHMENT B – ASSESSMENT OF ANALYTICAL RESULTS BY NHDES RESIDUALS MANAGEMENT SECTION .....13**

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705
			Page 2 of 13

## PROJECT DESCRIPTION

The applicant, Resource Management, Inc. (RMI) seeks to certify a residual waste for distribution and use as an agricultural soil amendment to be land-applied and/or incorporated into topsoil mixes in New Hampshire. The residual waste, known as Rousselot Gel Cake (RGC), is generated by Rousselot Peabody, Inc. in Peabody, Massachusetts and is a semi-solid byproduct of the company's food and pharmaceutical gelatin manufacturing process. RMI intends to distribute this product in NH, and asserts that RGC has agronomic value due its lime content and other plant-available nutrients. RMI further asserts that RGC is currently in use as a soil amendment in Massachusetts, where it has been granted an Approval of Suitability as a Type I residual (a determination that is required for land application of sludge, sludge products and septage in Massachusetts). RGC is proposed to be applied to soils and topsoil mixes as-is, without further processing, preparation, or alteration.

NHDES reviewed RMI's application for certification of the waste-derived product for distribution and use in New Hampshire to determine whether RGC meets all applicable criteria for certification as specified in the NH Solid Waste Rules (the Rules, Env-Sw 100 et seq.) in effect on the date of the final decision on the application. The results of the review are summarized herein, on a rule-by-rule basis. The reader can obtain a copy of the cited rules from the NH Office of Legislative Services (see <http://gencourt.state.nh.us/rules/default.htm>).

NHDES is approving the application to certify RGC as a waste-derived product for use as a soil amendment, with conditions. This approval is issued as Certified Waste-Derived Product No. 28, Rousselot Gel Cake (RGC) as a Soil Amendment.

### Submittals

- Resource Management, Inc. (July 3, 2019). *Application to Certify a Waste-Derived Product for Distribution and Use: Rousselot Gel Cake as Soil Amendment*. Received July 5, 2019. Assigned WMD Doc. Log No. 2019-42705-01.
- Resource Management, Inc. (September 13, 2019). *Supplemental Submittal to Application to Certify a Waste-Derived Product "Rousselot Gel Cake" – Additional Information Provided* (Response to NHDES Incompleteness Letter Dated August 2, 2019). Received September 16, 2019. Assigned WMD Doc. Log No. 2019-42705-02.

NHDES deemed the application complete as of September 16, 2019, in accordance with Env-Sw 1507.02, *Application Completeness Determination*.

## TECHNICAL REVIEW NOTES

NHDES reviewed the information provided in the application to determine if the proposed waste-derived product met the applicable requirements of the Rules for certification. The notes provided in this section document the review, on a rule-by-rule basis.

General note regarding product specifications: NHDES reviewed the application to determine whether the proposed product is likely to satisfy the requirements for certification of a waste-derived product pursuant to the Rules. Actual compliance with the certification requirements is determined on an ongoing basis. Even if NHDES has determined that the waste-derived product is likely to satisfy the certification and rule requirements, additional or different measures may be necessary to maintain compliance depending on actual conditions.

To be certified as a waste-derived product pursuant to Env-Sw 1500, the waste-derived product must not be nor ever have been a hazardous waste. This review, summarized below, presumes that the product in question and the waste

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705

from which it is derived is not, nor has ever been, a hazardous waste.

## Env-Sw 1500 CERTIFICATION OF WASTE-DERIVED PRODUCTS

### Env-Sw 1501 PURPOSE AND APPLICABILITY

Env-Sw 1501.01 Purpose – Statement. No evaluation undertaken.

Env-Sw 1501.02 Applicability – These rules are applicable.

### Env-Sw 1502 CERTIFICATION REQUIREMENTS

Env-Sw 1502.01 Certification Required – Applicable – The product is waste-derived; therefore, it must be certified for distribution and use in accordance with this chapter and, if certified, used in accordance with the certification. Applicant has applied for certification of the waste-derived product. Satisfies requirement.

Env-Sw 1502.02 Status of Certified Waste-Derived Products – Applicable – These rules are applicable to a product that has been certified. No further evaluation undertaken.

To ensure compliance with this rule following certification of the product, Condition (7) of the certification states that production, distribution, use and disposal of this product is subject to the general requirements and limitations in Env-Sw 1502.02 and Env-Sw 1502.04, as each may be amended from time to time.

#### Env-Sw 1502.03 General Provisions for Obtaining Certification

- 1502.03(a)(1) – Not applicable – The product is not certified by rule Env-Sw 1503.
- 1502.03(a)(2) – Applicable – See review of Env-Sw 1504 and Env-Sw 1505 herein.
- 1502.03(b) – Applicable – Instructional. No evaluation undertaken.
- 1502.03(c) – Applicable – Application filed by RMI for certification of a non-proprietary product. Satisfies requirement.
- 1502.03(d) – Not applicable.

Env-Sw 1502.04 General Requirements and Limitations – Applicable – These rules are applicable to a product that has been certified. No further evaluation undertaken.

To ensure compliance with this rule following certification of the product, Condition (7) of the certification states that production, distribution, use and disposal of this product is subject to the general requirements and limitations in Env-Sw 1502.02 and Env-Sw 1502.04, as each may be amended from time to time.

### Env-Sw 1503 WASTE-DERIVED PRODUCTS CERTIFIED BY RULE – Not Applicable

### Env-Sw 1504 CRITERIA FOR CERTIFICATION

Env-Sw 1504.01 Purpose – Statement. No evaluation undertaken.

Env-Sw 1504.02 Applicability – Applicable – These rules are applicable to certifying a waste-derived product.

Env-Sw 1504.03 Certification Criteria – Applicable – See review of Env-Sw 1504.04 through Env-Sw 1504.06 in Attachment A herein.

Env-Sw 1504.04 Need – Applicable – See Attachment A herein.

Env-Sw 1504.05 Product Quality and Quality Control – Applicable – See Attachment A herein.

Env-Sw 1504.06 Impact on Society – Applicable – See Attachment A herein.

### Env-Sw 1505 APPLICATION REQUIREMENTS

#### Env-Sw 1505.01 Applicability

- 1505.01(a) – Applicable – These rules apply to RMI as applicant. No further evaluation undertaken.
- 1505.01(b) – Not applicable – The product is not already certified as a waste-derived product.
- 1505.01(c) – Not applicable – The product is not proprietary.

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705

Env-Sw 1505.02 Application Content and Format – Applicable – See review of Env-Sw 1505.03 through Env-Sw 1505.09 herein.

Env-Sw 1505.03 Applicant Identification

- 1505.03(a) – Not applicable
- 1505.03(b)(1) – Applicable – Satisfies requirement.
- 1505.03(b)(2) – Applicable – Satisfies requirement.
- 1505.03(c)(1) – Not applicable – RGC is a residual waste generated during Rousselot Peabody, Inc.’s food-grade gelatin manufacturing process. No production (i.e. alteration or combination with other ingredients to convert it to a useable product) is necessary.
- 1505.03(c)(2) – Applicable – RMI intends to coordinate distribution and use of RGC for its clients’ nutrient management projects. Satisfies requirement.
- 1505.03(c)(3) – Not applicable – RGC is a residual waste generated during Rousselot Peabody, Inc.’s food-grade gelatin manufacturing process.
- 1505.03(c)(4) – Not Applicable – In the application, Section 7, RMI states that RGC will be distributed from the point of generation via dump trailer directly to end-users.
- 1505.03(c)(5) – Applicable – RMI is not the end-user of RGC, but intends to use RGC in its clients’ nutrient management projects. Satisfies requirement.

Env-Sw 1505.04 Product Identification and General Description

- 1505.04(a) – Applicable – Applicant states this product would be commonly classified as a “soil amendment.” The proposed trade name is “Rousselot Gel Cake.” Satisfies requirement.
- 1505.04(b)(1) – Applicable – In the application, Section 3, applicant states that this product will be used to provide nutrients for production of crops. Sections 3 and 7 further state that the product will be applied directly to soils or used in the production of topsoil blends. Satisfies requirement.
- 1505.04(b)(2) – Applicable – In the application, Section 3, the applicant describes RGC as “light tan in color,” with an average of 35% total solids. Further, the applicant asserts that RGC is a source of organic nitrogen, lime, and other nutrients that are beneficial for the production of crops and vegetation. The waste is the product, specifically, it is a residual waste from the manufacturing of food-grade gelatin. Satisfies requirement.
- 1505.04(c) – Applicable – Applicant states in supplemental submittal received by NHDES on September 16, 2019, that comparable existing non-waste-derived products are mined lime and chemical fertilizers, such as granular urea. Satisfies requirement.
- 1505.04(d) – Applicable – Satisfies requirement.

Env-Sw 1505.05 Manufacturer Identification

- 1505.05(a) – Applicable – Applicant asserts that the product is not proprietary. Satisfies requirement.
- 1505.05(b) – Not applicable
- 1505.05(c) – Applicable – Rousselot Peabody, Inc. in Peabody, MA is listed as the only known manufacturer of this product. Satisfies requirement.

Env-Sw 1505.06 Production

- 1505.06(a)(1) – Applicable – See application, Section 3. Satisfies requirement.
- 1505.06(a)(2) – Applicable – See application, Sections 3 & 5. In Section 5, the applicant states that the waste-derived product is stable with no known potential for dust, fire or explosion, but that it “can become odorous in warmer months if not managed properly.” Satisfies requirement.

To ensure that nuisance conditions are controlled to the greatest extent practicable, Condition (12) of the certification requires RGC to be managed in a manner that controls nuisance conditions to the greatest extent practicable, including application of wood ash or other suitable odor control agent in situations where RGC is stockpiled or land-applied without immediate incorporation into the soil.

Application Review Summary			
Applicant	Resource Management, Inc. (RMI)	Reviewed by	Michael Nork
Location	Statewide	Checked by	Jaime M. Colby, P.E.
Permit No.	Not Applicable	Review Date	Completed March 13, 2020
Application	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	Activity No.	2019-42705
			Page 5 of 13

- 1505.06(a)(3)a. – Applicable – See application, Sections 3 & 5, as well as Attachment III (Analytical Data) and supplemental submittal received by NHDES on September 16, 2019 (Additional Analytical Data). Satisfies requirement.
- 1505.06(a)(3)b. – Applicable – Applicant did not supply SDSs for the waste and NHDES is not aware of any published SDSs for the same. Applicant made a good faith effort by submitting SDSs for the ingredients used in the manufacture of gelatin. Satisfies requirement.
- 1505.06(a)(3)c. – Not applicable – NHDES did not request samples of the waste.
- 1505.06(a)(4)a. – Applicable – See application, Section 6 and Attachment II (Process Description). Satisfies requirement.
- 1505.06(a)(4)b. – Applicable – See application, Section 5. Satisfies requirement.
- 1505.06(a)(5) – Applicable – RGC is not generated in NH. However, in Section 5 applicant states that 7,000 wet tons will be available annually for distribution in NH.
- 1505.06(b)(1) – Applicable – See application, Section 5 and Attachment II (Process Description). RGC is the sole ingredient in the product (no additional materials/ingredients added). In Section 6, applicant proposes using quality standards from Env-Sw 1700, *Requirements for Land Application of Wood Ash*, for this product. **Does not satisfy requirement.**

RGC and wood ash are not derived from similar materials and do not exhibit similar characteristics, therefore it would not be appropriate to use the land application standards for wood ash for RGC. RGC is a manufacturing process waste and is more sludge-like due to its higher moisture content, higher volatile solids content, and putrescible/odorous nature.

More appropriate standards for use of RGC as a soil amendment are provided in Env-Wq 800, *Sludge Management*, which contains quality standards for land application of sludge in Env-Wq 809.

To ensure that this product meets appropriate quality standards, Condition (10) of the certification states that RGC shall not contain constituents exceeding the standards for sludge quality in Env-Wq 809, and the screening values for sludge published by NHDES' Wastewater Engineering Bureau, Residuals Management Section.

- 1505.06(b)(2) – Applicable – See application, Section 6 and Attachment II (Process Description). Satisfies requirement.
- 1505.06(b)(3) – Applicable – See application, Attachment II (Process Description). Satisfies Requirement.
- 1505.06(b)(4) – Applicable – See Env-Sw 1505.06(b)(1) above and Attachment A herein for evaluation of QA/QC procedures.

#### Env-Sw 1505.07 Use, Distribution and Markets

- 1505.07(a) – Applicable – See application, Section 7. Satisfies requirement.
- 1505.07(b) – Applicable – See application, Section 7. Satisfies requirement.
- 1505.07(c) – Applicable – See application, Section 7. Satisfies requirement.
- 1505.07(d) – Applicable – See application, Section 7, and supplemental submittal received by NHDES on September 16, 2019. Satisfies requirement.
- 1505.07(e) – Applicable – See application, Section 7. Satisfies requirement.
- 1505.07(f) – Applicable – See application, Section 7. Satisfies requirement.

Env-Sw 1505.08 Demonstration of Criteria – Applicable – See application, Section 8. Satisfies requirement.

Env-Sw 1505.09 Signature and Certification of Application Information – Applicable – Signed by April Sargent, RMI Compliance Project Assistant. Satisfies requirement.

#### Env-Sw 1506 APPLICATION FILING

Env-Sw 1506.01 Application Filing – Applicable – Satisfies requirements.

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705
			Page 6 of 13

Env-Sw 1507 APPLICATION REVIEW

Env-Sw 1507.01 Application Receipt

- 1507.01(a) – Applicable – Satisfies requirement.
- 1507.01(b) – Not applicable
- 1507.01(c) – Not Applicable

Env-Sw 1507.02 Application Completeness Determination – Applicable – Instructional. No further evaluation undertaken.

Env-Sw 1507.03 Incomplete Applications – Not applicable

Env-Sw 1507.04 Complete Applications – Applicable – Instructional. See review of Env-Sw 1504 herein.

**APPLICATION DECISION**

**Env-Sw 1500 CERTIFICATION OF WASTE-DERIVED PRODUCTS**

Env-Sw 1507 APPLICATION REVIEW

Env-Sw 1507.05 Application Decision

- 1507.05(a) – Applicable – As described in Attachment A herein, NHDES has determined that the criteria for certification in Env-Sw 1504 are met, subject to terms and conditions in the approval; therefore, the requested certification is **approved** and issued Certified Waste-Derived Product No. 28, Rousselot Gel Cake as a Soil Amendment.
- 1507.05(b) – Not applicable
- 1507.05(c) – Not applicable

**OTHER LOCAL, STATE, AND FEDERAL REQUIREMENTS**

The review and conclusions presented in this permit application review summary pertain solely to solid waste requirements of RSA 149-M and Env-Sw 100 et seq. As noted in Env-Sw 1502.02(d) and (e), an approval granted relative to these solid waste requirements shall not affect any person’s obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to the approved activity. Also, pursuant to Env-Sw 101.02(d), if a conflict arises between the rules in subtitle Env-Sw and any federal or state statute, rule, or regulation, the more stringent requirement(s) shall apply.

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705
			Page 7 of 13

## ATTACHMENT A – Evaluation of Certification Criteria

### Application to Certify a Waste-Derived Product for Distribution and Use Rousselot Gel Cake (RGC) as a Soil Amendment Resource Management, Inc. March 13, 2020

Summary: The applicant, Resource Management, Inc. (RMI), seeks a non-proprietary certification of a waste-derived product known by the trade name Rousselot Gel Cake (RGC) for distribution and use in New Hampshire as an agricultural soil amendment by way of land application or incorporation into topsoil mixes. RGC is generated by Rousselot Peabody, Inc. in Peabody, Massachusetts and is a semi-solid residual waste from the company’s food-grade gelatin manufacturing process.

Evaluation of Certification Criteria: The New Hampshire Solid Waste Rules, Env-Sw 100 et seq., specifically Env-Sw 1507.05, *Application Decisions*, state that “[i]f the criteria for certification in Env-Sw 1504 are met, the department **shall** certify the waste-derived product for distribution and use.” The certification criteria are specified in Env-Sw 1504.04 through Env-Sw 1504.06. NHDES’ assessment and determination of the certification criteria is described below. The Rule criteria are presented in underlined text. Information provided by the applicant and pertaining to NHDES’ related assessments is presented in regular type. NHDES’ assessment and determination is presented in ***bold italics***.

Env-Sw 1504.04 Need. “The applicant shall demonstrate a need for the waste-derived product based on the following criteria:”

- (a) “The waste-derived product shall either:
  - (1) Be comparable in form and function to an existing product in the market place which is not derived from waste, and shall perform as effectively or more effectively than the existing product; or”

In Section 8 of the application, the applicant asserts that RGC is an “excellent substitute for commercial fertilizer,” and the applicant describes the typical nutrient content of RGC (in pounds per wet ton). In the supplemental submittal received by NHDES on September 16, 2019, the applicant further states that RGC is comparable in form, function and effectiveness to both crushed limestone as a liming material and urea as a nitrogen fertilizer. Further, in Section 5 of the application, the applicant asserts that each wet ton of RGC has 11 lbs of plant-available nitrogen, 10 lbs of phosphorous, 5 lbs of potash, and 440 lbs of lime. Analytical characteristics are provided in Attachment III to the application received by NHDES on July 5, 2019 (WMD Log No. 2019-42705-01), as well as the supplemental submittal received by NHDES on September 16, 2019 (WMD Log No. 2019-42705-02). These results indicate that in at least one instance, RGC contains 57% CaCO<sub>3</sub> equivalence by dry wet weight (see Attachment III to the application, record of sample taken on March 13, 2019).

***NHDES Assessment and Determination:***

***Based on the information provided, it is NHDES’ determination that RGC’s primary value is as a liming material, with additional nutrients that conventional liming materials do not contain. If applied in accordance with best management practices, NHDES believes that RGC is likely comparable in form and function to existing products in the market place and will likely perform as effectively or more effectively than conventional liming materials. This criterion is met.***

Application Review Summary			
Applicant	Resource Management, Inc. (RMI)	Reviewed by	Michael Nork
Location	Statewide	Checked by	Jaime M. Colby, P.E.
Permit No.	Not Applicable	Review Date	Completed March 13, 2020
Application	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	Activity No.	2019-42705

(2) “Satisfy an identifiable and unfulfilled need in society without violating the universal environmental performance standards in Env-Sw 1002;”

***NHDES Assessment and Determination:***

***Env-Sw 1504.04(a) requires demonstration of need under (1) or (2). NHDES determined that the applicant demonstrated the need under (1). Assessment of (2) is not required; therefore, NHDES did not assess this criterion and makes no determination.***

- (b) “There shall be an identifiable user or buyer for the waste-derived product; and”

In Section 8 of the application, the applicant states that RGC is actively being used in Massachusetts by farmers, composters and topsoil manufacturers. In Section 7 of the application, the applicant asserts that New Hampshire farmers have expressed demand as potential users of RGC.

***NHDES Assessment and Determination:***

***Given the fact that the material is actively being used in Massachusetts, NHDES concurs with the applicant’s assertion that there are potential users or buyers of the product in New Hampshire. This criterion is met.***

- (c) “Waste-derived products used for agronomic purposes shall provide an identifiable benefit(s) to the sites to which it is land applied.”

In Section 7 of the application, the applicant states that RGC is “an excellent source of organic nitrogen, lime and other nutrients that are beneficial for the production of crops and vegetation when the material is land applied as a soil amendment or blended as a topsoil amendment.” The applicant further states in Section 8 of the application that each wet ton of RGC contains, on average, 11 pounds of plant-available nitrogen, 10 pounds of phosphorous, 5 pounds of potash, and 440 pounds of lime.

***NHDES Assessment and Determination:***

***Based on the information provided, it is NHDES’ understanding that RGC’s primary value is as a liming material, with secondary value as a fertilizer. Analytical results and other information provided by the applicant indicate that RGC, when applied as proposed, has the potential to provide benefits to the sites to which it is land applied.***

***RGC’s calcium content may provide a beneficial nutrient for crop production, but would also increase soil pH. If this product is applied to soils with the primary purpose of adding nutrients (e.g., N-P-K) as described in the application, it could result in soil pH imbalances. Although RMI states in the application that RMI will provide nutrient management oversight with a certified crop advisor (see Section 7 of the application), this certification is not a proprietary approval belonging to RMI alone.***

***To ensure that RGC is land applied at appropriate rates, Condition (11) of the certification requires RGC to be applied to land under the oversight of a certified crop advisor at rates determined by soil analysis and crop type.***

***With conditions, this criterion is met.***

Env-Sw 1504.05 Product Quality and Quality Control. “The applicant shall demonstrate that the production process meets the following requirements:

- (a) Production of the waste-derived product shall not:

Application Review Summary			
Applicant	Resource Management, Inc. (RMI)	Reviewed by	Michael Nork
Location	Statewide	Checked by	Jaime M. Colby, P.E.
Permit No.	Not Applicable	Review Date	Completed March 13, 2020
Application	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	Activity No.	2019-42705

Page 9 of 13

(1) Cause a violation of any requirement in Env-Sw 1000; or”

The applicant does not address this provision relative to production of RGC. Applicant does state in Section 5 of the application form that RGC is not generated in New Hampshire.

***NHDES Assessment and Determination:***

***RGC is neither currently nor proposed to be produced in New Hampshire. Based upon NHDES’ understanding of the production process, as described in the application, NHDES has determined that the production of RGC can likely meet this requirement. This criterion is met.***

(2) “Pose a greater risk to the environment, public health and safety than does the production of an existing comparable non-waste-derived product or, if no comparable non-waste-derived product exists, by directly disposing of the waste in accordance with the solid waste rules;”

The applicant states in Section 8 of the application that RGC is a residual waste from the manufacturing of food and pharmaceutical grade gelatin, and is generated in a controlled setting with quality assurance and quality control procedures. Further, RGC is tested and analyzed twice per year for metals, nutrient, and pathogen concentrations. Therefore, the applicant asserts, there is no greater risk associated with the production or disposal of RGC as a waste-derived product (because in this case the waste and the waste-derived product are one and the same). Applicant does not address whether the production of RGC poses a greater risk than the production of existing comparable non waste-derived products.

***NHDES Assessment and Determination:***

***Given that RGC results from a standardized food-grade manufacturing process that is regulated pursuant to federal and state requirements, NHDES finds that the production process is unlikely to pose a greater risk to the environment, public health and safety than the production of comparable non-waste-derived products. This criterion is met.***

- (b) “The physical and analytical characteristics of the waste used to produce the product shall be defined in a written specification;”

RGC is both the waste and the waste-derived product. In Section 3 of the application, the applicant describes RGC as “light tan,” with an average of 35% total solids, indicating that this product is a semi-solid, gel-like substance. In addition, the applicant provided laboratory reports as an indication of RGC’s analytical characteristics. However, the applicant did not provide a written specification for RGC.

***NHDES Assessment and Determination:***

***The applicant has not provided a written specification for RGC, other than to imply that the laboratory results provided represent the product’s average characteristics.***

***To ensure that RGC meets a consistent specification, Condition (9) of the certification requires RGC to be produced in the same manner as specified in the application at the Rousselot Peabody, Inc. facility in Peabody, MA. In addition, Condition (10) of the certification states that RGC shall not contain constituents exceeding the standards for sludge quality in Env-Wq 809, and the screening values for sludge published by NHDES’ Wastewater Engineering Bureau, Residuals Management Section.***

Application Review Summary			
Applicant	Resource Management, Inc. (RMI)	Reviewed by	Michael Nork
Location	Statewide	Checked by	Jaime M. Colby, P.E.
Permit No.	Not Applicable	Review Date	Completed March 13, 2020
Application	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	Activity No.	2019-42705

**Further, NHDES notes that use of this product as a liming material or fertilizer in NH is subject to RSA 431, which requires distributors of such products to register them with the New Hampshire Department of Agriculture, Markets and Food, and adhere to certain labeling/disclosure requirements.**

**With conditions, this criterion is met.**

- (c) “The physical and analytical characteristics of the waste-derived product shall be defined in a written specification; and”

RGC is both the waste and the waste-derived product. The applicant states that RGC will be used as-is, without further preparation or processing. See also the description in (b) above.

**NHDES Assessment and Determination:**

**Based on the information provided, and given the fact that the waste and the waste-derived product are one and the same, NHDES has determined that the specifications noted in (b) above also satisfy this criterion.**

**With the same conditions as noted in (b) above, this criterion is met.**

- (d) “The production process shall include quality assurance/quality control procedures to assure the defined specifications shall be met through the production process.”

In Attachment II to the application (Process Description), the applicant describes the process that generates RGC as a residual waste of the gelatin manufacturing process at the Rousselot facility in Peabody, MA. The applicant states that RGC is tested twice annually.

**NHDES Assessment and Determination:**

**Based on the descriptions provided in the application, the production process occurs in a controlled environment at a specific facility in Peabody, MA. Quality assurance is achieved through regular testing.**

**To ensure RGC meets this requirement, Condition (9) of the certification requires RGC to be produced in the same manner as specified in the application at the Rousselot Peabody, Inc. facility in Peabody, MA. The certification does not apply to similar materials produced at other facilities or by other processes.**

**With conditions, this criterion is met.**

Env-Sw 1504.06 Impact on Society. “The applicant shall demonstrate that use of the waste-derived product in society shall have a minimal net impact based on the following requirements:

- (a) Use of the waste-derived product as intended shall not:
  - (1) Cause a violation of any requirement of Env-Sw 1000; or”

The applicant states in Section 8 of the application that utilizing RGC as proposed will not cause a violation of Env-Sw 1000. In Section 7 of the application, the applicant proposes oversight and use of best management practices through a certified crop advisor, and various setback distances for land application and stockpiling of the product in order to minimize potential for nutrient loading impacts to surface and groundwater. With regard to odor management, the applicant states in Section 7 the intention to use wood ash as a means to

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705

control potential odors from RGC. In verbal communication with the applicant, NHDES learned that this would involve application of wood ash in cases where RGC is land applied without immediate incorporation into the soil (e.g., top-dressing) or use of wood ash as a cover for stockpiled RGC.<sup>1</sup> See also Env-Sw 1504.05(a)(1) above.

***NHDES Assessment and Determination:***

***NHDES concurs that users of this product should employ best management practices to minimize potential surface and ground water discharges as well as potential nuisance conditions such as odors. NHDES does not object to the setback distances proposed in the application, but notes that users of this product may be subject to more stringent federal, state and local requirements, as applicable. Based on the information provided, NHDES concurs with the applicant’s assessment that use of RGC as intended would be unlikely to cause a violation of Env-Sw 1000.***

***To ensure that the use of RGC meets this requirement, Condition (7) of the certification states that production, distribution, use and disposal of this product is subject to the general requirements and limitations in Env-Sw 1502.02 and Env-Sw 1502.04, as each may be amended from time to time. Env-Sw 1502.04(d) requires distributors or users to manage the product in conformance with the universal environmental performance standards in Env-Sw 1002, which prohibits surface and groundwater discharges. Additionally, Condition (12) of the certification requires RGC to be managed in a manner that controls nuisance conditions to the greatest extent practicable, including application of wood ash or other suitable odor control agent in situations where RGC is stockpiled or land-applied without immediate incorporation into the soil.***

***With condition, this criterion is met.***

(2) “Pose a greater risk to the environment, public health and safety than does the use of an existing comparable non-waste-derived product or, if no comparable non-waste-derived product exists, by disposing of the waste in accordance with the solid waste rules; and”

In Section 5 of the application, the applicant asserts that each wet ton of RGC has 11 lbs of plant-available nitrogen, 10 lbs of phosphorous, 5 lbs of potash, and 440 lbs of lime. Analytical characteristics are provided in Attachment III to the application received by NHDES on July 5, 2019 (WMD Log No. 2019-42705-01), as well as the supplemental submittal received by NHDES on September 16, 2019 (WMD Log No. 2019-42705-02). In the supplemental submittal received by NHDES on September 16, 2019, the applicant provided additional analytical data relevant to land application of residuals (based on a sampling event on August 8, 2019). The applicant stated that the analytical results indicate no detections of concern. See also Env-Sw 1504.05(a)(2) above.

***NHDES Assessment and Determination:***

***Based on the analytical results provided by the applicant, NHDES concurs with the applicant’s assessment that use of RGC as intended would be unlikely to pose a greater risk to the environment, public health and safety than does the use of an existing comparable non-waste-derived product. See also Attachment B, “Assessment of Analytical Results by NHDES Residuals Management Section,” contained herein.***

***With conditions previously identified herein, this criterion is met.***

- (b) “Disposal of the waste-derived product shall not pose a greater risk to the environment, public health and safety than would be posed by directly disposing of the waste from which the product is produced.”

<sup>1</sup> Phone conversation with April Sargent, RMI Compliance Project Assistant. November 15, 2019.

Application Review Summary			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705
			Page 12 of 13

The applicant states in Section 8 of the application that RGC will be used as-is, without further preparation or processing and asserts that, because of this, there is no greater risk associated with the disposal of RGC as a waste-derived product than would be posed by directly disposing of the waste from which the product is produced.

**NHDES Assessment and Determination:**

***Because the waste-derived product and the waste from which it is derived are one and the same, NHDES concurs with the applicant's assessment. This criterion is met.***

**Overall NHDES Determination:**

***Based on a review of the information provided and the criteria specified in Env-Sw 1504.04 through Env-Sw 1504.06, the criteria for certification of this product are met.***

<b>Application Review Summary</b>			
<b>Applicant</b>	Resource Management, Inc. (RMI)	<b>Reviewed by</b>	Michael Nork
<b>Location</b>	Statewide	<b>Checked by</b>	Jaime M. Colby, P.E.
<b>Permit No.</b>	Not Applicable	<b>Review Date</b>	Completed March 13, 2020
<b>Application</b>	To Certify a Waste-Derived Product for Distribution & Use: Rousselot Gel Cake as a Soil Amendment	<b>Activity No.</b>	2019-42705
			Page 13 of 13

**ATTACHMENT B – Assessment of Analytical Results by NHDES Residuals Management Section**

**Application to Certify a Waste-Derived Product for Distribution and Use  
Rousselot Gel Cake (RGC) as a Soil Amendment  
Resource Management, Inc.  
March 13, 2020**

**(Attachment on Following Page)**



The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

December 06, 2019

**VIA EMAIL**

Michael Nork, Environmental Analyst  
New Hampshire Department of Environmental Services  
29 Hazen Drive  
Concord, NH 03301  
Email: [michael.nork@nh.des.gov](mailto:michael.nork@nh.des.gov)

Re: Application to Certify a Waste-Derived Product – “Rousselot Gel Cake” – Sludge Test Data Review

Dear Mr. Nork:

The New Hampshire Department of Environmental Services (NHDES) Residuals Management Section (RMS) has reviewed the test data submitted on September 13<sup>th</sup>, 2019 to the Solid Waste Management Bureau (SWMB) within NHDES from samples taken on August 8<sup>th</sup>, 2019. Resource Management Inc. and Rousselot Peabody, Inc. submitted testing for constituents itemized in Table 809-2 of Env-Wq 809: Sludge Quality Certification upon request from the SWMB.

Upon review of this sampling event on 08/08/2019, RMS has determined that all constituents under Table 809-2 in Env-Wq 809.06 including 9 Per- and Polyfluoroalkyl Substances recently added to the testing program have been tested for and meet regulatory and screening standards set by NHDES. RMS acknowledges that the test report only reflects a single sampling event. RMS suggest that these constituents be tested for on a scheduled basis to ensure the sludge being distributed in New Hampshire doesn't exceed regulatory or screening standards outlined in Env-Wq 809 and the Guidance Values set for sludge.

For any questions or comments, please contact Anthony F. Drouin, Sludge and Septage Coordinator in the Residuals Management Section of NHDES at 603-271-2818 or [anthony.drouin@des.nh.gov](mailto:anthony.drouin@des.nh.gov).

Best Regards,

Anthony F. Drouin  
Sludge and Septage Coordinator - Residuals Management Section  
Water Division - Wastewater Engineering Bureau, NHDES

Cc/Ec: Ray Gordon, RMS Administrator, NHDES