Patent and Trademark Office

CH \$40.00 190743 13202011

RECORDATION FORM COVER SHEET PATENTS ONLY

ATTY Ref/1/ocket No.: 3000.000031		
· · · · · · ·		
	ing. Places record the arrached original documents or con	ov tn

ercof. To the Director of the U.S. Patent and Trademark Office: Please recor Name of conveying party(ies): Name and address of receiving party(ies): Bruce Dale, Bryan Ritchic, Derek Marshall Name: Board of Trustees of Michigan State University Additional name(s) of conveying party(ics) attached? Street Address: 450 Administration Building []Yes [X]No City: East Lansing State: MI Zip: 48824-1046 Nature of conveyance: Country: United States of America Additional name(s) & address(es) attached? []Yes [X]No [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: August 22, 2011, August 26, 2011, August 29, 2011 Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: B. Patent No.(s) A. Patent Application No.(s) Serial No. 13/202,011, filed August 17, 2011 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence 7. Total fee (37 CFR 3.41):\$ 40.00 concerning document should be mailed: []Enclosed Name: Barbara J. Clark [X]Authorized to be charged to deposit account Address: 19-0743 Schwegman, Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743 Minneapolis, MN 55402--0938 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Barbara J. Clark/Reg. No. 38,107 Name of Person Signing Total number of pages including cover sheet: 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450

Alexandria, VA 22313-1450

PATENT REEL: 026884 FRAME: 0145

Attorney Docket No. 3000,008US1 Client Ref. No. TEC2009-0052-01US

ASSIGNMENT

WHEREAS, We, <u>Bruce Dale</u>, residing at <u>2865 Hagadorn Road</u>, <u>Mason</u>, <u>MI 48854</u>, and <u>Bryan Ritchie</u>, residing at <u>2725 Loon Lane</u>, <u>Okemos</u>, <u>MI 48864</u>, and <u>Derek Marshall</u>, residing at <u>1603 N. Harrison Avenue</u>, <u>East Lansing</u>, <u>MI 48823</u>, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on **August 17**, **2011**, which application was assigned U.S. patent application serial number <u>13/202,011</u>, and is entitled <u>PRETREATED DENSIFIED BIOMASS PRODUCTS AND METHODS OF MAKING AND USING SAME:</u>

WHEREAS, We are governed by Michigan State University (hercinafter "MSU") Patent Policy (www.hr.msu.edu/documents/facacadhandbooks/facultyhandbook/patents.htm), and therefore understand that, in exchange for GOOD AND VALUABLE CONSIDERATION provided by MSU, the receipt, sufficiency and adequacy of which are hereby acknowledged, the aforementioned new and useful inventions and improvements are considered "University Inventions." As such, the undersigned does hereby:

SELL, ASSIGN AND TRANSFER to Board of Trustees of Michigan State University (the "Assignee"), a corporation of the State of Michigan, having a place of business at 450 Administration Building, East Lansing, MI 48824-1046, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified patent application(s), and which may be further identified above; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements: and specifically including the right to claim priority to the identified patent application(s), including the right to file foreign applications under the provisions of any convention or treaty;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, after execution of this Assignment;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

PATENT REEL: 026884 FRAME: 0146

Docket No. 3000 008US1

ASSIGNMENT Client Ref. No. TEC2009-0052-01US Assignors: Bruce Dale et al. Serial Number: 13/202.011

Title: PRETREATED DENSIFIED BIOMASS PRODUCTS AND METHODS OF MAKING AND USING SAME

Page 2 of 5

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

PATENT REEL: 026884 FRAME: 0147

Docket No: 3000.008US1

ASSIGNMENT Client Ref. No. TEC2009-0052-01US Assignors: Bruce Dale et al Serial Number: 13/202,011

Tide: PRETREATED DENSIFIED BIOMASS PRODUCTS
AND METIODS OF MAKING AND USING SAME

Page 3 of 5

IN TESTIMONY WHEREOF, I have hereunto set my hand this day of the state of the stat

STATE OF MI

On this <u>Jacob day</u> of <u>August</u>, 20 11 before me personally appeared Bruce <u>Dale</u>, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

LISA BRADLEY
NGEM PUBLIC - STATE OF MICHIGAN
COUNTY OF SHIAWASSEE
My Commission Expires Sept. 22, 2011
Acting in the County of Shiawassee

Notary Public LISA BRADLEY

Expres Sept-28,2011 Acting in Inghan C

ASSIGNMENT

Client Ref No. TEC2009-0052-01US

Chericket No. 18C2009-0032-0034
Assignors: Bruce Oale et al.
Serial Number 13/202,011
Title: PRETREATED DENSIFIED BIOMASS PRODUCTS
AND METHODS OF MAKING AND USING SAME

IN TESTIMONY WHEREOF, I have hereunto set my hand this 26th day of				
August , 2011.	Bro	Att		
STATE OF Michigan.	,	Bryan Ritchie		
COUNTY OF Incham				

On this 20 day of August 20 before me personally appeared Bryan Ritchie, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

CATHERINE JOHNSON
Notary Public, State of Michigan
County of Ingham
My Commission Expires 09-10-2014
Acting III III

Docket No: 3000,008US1

ASSIGNMENT Client Ref. No. TEC2009-0052-01US

Assignors Bruce Dale et al Serial Number: 13/202,011

Title: PRETREATED DENSIFIED BIOMASS PRODUCTS AND METHODS OF MAKING AND USING SAME

IN TESTIMONY WHEREOF, I have hereunto set my hand this 25

, 20 11.

Derek Marshall

Docket No: 3000.008US1

STATE OF NEW

COUNTY OF DOMESSET

On this 29 day of 40, 2016 before me personally appeared Derek Marshall, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

NOTARY PUBLIC OF NEW JERSEY Commission Expires 12/2/2013

PATENT REEL: 026884 FRAME: 0150

RECORDED: 09/09/2011