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D&B Business Information Report: ALGENOL BIOFUELS INC.

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ATTN: Carlo DiFranco Report Printed: DEC 16 2009

==========

* * * BUSINESS SUMMARY * * *

==========

ALGENOL BIOFUELS INC.
28100 Bonita Grande Dr Ste 200
Bonita Springs, FL 34135

This is a single location.		D-U-N-S® Number:	80-039-9904
Telephone:	239 498-2000	D&B Rating:	DS
Chief executive:	PAUL WOODS, PRES		
		D&B PAYDEX®:	
Year started:	2007		
		12-Month D&B	73
Employs:	1	PAYDEX:	
SIC:	8731	When weighted by dollar amount, payments to suppliers average 11 days beyond terms.	
Line of business:	Commercial physical research		
		Based on trade collected over last 12 months.	

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* * * SUMMARY ANALYSIS * * *

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D&B Rating: DS

The DS rating indicates that the information available does not permit D&B to classify the company within our rating key.

Applicant Name___ Algenol Biofuels Inc. _____

Announcement Number_____ DE-FOA-000009____

Representation of Limited Rights Data and Restricted Computer Software

(a) Any data delivered under an award resulting from this announcement is subject to the Rights in Data – General or the Rights in Data – Programs Covered Under Special Data Statutes clause (See Intellectual Property Provisions at http://www.gc.energy.gov/financial_assistance_awards.htm). Under these clauses, the Recipient may withhold from delivery data that qualify as limited rights data or restricted computer software. As an aid in determining the Government's need to include Alternate I and/or Alternate II in these clauses, which allow for delivery of limited rights data and/or restricted computer software, the applicant must complete paragraph (b) below to either state that none of the data involved in the proposed work effort qualify as limited rights data or restricted computer software, or identify, to the extent feasible, which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in this application is not determinative of the status of such data should an award be made.

(b) The applicant has reviewed the proposed work effort and the requirements for the delivery of data or software and states:

☐ None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.

☒ Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

The data contained on pages 6-10 of the Project Narrative; pages 3-6 and 12-13 of Environmental Questionnaire; pages 1-10, 16-18 and 20 of the Business and Commercialization Plan; and pages 2-4 of the IP Statement and all information contained the files named Lifecycle Energy and Greenhouse Gas Emissions, SF424A, Budget, Subaward Budget Files, Process Flow Diagram, Project Management Plant and Project Executive Plan have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award.

All existing data on our process, procedures and know-how embody trade secrets, commercial and financial data that are confidential and privileged.

Paragraphs in the application's respective files that are preceded by an asterisk (*) contain proprietary information that Algenol Biofuels requests not be released to persons outside the Government, except for the purposes of review and evaluation.

Note: "limited rights data" and "restricted computer software" are defined in provision "Rights in Data – General."

PMC 410.1
(07/06)

U.S. DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CENTER

FINANCIAL INFORMATION

PROVIDE ALL INFORMATION REQUESTED ON THIS FORM

Applicant: **Algenol Biofuels Inc.**

Project Title: **Pilot-Scale Integrated Biorefinery Operations for Producing Ethanol from Hybrid Algae**

Announcement/Award No: **DE-FOA-0000096 /**

1. Have you had prior Federal awards? ☐ Yes ☒ No

2. Have you had an outside audit or an A-133 audit? ☒ Yes ☐ No
If yes, please provide a copy of the A-133 or outside audit (electronic preferred).

INFORMATION FOR DETERMINING COGNIZANT AGENCY/OFFICE

3. Applicant's fiscal year end date is December 31st

4a. Identify Cognizant **Federal Agency** (agency providing the preponderance of Federal funding), and provide Agency name, a point of contact, phone number, and e-mail.

Agency: Department of Energy
Point of Contact: Christy Sterner
Phone: 303-275-4720
E-mail:Christy.sterner@go.doe.gov

4b. To assist our office in validating Cognizant **Federal Agency** (4a), please provide following information for the 5 highest dollar award value for current Federal contracts, grants or awards (do not include sub-awards). (State Agencies and Universities can skip 4b)

Contract/Award #	Awarding Agency	Awarding Office	Start Date	End Date	Total Value

5a. If applicant has current DOE awards, identify Cognizant **DOE Office** (office providing the preponderance of DOE funding), and provide DOE office name, a point of contact, phone number, and e-mail.

DOE Office:
Point of Contact (Contracting Officer):
Phone:
E-mail:

5b. To assist our office in validating Cognizant **DOE Office** (5a), please provide following information for the 5 highest dollar value awards for current DOE contracts, grants or awards (do not include sub-awards). (State agencies and Universities can skip 5b)

DOE Contract/Award #	DOE Awarding Office	Start Date	End Date	Total Value

FINANCIAL MANAGEMENT SYSTEM

To qualify for Financial Assistance, compliance with 10 CFR 600.121 - Higher Education, Hospitals, and Other Non-Profit Organizations, 10 CFR 600.220(b) - State and Local Governments or 10 CFR 600.311 - For-Profit Organizations is required. Please check applicable boxes below.

☐ The Financial Management System is in compliance with 10 CFR 600.121, 10 CFR 600.220(b), or 10 CFR 600.311.

☒ I do not know if my Financial Management System is in compliance with 10 CFR 600.121, 10 CFR 600.220(b), or 10 CFR 600.311. If this block is checked, complete the survey below.

Accounting System Survey

	Yes	No	NA
1. Is your Accounting System in accordance with Generally Accepted Accounting Principles applicable to the circumstances?	☒	☐	☐
2. Accounting System provides for:			
a. Segregation of direct costs from indirect costs.	☒	☐	☐
b. Identification and accumulation of direct costs by project.	☒	☐	☐
c. A logical and consistent method for the allocation of indirect costs to intermediate and final cost objectives. (Project is final cost objective)	☒	☐	☐
d. Accumulation of costs under general ledger control.	☒	☐	☐
e. A timekeeping system that identifies employees' labor by intermediate and final cost objectives.	☐	☐	☒
f. A labor distribution system that charges direct and indirect labor to appropriate cost objectives.	☒	☐	☐
g. Interim (at least monthly) determination of costs charged to a project through routine posting of books of account.	☒	☐	☐
h. Excluding costs charged to Government projects which are not allowable in terms of FAR 31, Contract Cost Principles and Procedures, or other provisions.	☒	☐	☐
i. Identification of costs by project line item and by units (as if each unit or line item were a separate project) if required by the proposed award.	☒	☐	☐
3. Is the Accounting System designed, and are the records maintained in such a manner that adequate, reliable data are developed for use in developing cost proposals?	☒	☐	☐
4. Is the Accounting System currently in full operation?	☒	☐	☐

Redacted

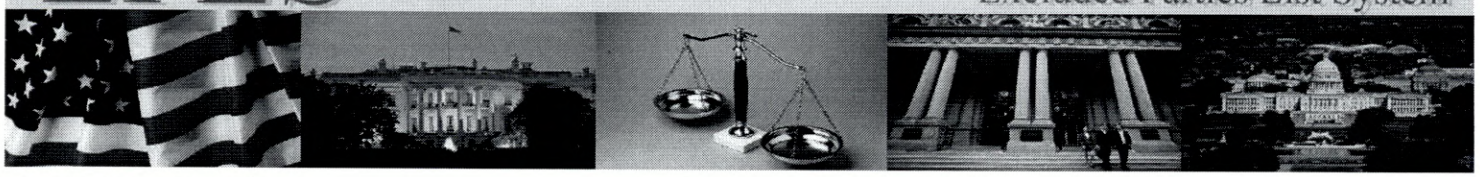
Exemption 4

Redacted

Exemption 4

EPLS

Excluded Parties List System



Search - Current Exclusions

> Advanced Search
> Multiple Names
> Exact Name and SSN/TIN
> MyEPLS
> Recent Updates

View Cause and Treatment Code Descriptions

> Reciprocal Codes
> Procurement Codes
> Nonprocurement Codes

Agency & Acronym Information

> Agency Contacts
> Agency Descriptions
> State/Country Code Descriptions

OFFICIAL GOVERNMENT USE ONLY

> Debar Maintenance
> Administration
> Upload Login

EPLS Search Results

Search Results for Parties Excluded by

Exact Name : Algenol Biofuels, Inc. or Smith, Craig or The Dow Chemical Company or Georgia Institute of Technology or Membrane Technology and Research, Inc.

As of 18-Dec-2009 12:38 PM EST

Save to MyEPLS

Your search returned no results.

It is further recommended that you perform a **Partial Name** search on any word of the name to further confirm the eligibility status of the party. An additional **Partial Name** search might be necessary because an **Exact Name** match will not be found if the spelling or format of the name you are searching for is different than the name of the exclusion in EPLS.

Back New Search Printer-Friendly

Resources

> Search Help
> Public User's Manual
> FAQ
> Acronyms
> Privacy Act Provisions
> News

Reports

> Advanced Reports
> Recent Updates
> Dashboard

Archive Search - Past Exclusions

> Advanced Archive Search
> Multiple Names
> Recent Updates

Contact Information

> For Help: Federal Service Desk

Memorandum for File

From: Matthew A. Barron, Director, Financial Assistance (RE)
James P. Damm, Director, Financial Assistance (EE)

Concurrence: Derek Passarelli, Legal Counsel
James Spaeth, Director, OCPM

Carolyn Elam for Jim Spaeth

Subject: Approval for Processing Conditional Awards with American Recovery and Reinvestment Act of 2009 (ARRA) Funds

Date: December 18, 2009

Because of the unprecedented exigencies dictated by the American Recovery and Reinvestment Act of 2009 (ARRA), this memorandum approves the use of conditional awards to expedite competitively selected new awards.

Given the ARRA priorities, it is understood that some ARRA awards may have full conditions with no release of funds, and some ARRA awards may have partial restrictions on the awards. Given the urgency of completing these ARRA awards, Contracting Officers, with their OCPM Project Officers, may determine the extent to which restrictions or special provisions will apply to these awards.

For any of these ARRA awards that are awarded conditionally, OAFA and OCPM will continue to work with the recipients to lift the conditions on the ARRA awards as soon as practicable.

December 4, 2009

Mr. Craig Smith
Algenol Biofuels Inc.
28100 Bonita Grande Drive, Suite 200
Bonita Springs, FL 34135-6220

Dear Mr. Craig Smith:

SUBJECT: Biomass Funding Opportunity Announcement DE-FOA-0000096, Recovery Act - Demonstration of Integrated Biorefinery Operations

Evaluation of your application received in response to the subject Funding Opportunity Announcement has been completed. After a careful review, I am pleased to inform you that your application has been selected for negotiations leading to an award.

In order to expedite the negotiation process, further information is needed to clarify and supplement your application. Please submit the following information to Molly Hames, Specialist, by January 4, 2010, if the information was not previously provided, or if any information has changed.

1. Complete each of the following required forms, which are available on the Project Management Center website at https://www.eere-pmc.energy.gov/Forms.aspx

    a. Application for Federal Assistance, SF 424;
    b. Budget Information – Non Construction Programs, SF 424A or SF 424 (R&R);
    c. Financial Assistance Pre-Award Information Sheet, PMC 121.1
    NOTE: Complete the PMC 121.1 form first and promptly email it under separate cover to me at the email address listed below;
    d. Financial Information, PMC 410.1;
    e. Representation of Limited Rights Data and Restricted Computer Software;
    f. Environmental Checklist, EF1. (This form should be completed on line at https://www.eere-pmc.energy.gov/nepa.asp)
    g. Statement of Project Objectives;
    h. Commitment Letters from Third Parties Contributing to Cost Sharing;
    i. Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the guidelines in the PMC 400.2 form.

During fiscal year 2008, this office will implement a new electronic, paperless procurement system called STRIPES. Upon implementation of STRIPES, ALL organizations currently doing or wanting to do business with this office MUST BE registered with the Central Contractor Registration (CCR) and with FedConnect. As a result, it is imperative that you read and react to information provided in the document entitled "CCR and FedConnect Registrations" on the above referenced PMC website.

The Financial Assistance Regulations, found at https://www.eere-pmc.energy.gov/forms.aspx, and the OMB Circulars, found at http://www.whitehouse.gov/OMB/circulars/index.html will assist you in understanding your requirements as an award Recipient.

You may incur pre-award costs 90 calendar days prior to award without prior approval or more than 90 calendar days with the prior approval of DOE. All pre-award costs are incurred at your risk (i.e., DOE is under no obligation to reimburse such costs if for any reason you do not receive an award or if the award is less than anticipated and inadequate to cover such costs). All costs must be allowable in accordance with the applicable cost principles.

If you will be unable to provide the information by the date requested or have any questions concerning the requested information, please contact Molly Hames, at 303-275-4864, molly.hames@go.doe.gov.

All projects receiving financial assistance from DOE must be reviewed under NEPA, for potential environmental impacts of the project. Funding for an award is contingent upon successfully completing the negotiations and obtaining the NEPA determination. You are restricted from taking any action using federal funds or your cost share funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

This letter constitutes your debriefing for this Funding Opportunity Announcement.

On behalf of the Department of Energy, I would like to express a sincere appreciation of your interest and participation in developing the US bioindustry and look forward to initiating this worthwhile project.

Sincerely,

Fred Gerdeman

Fred Gerdeman
Merit Review Committee Chairperson

PMC 112.2
(08/27/2009)

U.S. DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CENTER

REQUEST FOR REVIEW

☐ Normal Review ☒ Expedited Review Date: 01/06/2010

Justification for Expedited Review ARRA Fully Conditional Award Deadline

Award Number: DE-EE0002867 FOA Number, if new award: DE-FOA-0000096

Item(s) For Review:
Fully Conditional Award

Total Project: REDACTED EXEMPTION 4
Federal Funds: $ 25,000,000

Specialist Listed on Award: Molly Hames Phone: 303-275-4864

Specialist Who Prepared Award: Phone:

Note to Specialist: Send 72 Hour Congressional Notification for FOA action reviews, as required.

☒ PEER REVIEW

Comments: See separate sheet

Signature: REDACTED EXEMPTION 5 - deliberative process Date: 1/8/10

☐ CONTRACTING OFFICER REVIEW

☐ Approved ☒ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments: See attached

Signature: Michael Sheldon Date: JAN 11 2010

☐ INDEPENDENT REVIEW

Comments:

Signature: Date:

☐ LEGAL REVIEWS – SEE PAGE 2 **(Delete page 2 if not required)**

☐ OAFA BRANCH CHIEF REVIEW

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: Date:

☐ DIRECTOR FINANCIAL ASSISTANCE REVIEW – SEE PAGE 3 **(Delete page 3, if not required)**

☐ HEAD OF CONTRACTING ACTIVITY REVIEW – SEE PAGE 3 **(Delete page 3, if not required)**

PEER REVIEW

DE-EE0002867/000, Algenol Biofuels

Review Date: January 8, 2010

Reviewer:

REDACTED
EXEMPTION 5 –
deliberative process

ASSISTANCE AGREEMENT

1. Award No.	2. Modification No.	3. Effective Date	4. CFDA No.
DE-EE0002867		01/29/2010	81.087

5. Awarded To
ALGENOL BIOFUELS INC.
Attn: GREGORY SCHLICHT
28100 BONITA GRANDE DR STE 200
BONITA SPRINGS FL 341356220

6. Sponsoring Office
Golden Field Office
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd.
Golden CO 80401

7. Period of Performance
01/29/2010
through
12/27/2013

8. Type of Agreement
- [ ] Grant
- [x] Cooperative Agreement
- [ ] Other

9. Authority
109-58 Energy Policy Act (2005)
111-5 Recovery Act (2009)

10. Purchase Request or Funding Document No.

11. Remittance Address
ALGENOL BIOFUELS INC.
Attn: GREGORY SCHLICHT
28100 BONITA GRANDE DR STE 200
BONITA SPRINGS FL 341356220

12. Total Amount
Govt. Share: $0.00
Cost Share : $0.00
Total : $0.00

NO REQ

13. Funds Obligated
This action: $0.00
Total : $0.00

14. Principal Investigator
Craig Smith
Phone: 239-498-2000

15. Program Manager
Carol Christine Sterner
Phone: 303-275-4720

16. Administrator
Golden Field Office
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd.
Golden CO 80401-3393

17. Submit Payment Requests To

18. Paying Office

19. Submit Reports To

20. Accounting and Appropriation Data
See Schedule

21. Research Title and/or Description of Project
RECOVERY ACT: INTEGRATED PILOT - SCALE BIOREFINERY FOR PRODUCING ETHANOL FROM HYBRID ALGAE

For the Recipient		For the United States of America	
22. Signature of Person Authorized to Sign		25. Signature of Grants/Agreements Officer	
23. Name and Title	24. Date Signed	26. Name of Officer Michael A. Schledorn	27. Date Signed 12/28/2009

Working Copy

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-EE0002867	2	3

NAME OF OFFEROR OR CONTRACTOR
ALGENOL BIOFUELS INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	DUNS Number: 800399904 The administrative office (administrative contracting activity) for this award/modification/amendment is 03601 from STRIPES. The administrative office (administrative contracting activity) code is needed by the contractor/recipient for reporting to FederalReporting.gov concerning awards made with funding from the American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act). "Electronic signature or signatures as used in this document means a method of signing an electronic message that-- (A) Identifies and authenticates a particular person as the source of the electronic message; (B) Indicates such person's approval of the information contained in the electronic message; and, (C) Submission via FedConnect constitutes electronically signed documents." 1. This is a conditional award, comprised of this Assistance Agreement and the Special Terms and Conditions. Upon successful completion of negotiations, this award will be modified to lift its conditional status, to revise the Special Terms and Conditions, and to add additional attachments, such as Attachment 1, Intellectual Property Provisions; Attachment 2, Statement of Project Objectives; Attachment 3, Federal Assistance Reporting Requirements; and Attachment 4, Budget Information - Non Construction Programs. 2. The award was prepared using the proposed budget information in the Recipient¿s application. The Special Terms and Conditions, Provision 1 of the award states DOE will not release the funding obligated by this award until the Awardee submits a full application and subsequently requested supplemental information, the Contracting Officer reviews and approves the Awardee's application and supplemental information, and completion of negotiations. Performance against this award is, therefore, at the Recipient¿s own risk, and payments for costs incurred for the Recipient¿s project will not be made until completion of negotiations. Continued ...				

CO Review

By: Michael Schledorn

Date: January 11, 2010

File: Algenol Biofuels-DE-EE0002867.000

Item:

REDACTED
EXEMPTION 5 - deliberative process

Excellent award! Thank you. Mike

ASSISTANCE AGREEMENT

1. Award No.	2. Modification No.	3. Effective Date	4. CFDA No.
DE-EE0002867		01/29/2010	81.087

5. Awarded To	6. Sponsoring Office	7. Period of Performance
ALGENOL BIOFUELS INC. Attn: GREGORY SCHLICHT 28100 BONITA GRANDE DR STE 200 BONITA SPRINGS FL 341356220	Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401	01/29/2010 through 12/31/2014

8. Type of Agreement	9. Authority	10. Purchase Request or Funding Document No.
☐ Grant ☒ Cooperative Agreement ☐ Other	109-58 Energy Policy Act (2005) 111-5 Recovery Act (2009)	

11. Remittance Address	12. Total Amount	13. Funds Obligated
ALGENOL BIOFUELS INC. Attn: GREGORY SCHLICHT 28100 BONITA GRANDE DR STE 200 BONITA SPRINGS FL 341356220	Govt. Share: **$0.00** NO REQ Cost Share : $0.00 Total : $0.00	This action: **$0.00** Total : **$0.00**

14. Principal Investigator	15. Program Manager	16. Administrator
Craig Smith Phone: 239-498-2000	Carol Christine Sterner Phone: 303-275-4720	Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393

17. Submit Payment Requests To	18. Paying Office	19. Submit Reports To

20. Accounting and Appropriation Data
See Schedule

21. Research Title and/or Description of Project
RECOVERY ACT: INTEGRATED PILOT - SCALE BIOREFINERY FOR PRODUCING ETHANOL FROM HYBRID ALGAE

For the Recipient		For the United States of America	
22. Signature of Person Authorized to Sign		25. Signature of Grants/Agreements Officer	
23. Name and Title	24. Date Signed	26. Name of Officer Michael A. Schledorn	27. Date Signed 12/28/2009

Working Copy

PMC 128.1
06-18-2009

U.S. Department of Energy
Project Management Center

FINANCIAL ASSISTANCE AWARD
INDEX and CHECKLIST
(BUYER USE ONLY)

Award #:	**DE-EE0002867/000**		
Recipient Name:	**Algenol Biofuels, Inc.**		
FOA #:	**DE-FOA-0000096**		
Specialist:	**Molly Hames**	**Phone:**	303-275-4864
Contracting Officer:	**Michael Schledorn**	**Phone:**	303-275-4720
Project Officer:	**Christy Sterner**	**Phone:**	303-275-4993

Numbers are switched

Action Item	*Indicate Completion of Action Item by inserting a date in the applicable box below*	
1	Verify Recipient's registration with the Central Contractor Registration (CCR) (http://www.ccr.gov)	CCR Registration Valid through: 05/28/2010
2	Verify Recipient's registration with FedConnect	Registration Confirmed on: 12/22/2009
3	Add Recipient to ASAP Enrollment Matrix; if applicable	Recipient added to Enrollment Matrix on: 12/22/2009
4	Route Award for "Review" to GO Finance Point of Contact (Debbie Reynolds) 5 business days prior to issuing award; for the purpose of confirming Supplier/Site set-up in STARS	STARS Supplier/Site set-up confirmed on: Completed in Bulk

STRIPES Index #	Supporting Document		Form #	applicable	not applicable	Supporting Document Naming Convention	pdf. required
AWD-001	Award Index and Checklist		PMC 128.1	X		**AWD-001 AWDChecklist**	
AWD-002	Selection Statement		n/a	X		**AWD-002 SelStat**	.pdf
AWD-003	Determination of Non-Competitive Financial Assistance (DNFA) Documentation (include Request for Review PMC.112.2)		PMC 109.x		X	**AWD-003 DNFADocs**	batch .pdf
AWD-004	HCA Approval (Total Project Value greater than $25M and less than $50M) (Include Request for Review PMC.112.2)		n/a	X		**AWD-004 HCAApvl**	.pdf
AWD-005	HQ Business Clearance Documentation (Total Project Value greater than or equal to $50M)						
	AWD-005a	HQ Business Clearance Worksheet	PMC 107.1		X	**AWD-005 HQBusClrDocs**	batch .pdf
	AWD-005b	HQ Business Clearance Transmittal Letter(s)	PMC 107.4		X		
	AWD-005c	HQ Business Clearance; Correspondence received from HQ	n/a	X			
AWD-006	Congressional Affairs Notification		DOE F 4220.10	X		**AWD-006CongNotification**	.pdf
AWD-007	Successful Application Documentation (Prime) - Algenol Biofuels, Inc						
	AWD-007a	Application for Federal Assistance (Final SF-424 & Project Narrative)	SF-424	X		**AWD-007a AppDocs (PRIME)**	batch .pdf
		SOPO	n/a	X			
		Resumes	n/a		X		
		SF-424A Budget Information	SF-424A	X			
		Budget Justification	PMC 123.1	X			
		Disclosure of Lobbying Activities	SF-LLL		X		
		Cost Share Commitment Ltrs from Third Parties	n/a	X			
		Environmental Questionnaire	n/a	X			
		Project Management Plan (PMP)	n/a	X			
		Historical, Current, and Planned Technical and Financial Data	n/a	X			
		Business and Commercialization Plan	n/a	X			
		Pro forma	n/a	X			
		Intellectual Property (IP) Statement and Supporting Documentation	n/a	X			
		Process Flow Diagram and Supporting Data	n/a	X			
		Life-Cycle GHG Emission Reduction Data	n/a	X			
		Petroleum Displacement Analysis	n/a	X			
		Project Execution Plan (PEP)	n/a	X			
	Successful Application Documentation (Sub #1) Georgia Institute of Technology						

or indirectly in the interest of an employer receiving covered funds; or with respect to covered funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the federal government.

Recipient means any entity that receives Recovery Act funds directly from the Federal government (including Recovery Act funds received through grant, loan, or contract) other than an individual and includes a State that receives Recovery Act Funds.

Special Provisions

A. Flow Down Requirement

Recipients must include these special terms and conditions in any subaward.

B. Segregation of Costs

Recipients must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects.

C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may be used by any State or local government, or any private entity, for any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool.

D. Access to Records

With respect to each financial assistance agreement awarded utilizing at least some of the funds appropriated or otherwise made available by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, any representative of an appropriate inspector general appointed under section 3 or 8G of the Inspector General Act of 1988 (5 U.S.C. App.) or of the Comptroller General is authorized --

(1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract that pertain to, and involve transactions that relate to, the subcontract, subcontract, grant, or subgrant; and

(2) to interview any officer or employee of the contractor, grantee, subgrantee, or agency regarding such transactions.

E. Publication

more to next page

Hames, Molly

-----Original Message-----
From: Barron, Matt
Sent: Monday, December 28, 2009 2:16 PM
To: Schledorn, Michael; Gorin, Margo; Carabajal, Stephanie; Wozniak, Genevieve; Kiyota, Nancy; Wilson, Sara; Buck, Michael; Brodie, Pamela; Kingsley, Robert; Wise, Melissa; Lucero, Andrea
Cc: Harris, Jamie; Passarelli, Derek; Damm, James
Subject: FW: HCA Approval memo

FA Division Director review and approval of the awards over $25 Mil. that are waived by the HCA in the attached Memorandum are hereby waived. Any review and approval of resulting definitizations by the HCA must be reviewed and approved by a FA Division Director.

Matt Barron
Golden Field Office
Office of Acquisition and Financial Assistance
(303) 275-4787
(303) 275-4788 (fax)
Renewable Energy - A gift from nature our Nation grants to itself...learn more at http://www.eere.energy.gov/

Department of Energy
Washington, DC 20585

I certify that the funds stated herein are available for obligation and the work scope is consistent with the intent of Congress.

12/23/09

David J. Smith
Lead Budget Analyst, EE-3B

FED 10-5069 DEC
ARRA FUNDS

MEMORANDUM FOR: Rita Wells, Executive Director for Field Operations
Golden Field Office (GO)

SUBJECT: FY 2010 Biomass Program Approved Funding for Golden Field Office (GO)

In accordance with the approved EERE Biomass Program FY 2010 spend plan, budget authority of $608,598,927 in operating expenses is authorized for obligation and expenditure in accordance with program guidance as indicated below. Any required changes must be approved in writing by the appropriate headquarters program manager and budget execution staff. Field transfers must be coordinated through the Corporate Planning System (CPS). Funding authorized in this letter is not approved for support service contracts; either as a prime or subcontract award. The field AFP recipient of the funds is responsible for reporting all funding obligations and costs to the Project Management Center and headquarters. The field AFP recipient must maintain obligations and cost data at the agreement level and the data must be made available to EERE.

PROGRAM GUIDANCE

Program Activity & Key Activity	B&R Code-Fund Value-Program Code	BA($)
Biomass Program Thermochemical Platform R&D	BM0101010-05794-1004170 (2009)	$33,818,814
Biomass Program Bioconversion Platform R&D for Sugars	BM0101020-05794-1004171 (2009)	$10,692,095
Biomass Program Feedstocks Infrastructure	BM0102030-05794-1004172 (2009)	$33,344,378

Carryover funding in the amount of $77,855,287 is authorized for BM0101010-05794-1004170-Thermochem (2009), BM0101020-05794-1004171-Bioconversion (2009), and BM0102030-05794-1004172-Feedstocks (2009). These funds are made available for Solicitation #20475 - *B3 (b) GFO - Algal and Advanced Fungible Biofuels Consortia (Project 2004020)*. This funding supports a Recovery Act solicitation comprised of two major topic areas. The intended purpose of this FOA is to serve three primary goals of EERE: 1) increase the viability and deployment of renewable energy technologies, thereby 2) spurring the creation of a domestic bio-industry, resulting in 3) a dramatic reduction in dependence on imported oil. Under this FOA, DOE will issue awards to Consortia that synergistically use their unique capabilities to expedite the

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development of biomass-based fuel production pathways. These teaming efforts are expected to involve specific scientific, engineering, system design, analysis, and project management disciplines that can work together effectively to accomplish the stated project objectives. Such partnerships should include an appropriate mix of U.S. industry, academia, and government and/or non-government laboratories, and could include foreign entities with the appropriate skill sets. Additionally, these partnerships will seek to utilize "best-in-class" technical approaches. DOE is not prescribing a specific number of team members, team structure, or mix of organization types. It will be up to the Consortia to determine the appropriate mix of technical partners. The two topic areas are as follows: (1) Algal Biofuel Consortia for research and development to investigate the potential for algae to commercially produce a variety of biofuels, such as renewable gasoline, diesel or jet fuel; and, (2) Advanced Infrastructure Compatible Biofuels Consortia to develop new and innovative approaches for the conversion of biomass to advanced biofuels that are infrastructure compatible, distinct from current technical pathways for producing hydrocarbons from biomass feedstocks. The headquarters technical point of contact is Leslie Pezzullo who can be reached on (202) 586-1514. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	**B&R Code-Fund Value-Program Code**	**BA($)**
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$81,134,686

Carryover funding in the amount of $81,134,686 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20452 - *B2 - WBS 8.5.8.3 Commercial Scale Biorefinery Projects (Project 2004010)*. This funding supports an increased federal funding ceiling for two commercial scale integrated biorefinery projects that were competitively selected and awarded within the last two years, but which have encountered delays due to the state of the economy. This Recovery Act funding will serve to reduce risk of the development and deployment and allow for increased confidence by the lending community to provide debt financing the awardees. This will in turn allow them to meet their cost-share requirements and move these projects more rapidly beyond the initial phases of development into final engineering and construction. Ultimately, this will accelerate the timeline for start up and commissioning, and support the timely meeting to the EISA 2007 RFS targets. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	B&R Code-Fund Value-Program Code	BA($)
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$449,608,954

Carryover funding in the amount of $449,608,954 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20451 - *B1 - WBS 8.5.8.1 Integrated Biorefinery Pilot and Demonstration Scale FOA (Project 2004000)*. This funding supports awards associated with a solicitation issued under the Recovery Act, DE-FOA-0000096, for integrated biorefinery projects that have the necessary technical and economic performance data that validates their readiness for the next level of scale-up. These integrated biorefineries will produce, as their primary product, a liquid transportation fuel that supports, depending on topic area, meeting the advanced, renewable or advanced biofuels portion of the Energy Independence and Security Act of 2007 (EISA) Renewable Fuel Standards (RFS) or, depending on topic area, a bioproduct that substitutes for petroleum-based feedstocks and products. The six topic areas involve the design, construction, and/or operation of the following (as generally defined, and with acceptable feedstocks, fuels, and products specified by topic in the FOA): (1) a "pilot-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (2) a "pilot-scale" biorefinery to produce an "acceptable bioproduct"; (3) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (4) a "demonstration-scale" biorefinery to produce an "acceptable bioproduct" using a topic-specific "acceptable feedstock"; (5) a "pilot-scale" biorefinery using a topic-specific "acceptable feedstock" to produce an "acceptable biofuel" using an "acceptable feedstock"; or, (6) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock". A pilot-scale biorefinery project has been defined as a facility with a throughput of no less than one (1) dry tone of feedstock per day, and a demonstration-scale biorefinery must be designed and constructed for a throughput of at least fifty (50) dry tones of feedstock per day. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Should you have any questions regarding budget matters, please contact Leshawn Sutton who can be reached on (202) 586-9258.

Cathy Zoi, Assistant Secretary
Energy Efficiency and Renewable Energy

cc: Angela Sigala (GO)
Dolores (Dee) Adams (GO)
Edward Loudin (NETL)
Jami Shepherd (GO)
Jeffrey Steich (NETL)

Jennifer Surdi (GO)
Kevin Craig
Leslie Pezzullo
Marlys Kinsey (GO)
Valri Lightner

December 4, 2009

Mr. Craig Smith
Algenol Biofuels Inc.
28100 Bonita Grande Drive, Suite 200
Bonita Springs, FL 34135-6220

Dear Mr. Craig Smith:

SUBJECT: Biomass Funding Opportunity Announcement DE-FOA-0000096, Recovery Act - Demonstration of Integrated Biorefinery Operations

Evaluation of your application received in response to the subject Funding Opportunity Announcement has been completed. After a careful review, I am pleased to inform you that your application has been selected for negotiations leading to an award.

In order to expedite the negotiation process, further information is needed to clarify and supplement your application. Please submit the following information to Molly Hames, Specialist, by January 4, 2010, if the information was not previously provided, or if any information has changed.

1. Complete each of the following required forms, which are available on the Project Management Center website at https://www.eere-pmc.energy.gov/Forms.aspx

    a. Application for Federal Assistance, SF 424;
    b. Budget Information – Non Construction Programs, SF 424A or SF 424 (R&R);
    c. Financial Assistance Pre-Award Information Sheet, PMC 121.1
    NOTE: Complete the PMC 121.1 form first and promptly email it under separate cover to me at the email address listed below;
    d. Financial Information, PMC 410.1;
    e. Representation of Limited Rights Data and Restricted Computer Software;
    f. Environmental Checklist, EF1. (This form should be completed on line at https://www.eere-pmc.energy.gov/nepa.asp)
    g. Statement of Project Objectives;
    h. Commitment Letters from Third Parties Contributing to Cost Sharing;
    i. Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the guidelines in the PMC 400.2 form.

During fiscal year 2008, this office will implement a new electronic, paperless procurement system called STRIPES. Upon implementation of STRIPES, ALL organizations currently doing or wanting to do business with this office MUST BE registered with the Central Contractor Registration (CCR) and with FedConnect. As a result, it is imperative that you read and react to information provided in the document entitled "CCR and FedConnect Registrations" on the above referenced PMC website.

The Financial Assistance Regulations, found at https://www.eere-pmc.energy.gov/forms.aspx, and the OMB Circulars, found at http://www.whitehouse.gov/OMB/circulars/index.html will assist you in understanding your requirements as an award Recipient.

You may incur pre-award costs 90 calendar days prior to award without prior approval or more than 90 calendar days with the prior approval of DOE. All pre-award costs are incurred at your risk (i.e., DOE is under no obligation to reimburse such costs if for any reason you do not receive an award or if the award is less than anticipated and inadequate to cover such costs). All costs must be allowable in accordance with the applicable cost principles.

If you will be unable to provide the information by the date requested or have any questions concerning the requested information, please contact Molly Hames, at 303-275-4864, molly.hames@go.doe.gov.

All projects receiving financial assistance from DOE must be reviewed under NEPA, for potential environmental impacts of the project. Funding for an award is contingent upon successfully completing the negotiations and obtaining the NEPA determination. You are restricted from taking any action using federal funds or your cost share funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

This letter constitutes your debriefing for this Funding Opportunity Announcement.

On behalf of the Department of Energy, I would like to express a sincere appreciation of your interest and participation in developing the US bioindustry and look forward to initiating this worthwhile project.

Sincerely,

Fred Gerdeman

Fred Gerdeman
Merit Review Committee Chairperson

GRANTS.GOV™

Grant Application Package

Opportunity Title:	Recovery Act - Demonstration of Integrated Biorefinery
Offering Agency:	Golden Field Office
CFDA Number:	81.087
CFDA Description:	Renewable Energy Research and Development
Opportunity Number:	DE-FOA-0000096
Competition ID:	
Opportunity Open Date:	05/06/2009
Opportunity Close Date:	06/30/2009
Agency Contact:	ibr_foa@go.doe.gov

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

☐ **I will be submitting applications on my behalf, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.**

*** Application Filing Name:** Algenol Biofuels Inc. DE-FOA-0000096

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

- Application for Federal Assistance (SF-424)
- Project/Performance Site Location(s)
- Other Attachments Form

Optional Documents

- Disclosure of Lobbying Activities (SF-LLL)

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

Instructions

1 **Enter a name for the application in the Application Filing Name field.**

- This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
- You can save your application at any time by clicking the "Save" button at the top of your screen.
- The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

2 **Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.**

- It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.

- The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".

- To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.

- All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

3 **Click the "Save & Submit" button to submit your application to Grants.gov.**

- Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
- Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
- The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
- You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received:	4. Applicant Identifier:
Completed by Grants.gov upon submission.	

5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Algenol Biofuels Inc.

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
REDACTED EXEMPTION 6	800399904

d. Address:

* Street1:	28100 Bonita Grande Drive, Suite 200
Street2:	
* City:	Bonita Springs
County:	
* State:	FL: Florida
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	34135-6220

e. Organizational Unit:

Department Name:	Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	Dr.	* First Name:	Craig
Middle Name:			
* Last Name:	Smith		
Suffix:			

Title: Chief Operating Officer

Organizational Affiliation:

* Telephone Number:	239-498-2000	Fax Number:	

* Email: craig.smith@algenolbiofuels.com

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

Q: For-Profit Organization (Other than Small Business)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Golden Field Office

11. Catalog of Federal Domestic Assistance Number:

81.087

CFDA Title:

Renewable Energy Research and Development

*** 12. Funding Opportunity Number:**

DE-FOA-0000096

* Title:

Recovery Act - Demonstration of Integrated Biorefinery Operations

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

Integrated Pilot-Scale Biorefinery for Producing Ethanol from Hybrid Algae

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant: FL-014
* b. Program/Project: TX-014

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 01/01/2010
* b. End Date: 12/31/2014

18. Estimated Funding ($):

* a. Federal	25,000,000.00
* b. Applicant	REDACTED EXEMPTION 4
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- [ ] a. This application was made available to the State under the Executive Order 12372 Process for review on
- [ ] b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- [x] c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

- [ ] Yes
- [x] No

Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

- [x] ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Dr.
* First Name: Craig
Middle Name:
* Last Name: Smith
Suffix:

* Title: Chief Operating Officer

* Telephone Number: 239-498-2000
Fax Number:

* Email: craig.smith@algenolbiofuels.com

* Signature of Authorized Representative: Completed by Grants.gov upon submission.
* Date Signed: Completed by Grants.gov upon submission.

Application for Federal Assistance SF-424 Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** Project.pdf

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Project/Performance Site Primary Location

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Algenol Biofuels Inc.

DUNS Number: 8003999040000

* Street1: 2301 N Brazosport BLVD

Street2:

* City: Freeport

County: Brazoria

* State: TX: Texas

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 77541-2303

* Project/ Performance Site Congressional District: TX-014

Project/Performance Site Location 1

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City:

County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

* Project/ Performance Site Congressional District:

ALGENOL BIOFUELS INC.

Business and Commercialization Plan

I. BUSINESS STRATEGY

Exemption 4

II. TECHNOLOGY AND PROCESSES

Exemption 4

Exemption 4

Exemption 4

III. ALGENOL'S PLANS FOR COMMERCIAL BIOREFINERIES

Exemption 4

Exemption 4

Exemption 4

Exemption 4

REDACTED
EXEMPTION 4

Exemption 4

Exemption 4

IV. THE ETHANOL MARKET

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4
Exemption 4

V. ALGENOL'S CAPABILITIES AND RESOURCES

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

Exemption 4

VI. ALGENOL'S VALUE PROPOSITION

Exemption 4

Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$4,625,118	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$4,625,118		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$1,996,280	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$1,996,280			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$2,150,008	$1,156,280	$1,156,280	$1,156,280	$1,156,280
14. Non-Federal	Exemption 4				
15. **Total** (sum of lines 13 and 14)					

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096	$1,454,642	$428,295	$292,522	$299,651
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$1,454,642	$428,295	$292,522	$299,651

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$2,150,008	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$2,150,008		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$537,502		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$537,502			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$1,454,642	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$1,454,642		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

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Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$573,661		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$573,661			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$428,295	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$428,295		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. DE-FOA-0000096	$317,074		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$317,074			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$292,522	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$292,522		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

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Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals
8. DE-FOA-0000096	$283,131		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$283,131			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

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Applicant Name: The Dow Chemical Company Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0000096	81.087			$299,651	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$299,651		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	Exemption 4				
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. **Totals** (sum of 6i-6j)					
7. Program Income					$0

Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals
8. DE-FOA-0000096	$284,912		Exemption 4	
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$284,912			

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16.				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

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The Dow Chemical Company
Midland, Michigan 48674

June 16, 2009

Dr. Craig R. Smith
Chief Operating Officer
Algenol Biofuels Inc.
28100 Bonita Grande Drive, Suite 200
Bonita Springs, Florida 34135

Dear Dr. Smith:

The Dow Chemical Company (Dow), with annual sales of $58 billion and 46,000 employees worldwide, is a diversified chemical company that combines the power of science and technology with the "Human Element" to constantly improve what is essential to human progress. Dow delivers a broad range of products and services to customers in around 160 countries, connecting chemistry and innovation with the principles of sustainability to help provide everything from fresh water, food and pharmaceuticals to paints, packaging and personal care products.

Dow confirms its proposal to cooperate with Algenol Biofuels, Inc. (Algenol), by
Exemption 4

per year. Dow would be pleased for the opportunity to be able to work closely with Algenol, Principle Investigator, as described in the proposal entitled "Demonstration of Pilot-Scale Integrated Biorefinery Operations for Producing Ethanol from Algae" submitted to the US Department of Energy in response to the Funding Opportunity Announcement DE-FOA-0000096.

This project complements Dow's efforts in Sustainable Chemistry as stated in our publicly announced 2015 goals and is supported by our Polyethylene and Hydrocarbon and Energy Businesses. Steven Gluck, one of Dow's top experts in analytical chemistry, water treatment and algae technology, will lead the Dow effort.

Dow has dedicated significant resources in research for both alternative energy and minimizing the carbon footprint of manufacturing. Recent announcements include: a projected commercial launch of Building Integrated Photovoltaics for the home (The development of this technology is supported in part by a cooperative agreement with the US Department of Energy Solar America Initiative), an agreement with Alstom to build a pilot facility in West Virginia to capture CO_2 from a coal fired power plant, a joint project with NREL to focus on improving mixed alcohol catalysts for producing ethanol and AIRSTONE™ Systems for Wind Energy. Dow currently is expanding the products

made from renewable resources including RENUVA™ renewable resource technology polyols and the first integrated sugarcane derived ethanol to polyethylene world scale commodity production facility. In addition, Dow has proposed a comprehensive national energy security plan that stresses greater conservation, more use of domestic energy sources, development of natural gas and nuclear power and accelerated development of alternative energy with a reduction in greenhouse gases.

Dow proposes to support this program by providing research, engineering and related
Exemption 4

Dow's participation in this collaboration would be, of course, pursuant to finalization and execution of relevant written contracts or subcontracts governing such collaboration that are acceptable to Dow. The finalization and execution of any such contracts and subcontracts shall be at Dow's sole discretion, and is subject to approval by requisite management or executive leadership.

We look forward to the opportunity to further advance our collaboration with Algenol.

Sincerely,

William F. Banholzer
Executive Vice President and Chief Technology Officer

Environmental Questionnaire for FOA Applicants

PART I: General Information

Applicant Name:	***Algenol Biofuels Inc.***
Proposed Project Title:	***Pilot-Scale Integrated Biorefinery Operations for Producing Ethanol From Hybrid Algae***
Solicitation Number:	***DE-FOA-0000096***
Applicant Preparer:	***Dr. Craig Smith***
Applicant Phone:	***(239) 498-2000***
Applicant Email:	***craig.smith@algenolbiofuels.com***

1. Please describe the intended use of DOE funding in your proposed project. For example, would the funding be applied to the entire project or only support a phase of the project? Describe the activity as specifically as possible, i.e. planning, feasibility study, design, data analysis, education or outreach activities, construction, capital purchase and/or equipment installation or modification.

Algenol Biofuels Response: *Algenol intends to use the DOE funds for this entire pilot-scale integrated biorefinery project, subject to the cost share amounts to be borne by the applicant and its collaborators.*

Algenol today possesses the most advanced third generation biofuel technology in the United States. Algenol makes low cost ethanol directly from CO_2 and seawater using hybrid algae in sealed, clear plastic photobioreactors through its unique, patented Direct to Ethanol™ technology – all powered by the sun. Importantly, this is done without processing or transporting a separate biomass. At its core, Algenol has several components that come together in an integrated biorefinery from upstream CO_2 to final fuel grade ethanol product.

Algenol brings to this project significant capabilities and experience of its own and, together with its world-class partners, seeks to accelerate the commercialization of its Direct to Ethanol™ technology through application for funding by the Department of Energy.

Algenol's technology has culminated in hybrid algae that produce over 6,000 gallons of ethanol per acre per year, compared to corn at 400. Algenol's process achieves an energy balance of over 5 to 1 and a Life Cycle Carbon Analysis in a practical case that demonstrates that Algenol's Direct to Ethanol™ production process has a carbon footprint that is merely 20% of petroleum (an 80% reduction from petroleum). Algenol intends to build commercial scale facilities that can produce ethanol for under $1.50 per gallon. Our group of people, companies, and institutions are extraordinarily talented and possess diverse skills that ensure Algenol can not only execute on its plan to build both this pilot-scale integrated biorefinery, but Algenol will bring the technology to commercial scale in under 5 years.

Algenol, since its inception in 2006, rapidly advanced technology based on work done by one of the founders from 1984 through 1996.

- *Algenol has gone from its first hybrid algae cell, to over 300 hybrid algae cell lines;*
- *From 50ml scale to over 150 photobioreactors each with 300-liters;*
- *Algenol has designed and built 4,500-liter commercial scale flexible film photobioreactors;*
- *Algenol has increased hybrid algae ethanol synthesis over 200 times from the original work; and*
- *Higher ethanol production per square meter leads to lower cost and greater efficiency.*

The algae take in sunlight, grow in saltwater in sealed, clear plastic photobioreactors, carbon dioxide is introduced, each cell produces and excretes ethanol into the culture, and that ethanol evaporates into the headspace for collection and purification. Algenol can do this on marginal land, and without collecting, harvesting and killing the algae. The cultures live for over a year and channel carbon directly into ethanol production.

Significant economic and energy advantages are gained with collecting an evaporative product, and producing a single molecule that is always the same ethanol molecule. It requires separation from water, but no further refining into a homogenous, fuel ready product. Significant infrastructure already exists in the U.S. to blend ethanol. Ethanol has been maligned in the press lately when connected to corn, but ethanol is not the problem. When made cheaply enough and not from food, consumers have shown that they readily accept it in automobiles.

Algenol started with $70 million in equity funds from its 4 founders. The founders include:

- *a public company biotech pharmaceutical executive who founded and built a successful drug company with 350 employees and $50 million in sales;*
- *a second public company biotech executive that formed and launched a commercial contract manufacturing company that provides biopharmaceutical companies manufacturing services to scale-up from bench-top scale to commercial scale production compliant with US FDA Good Manufacturing Practices regulations;*
- *an energy company founder who built from his garage a $100 million public company, and a $70 million private energy company with over 800 employees in 6 states operating 4 natural gas pipelines and storage facilities, and complex natural gas hedging and risk management; and*
- *one of the four executives who control and operate the Corona beer company, including Grupo Modelo's packaging and paper products division.*

Algenol's strength is not just centered on its financial strength, but on it people, including:

- *the people who invented the technology in 1984 and developed the technology to proof of principle in 1998;*
- *the other inventors that have sought patents in algae to ethanol;*
- *the people heading the leading blue-green algae natural products company with 15 years experience;*
- *the people heading one of the largest commercial algae growers in Europe with 10 years experience;*
- *a former ExxonMobil executive and expert in CO2 capture systems, whose work included the direction of over 150 scientists and engineers in a major division of ExxonMobil Chemical;*
- *VeraSun Energy's former General Counsel and EH&S manager;*
- *Amgen's former Senior Project Manager, charged with scale up to commercial launch;*
- *Unilever's former VP General Manager;*
- *2 national academy members;*
- *a very strong Scientific Advisory Board; and*
- *many leading scientists and engineers all contributing to the foundation of Algenol, which has now become 100 of the most dedicated leaders in algae biofuels in the world.*

Algenol has brought together world-class partners with significant capabilities of their own and these capabilities bring many competitive advantages to Algenol and the overall Direct to Ethanol™ technology. The Dow Chemical Company, Georgia Tech, the National Renewable Energy Laboratory and Membrane Technology & Research (MTR) are all a part of Algenol's application.

The Dow Chemical Company will provide support from three of its businesses, namely the Polyethylene,

Hydrocarbon, and Energy businesses. Dow brings significant expertise in advanced polymer science directly impacting the cost, functionality, and durability of our photobioreactors. Dow will be providing
Exemption 4

Steven Gluck, Ph.D., one of Dow's top experts in analytical chemistry, water treatment and algae technology, will lead the Dow effort.

Georgia Tech and MTR will provide expertise in several key areas to the advanced commercialization of the Direct to Ethanol™ technology. Georgia Tech will conduct research aimed at a broad spectrum of technology improvements, all of which bear directly or indirectly on the reduction of ethanol production costs. The work divides into four areas:
Exemption 4
Bill Koros, Ph.D., and Chris Jones, Ph.D., lead this initiative at Georgia Tech. Richard Baker, Ph.D., will lead the initiative for MTR.

While we have an ethanol water separation process that works and is economical today, we believe that we can significantly improve the efficiency and reduce energy expenditure through further advanced research in this area. Water separation from ethanol presently represents 80% of our non-solar energy input. Clearly, it is a major opportunity for reduction in production costs, and this is a big advantage for Algenol both in terms of cost and energy savings, but also in terms of carbon footprint savings. The proposed research into advanced ethanol-water separation systems will have three main components.
Exemption 4

**More than $30 million dollars has been spent on R&D to date by Algenol. Algenol's application to the DOE is not centered on future research. Although this application does contemplate targeted R&D up to the maximum 10%, nearly three million dollars of the total budget, all of the R&D done through the end of 2009 will be done with Algenol's capital.*

Clearly, this application is centered on advancing the compelling R&D and scale up that has been completed to date by Algenol. The funds from the DOE will bring this advanced algae ethanol biofuel technology out of the large scale, and propel it into commercial-scale in an integrated way.

Algenol photobioreactors and process design parameters achieve cost reduction in the three primary areas: material and structure, energy required for mixing, and product harvest expense. Through thermodynamic processes and assisted by culture mixing, ethanol evaporates into the photobioreactor's headspace and subsequently it condenses on the upper inside surface of the same photobioreactor's headspace and is enriched over the ethanol concentration in the culture. To take advantage of this Algenol has developed from scratch three generations of photobioreactors. Each was built and tested and scaled to culminate in a very low cost commercial-scale flexible film photobioreactor system at 4,500 liter each. Algenol's plastics experts, with over 150 years experience, and Dow's advanced material group, will do final designs and specs for the Freeport, Texas pilot-scale integrated biorefinery.

Algenol has built the largest collection of blue-green algae in the world, built from scratch two separate research and development labs with over 60 scientists working on many projects including a rapid screening lab and proprietary screening paradigm, built a separate engineering lab with significant engineering capability, built rapid outdoor algae screening capabilities at two separate facilities, and built a licensed aquaculture facility and Process Development Unit in Florida, all within 3 years. Algenol will employ thousands of people in the future, and many at very high wages.

Algenol has detailed conceptual blueprints completed for the pilot-scale integrated biorefinery on Dow's land in Freeport Texas. Algenol has completed detailed engineering work as well. In our application we allow Exemption 4

Algenol has already demonstrated its ability to attract the very best talent, execute on its plan, and scale up working systems, all of these lead to a successful pilot-scale integrated biorefinery and ensures that the DOE's accomplishes its goal as well.

2. Does any part of your project require review and/or permitting by any other federal, state, regional, local, environmental, or regulatory agency? If yes, please describe.

Algenol Biofuels Response: *Yes.*

Federal regulation:

Hybrid Algae: *Under the 1986 Coordinated Framework for Regulation of Biotechnology, either the U.S. Department of Agriculture (USDA) or the U.S. Environmental Protection Agency (EPA) would be responsible for regulating the use and management of our hybrid algae. Presently, we anticipate that the EPA will exercise its authority under the Toxic Substances Control Act (TSCA) to regulate our hybrid algae under 40 CFR Part 725 as microbial products of biotechnology.*

Based upon direct discussions with EPA staff and advice of counsel, we do not anticipate EPA imposing regulatory restrictions that would impair our ability to proceed with this project as planned. In part, this is because every stage of Algenol's development, use, transportation and disposal of hybrid algae will take place in contained facilities or vessels, consistent with EPA's TSCA regulations.

Initial laboratory scale research and development takes place at Algenol's research laboratory in Baltimore, MD. The largest individual cultures used in the Baltimore lab are in the order of 80L. All Baltimore research takes place inside the laboratory in hard reactors within environmental chambers.

At present, Algenol has over 300 strains of ethanol producing algae. It must be said that Algenol does not believe that any component, together or separately, are in any way dangerous. The genes and enzymes over expressed and produced in the hybrid algae are very widely found in nature and in many of the foods you eat every day. Almost every handful of surface soil in most areas of the temperate planet would contain cyanobacteria of some sort, and many have these genes and or the ability to make ethanol naturally. Foods that would have been made with these genes and enzymes are all regular bread, all beer and all wine. Also these same genes and enzymes are found on the store-shelf of every grocery store in America in packets of yeast used for making bread. Algenol has not used synthetic biology to make synthetic genes or proteins that have never existed before. Blue-green algae are in most areas of the planet, and the genes and natural enzymes that Algenol uses Exemption 4 *Algenol works with very commonly found enzymes that are very safe, yet we understand that until time has passed, and everyone has had time to see how safe these hybrid algae are, we take extraordinary steps and actions used during the handling of much more dangerous material in a belt and suspenders approach to safety. We want everyone to see in the end that these algae are incredible simple, like yeast, but also incredibly safe.*

Exemption 4

Exemption 4

**In light of the above, when handling hybrid algae, scientists wear disposable gloves and goggles as necessary inside any laboratory. The organisms are killed with bleach following experiments and any materials that come into contact with such organisms are either autoclaved or cleaned with bleach or 70% ethanol solution and are then properly disposed of. The biomass is removed from the laboratory on a regularly scheduled basis by an authorized contractor specializing in waste transportation.*

When a strain of hybrid algae is approved for larger scale production, a very small, laboratory-scale, volume of the strain (cells maintained on agar slants as stocks) will be transferred from the Baltimore laboratory to the laboratory at the Texas pilot project facility. This transfer will be under contained conditions in order to minimize risk of environmental release. Moreover, such transfers are anticipated to occur rarely. Ideally, such a transfer would occur once and all future hybrid algae would be grown from the transferred stock at the Texas facility.

Once in the Texas laboratory, the algae will be placed in a liquid culture and scaled up from the level of Petri dish, to flask, to larger containers within a greenhouse. Exemption 4 *. This phased scale up approach is a necessary component of successful production of these algae. It is unlikely that they will survive a direct transfer from a small container in which their mass makes up the volume of the container to a far larger container in open sunlight. This natural limitation provides an inherent protection against unintended survival in the environment. An even greater assurance against such unintended survival is the fact that the hybrid algae are unable to compete and survive or reproduce outside the saltwater culture medium in the photobioreactor. This photobioreactor maintains optimum conditions for their survival not found in nature.*

**From the greenhouse, the algae will be transferred to enclosed, sealed photobioreactors, as described more fully in the Project Execution Plan and elsewhere.* Exemption 4

**We also take multiple, redundant steps to prevent any escape from containment of the algae during any stage of processing.* Exemption 4

Exemption 4

. In sum, Algenol has taken reasonable measures to ensure that the hybrid algae will be used only inside the constraints of physical confinement similar to those that are found in a laboratory, greenhouse, or other contained structure.

Algenol has met with the EPA Chemicals Branch personnel to explain in detail our proposed project to demonstrate our DIRECT TO ETHANOL™ process for biofuel production. Following our meeting with the EPA, we are now preparing to submit the appropriate information to the EPA in order to facilitate that agency's review and approval of any necessary clearances under TSCA. We anticipate that EPA review of our submittal will be concluded before applicants under this funding opportunity are selected for grants. Regardless of the results, Algenol will share EPA's final review document with all appropriate DOE officials as soon as it is available. Algenol is prepared to, and will, comply with all regulatory requirements set out by EPA under TSCA, including any additional containment, handling or disposal requirements.

**Under the distribution of regulatory authority laid out in the Coordinated Framework, we do not believe that we would be subject to regulation by USDA. At USDA, the Animal and Plant Health Inspection Service (APHIS), regulates certain microorganisms under the Plant Protection Act. These regulations are found at 7 CFR Part 340. APHIS regulates organisms altered or produced by genetic engineering if APHIS has reason to believe the organism is a "plant pest." Pursuant to those regulations, Algenol has submitted a letter to APHIS providing a detailed identification of the hybrid algae that we use to produce ethanol fuel, as well as our analysis of the relevant regulations. The letter concludes by stating that the hybrid algae used by Algenol are not identified plant pests as defined by APHIS and do not have characteristics similar to plant pests. We understand from conversations with APHIS officials that APHIS and EPA are currently in discussions to determine their respective jurisdiction over Algenol's hybrid algae. Of course, if EPA and APHIS determine that APHIS is the appropriate federal regulator of our hybrid algae, Algenol will comply with all appropriate APHIS regulatory requirements, including those regarding the permitting of interstate movement. Due to the contained nature and operation of the photobioreactors, we do not anticipate the need for an APHIS environmental release permit.*

***Air:** As a minor source, the projected facility will not require federal new source review. We do not anticipate EPA or the Texas Commission on Environmental Quality imposing regulatory burdens that outweigh the value of developing the project since Algenol's process does not place human health or the environment at risk. On the contrary, biofuel production by Algenol at the pilot-scale project proposed in this funding application, and at any follow-on commercial scale facilities, will actually benefit human health and the environment by displacing less preferred fuels. Algenol's biofuel will contribute less net greenhouse gas emissions than any conventional transportation fuel and less than many other advanced technology biofuels. Carbon dioxide, the only greenhouse gas emitted from combustion of fuel produced using DIRECT TO ETHANOL™ technology, is entirely derived from captured industrial sources or, potentially, from the ambient air. None of it is added to the atmosphere from fossil fuel combustion. Minimal amounts of ethanol vapor and carbon dioxide will be released, and all water will be purified before release under the terms of an existing state water permit.*

***Water:** There is an existing water permit for the Dow site, the federal rules will be addressed through the permit. The current site under consideration is described as "undeveloped" and Dow would need to describe this unit description under the appropriate permit discharge outfall.*

Before any earthwork can be done, the land involved needs to be determined to not contain jurisdictional wetlands. The particular area involved does not likely contain jurisdictional wetland but it will need to be confirmed. Dow Chemical has several alternative locations at its Freeport facility in the event of

restrictions on this specific 24 acres. The overall Freeport facility is many thousands of acres "inside the block" and there are 4 or more 30-acre areas that can serve as backup sites if this first chosen area is found to be unsuitable or too expensive compared to other specific sites also within the same Freeport block.

Spill Prevention Control and Countermeasures, SPCC, regulations are expected to not be applicable due to the small quantities of oils being stored on the site.

Because Algenol uses saltwater, not fresh water, as a feedstock, the project will conserve freshwater that would otherwise be consumed to make the fuel we displace. Algenol fuel will also conserve land. Algenol anticipates making 6,000 gallons of fuel per year per acre without using fossil fuel-based fertilizers. Corn-based ethanol is produced at a rate of approximately 400 gallons per year per acre. Algenol will use land that is not suitable for any other crop production. Algenol requires no energy intensive fuel refineries.

Alcohol and Tobacco Tax and Trade Bureau: *A bureau of the Department of Treasury, the Alcohol and Tobacco Tax and Trade Bureau is responsible for collecting excise taxes and administering certain permitting requirements associated with the production of alcohol. Algenol's envisioned facilities will be classified as Alcohol Fuel Plants because they will be producing alcohol exclusively for use as a fuel. As such, Algenol will apply for and receive the required Alcohol Fuel Producers Permit in accordance with all rules and regulations.*

EPA Renewable Identification Numbers: *The EPA's RIN program is an administrative element of the Renewable Fuel Standard used by obligated parties and renewable fuel producers to demonstrate compliance with usage mandates and track the volumes of renewable fuels. As Algenol begins commercial production and transfer of ethanol, we will be fully compliant with the labeling and reporting requirements of the RIN program.*

State, Regional, Local regulation:

Hybrid Algae: *The location of the pilot plant has no state, regional or local regulations specific to the regulation of our hybrid algae or other biotechnology-derived organisms.*

Air: *The projected facility will be a minor source of air emissions and require state authorization under TAC 30 Ch. 116 and/or Ch. 106. Based on preliminary data an actual permit under Ch. 116 will not be needed. The project can be authorized under permit-by-rule §106.261. This will require registration with the Texas Commission on Environmental Quality for their review.*

Water: *A construction stormwater permit will be needed for the earthwork in preparing the site and for the construction of the actual project. The location being considered would be covered by Dow's existing site water permit.*

When completed and normal operations begin, stormwater from the project site and any process wastewater will need to be addressed within the site's water permit. Depending on the nature of the water, this could be fairly easy and quick or could take several months to authorize.

The site will have appropriate concrete containment.

3. Has any review (e.g., NEPA documentation, permits, agency consultations) been completed? If yes, is a finding or report available and how can a copy be obtained?

Algenol Biofuels Response: *No.*

Federal: *As mentioned above, Algenol has submitted a letter to APHIS providing a detailed identification of the hybrid algae that we use to produce ethanol fuel, as well as our analysis of the relevant regulations, and seeking an opinion letter from APHIS that that its hybrid algae are not "regulated articles" under 7 C.F.R. Part 340 and their use does not require a permit or other authorization APHIS.*

If APHIS were to exercise jurisdiction over Algenol's hybrid algae, its regulation would likely only extend to permitting the occasional interstate transfer of hybrid algae cell cultures between the Baltimore research facility and the Texas pilot plant. The issuance of such interstate movement permits is categorically excluded under APHIS's NEPA implementation regulations. 7 CFR § 372.5(c)(3)(iii)(B). This interstate movement would not trigger any of the exceptions to APHIS's categorical exclusions, as set forth at 7 CFR § 372.5(d).

EPA's regulation of our hybrid algae under TSCA would occur under regulations at 40 CFR Part 725. These regulatory activities would likely be found to constitute "functional compliance" with NEPA requirements. See Environmental Defense Fund v. EPA, *489 F.2d 1247, 1257 (D.C. Cir. 1973). However, it is well-established that this would not exempt DOE from undergoing its own NEPA review for its funding of this project.* See Oregon Environmental Council v. Kunzman, *714 F.2d 901, 905 (9th Cir. 1983).*

Under DOE's own NEPA implementation regulations, Algenol's activities should also be categorically excluded from additional NEPA environmental review. Based on the absence of any significant risk to health, safety or the environment, this pilot project should be treated in a manner similar to those described in Appendix B to 10 CFR Subpart D of Part 1021, including categorical exclusions applicable to site characterization, monitoring and general research, such as B3.6 "Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects"; "Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis; small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible.); or B3.12 "Siting, construction (or modification), operation, and decommissioning of microbiological and biomedical diagnostic, treatment and research facilities... ".

State of Florida:

Aquaculture License; Hybrid Algae*: Algenol has a scale up facility situated on approximately five acres in Loxahatchee, Palm Beach County, Florida at which scale up is done from the laboratory scale, to the greenhouse and photobioreactor scales. Algenol has approximately 15 scientists, engineers and support staff at this scale up facility. When fully operational, the Palm Beach County facility would include* Exemption 4

The Palm Beach County facility is licensed by the State of Florida as an aquaculture facility for nearly two years, is operated as a zero discharge facility, and at all times has operated in compliance with Florida's Aquaculture Best Management Practices. We have had several inspections and have passed all without any compliance issue, delay or stop orders. All work with the hybrid algae at the Palm Beach County scale up facility will be conducted in fully enclosed photobioreactors that are situated in a lined containment area. The description of the workings of the pilot project in Sec. I, 2 also apply to the Palm Beach County scale up

facility. The State of Florida has no state laws or regulations specific to Algenol's hybrid algae.

Algenol has, however, initiated discussions with the Florida Department of Agriculture, Division of Aquaculture, to determine what additional permits or licenses, if any, are required to conduct scale up at the facility with our hybrid algae.

Air: *Algenol has applied for and obtained a Generic Facility Exemption from Palm Beach County relating to air permit rules for its aquaculture scale up and development facility located in Loxahatchee, Florida. This exemption request is made pursuant to Florida Administrative Code Chapter 62-210.300 Section (3)(b)2.*

Presently, the Palm Beach County facility does not generate ethanol or any other biofuel from algae, however, Algenol is testing the ability of various algae strains to withstand exposure to ethanol in concentrations that would be observed in commercial production. Exemption 4 *. During the course of these experiments, some ethanol will be vented to the atmosphere periodically until the cultures are free of ethanol. Following Algenol's calculations, it was concluded that any annual VOC emissions would be far less than the amount allowed by the Generic Facility Exemption at F.A.C. Chapter 62-210.300 Section (3)(b)2 and far below any Federal or State regulations.*

4. Is the proposed project part of a larger scope of work? If yes, please describe.

Algenol Biofuels Response: *Yes, as described in the "Business and Commercialization Plan" section of this application. Algenol has an aquaculture and scale up facility situated on approximately five acres in Palm Beach County, Florida. Algenol has approximately 15 scientists, engineers and support staff at this scale up facility. At a research laboratory in Baltimore, Maryland, Algenol employs nearly 20 scientists, engineers and support staff. The Baltimore laboratory is focused on the identification, molecular modification, and testing of algae species suitable for biofuel production.*

Algenol understands from instructions provided in Appendix E to the FOA that NEPA information should be provided only for the primary location(s) at which work would be done, and that NEPA information for locations such as the following does not need to be included: routine laboratory, document research, and routine crop growing or feedstock collection. See FOA, Appendix E at 95. For that reason, the remainder of Algenol's responses will focus on the Texas facility where this project will take place. Algenol understands that, should this proposal be accepted, additional NEPA information must be submitted regarding its activities in Maryland and Florida.

5. Do you anticipate requesting additional federal funding for subsequent phases of this project? If yes, please describe.
   Algenol Biofuels Response: *No.*

6. Does the scope of your project **only** involve one or more of the following:
   - Information gathering such as literature surveys, inventories, audits,
   - Data analysis including computer modeling,
   - Document preparation such as design, feasibility studies, analytical energy supply and demand studies, or
   - Information dissemination, including document mailings, publication, distribution, training, conferences, and informational programs.

   Algenol Biofuels Response: *No, the project will include the production of fuel grade ethanol.*

PART II: Environmental Considerations

1. Clearing or Excavation (indicate if greater than 1 acre)
   Algenol Biofuels Response: *Yes.*
   - *The specific nature or type of activity or condition:*
     - *24 acres will be filled*

   - *Whether a consultation, approval, or permit applies and a description and status of the permitting/approval/documentation process:*
     - *Before any earthwork can be done, the land involved needs to be determined to not contain jurisdictional wetlands. The particular area involved does not likely contain jurisdictional wetland but it will need to be confirmed. Dow Chemical has several alternative locations at its Freeport facility in the event of restrictions on this land.*
     - *A construction stormwater permit will be needed for the earthwork in preparing the site and for the construction of the actual project. The location being considered would be covered by Dow's existing site water permit.*

2. Dredge and/or Fill. Specify the number of acres.
   Algenol Biofuels Response: *Yes, see answer above for item 1 clearing and excavation.*

3. New or Modified Federal/State Permits and/or Requests for Exemptions
   Algenol Biofuels Response: *Yes.*

   - *The specific nature or type of activity or condition:*
     - As discussed more fully in Sec. I, 2, above, Algenol expects that its work with hybrid algae will be regulated by EPA under TSCA. Algenol has written to APHIS to confirm that that agency will not regulate the hybrid algae as a potential plant pest under the Plant Protection Act. APHIS's response is pending.
     - The projected facility will be a minor source of air emissions and require state authorization under TAC 30 Ch. 116 and/or Ch. 106. Based on preliminary data an actual permit under Ch. 116 will not be needed. The project can be authorized under permit-by-rule §106.261. This will require registration with TCEQ for their review.
     - As a minor source, the projected facility will not require federal new source review.
   - *Whether a consultation, approval, or permit applies and a description and status of the permitting/approval/documentation process:*
     - Currently, we are in the process of completing emission calculations that will allow final confirmation of permit-by-rule applicability.

4. Pre-Existing Contamination
   Algenol Biofuels Response: *No.*

5. Asbestos
   Algenol Biofuels Response: *No. Asbestos has never been used on this land.*

6. Criteria Pollutants
   Algenol Biofuels Response: *No. Criteria air pollutants are addressed in the air permitting section.*

7. Non-Attainment Areas
   Algenol Biofuels Response: Yes, this is a non-attainment area for ozone. Air permitting is addressed in the previous section.

8. Class I Air Quality Control Region
   Algenol Biofuels Response: No, this is not a Class I Air Quality Control Region. Emissions from the facility will not impact any of these regions. The closest region is 700 miles away, Big Bend National Park.

9. Navigable Air Space
   Algenol Biofuels Response: *No.*

10. Areas with Special Designation (e.g., National Forests, Parks, Trails)
    Algenol Biofuels Response: *No.*

11. Prime, Unique or Important Farmland
    Algenol Biofuels Response: *No.*

12. Archeological/Cultural Resources
    Algenol Biofuels Response: *No. If a permit from the Corps of Engineers is required (i.e. Dredge and Fill of Wetlands), the process includes an archeological review and a study may be required. See Part I, section 2 above.*

13. Threatened/Endangered Species and/or Critical Habitat
    Algenol Biofuels Response: *No. If a permit from the Corps of Engineers is required (i.e. Dredge and Fill of Wetlands), the process includes a review of threatened and endangered species. We are not aware of any endangered species in this area.*

14. Other Protected Species (Wild Burros, Migratory Birds)
    Algenol Biofuels Response: *No. We are not aware of any protected species in this area. This would be reviewed in the course of the project and appropriate siting.*

15. Floodplains
    Algenol Biofuels Response: *No. The area is out of the floodplain. It is protected by the levee.*

16. Special Sources of Groundwater (e.g., Sole Source Aquifer)
    Algenol Biofuels Response: *No. We will not be using groundwater. There are multiple aquifers in the area.*

17. Underground Extraction/Injection (non-hazardous substances)
    Algenol Biofuels Response: *No. We will not be using underground extraction and injection.*

18. Wetlands
    Algenol Biofuels Response: *No. This area is currently considered non-jurisdictional. We will confirm this, see Part I, section 2 above.*

19. Coastal Zones
    Algenol Biofuels Response: *No. This land is separated by a levee.*

20. Public Issues or Concerns
    Algenol Biofuels Response: *No. Algenol's use of hybrid algae is most accurately characterized as the contained, industrial application of biotechnology, and we anticipate that it will be both regulated and accepted as such. To the extent any concerns are expressed, we are prepared to demonstrate the*

sufficiency of our containment measures and other actions taken to ensure that this project will not pose a risk to health, safety or the environment.

21. Noise
    Algenol Biofuels Response: *No.*

22. Depletion of a Non-Renewable Resource
    Algenol Biofuels Response: *No.*

23. Aesthetics
    Algenol Biofuels Response: *No.*

24. Odor
    Algenol Biofuels Response: *No.*

Section B. Would your project use, disturb, or produce any chemicals or biological substances? (i.e., pesticides, industrial process, fuels, lubricants, bacteria) For each materials or processes listed below please indicate:

1. Polychlorinated Biphenyls (PCBs)
   Algenol Biofuels Response: *No.*

2. Import, Manufacture, or Processing of Toxic Substances
   Algenol Biofuels Response: *No. Although the hybrid algae will likely be regulated under TSCA, the algal strains chosen for use are non-toxic.*

3. Chemical Storage, Use, and Disposal
   Algenol Biofuels Response: *No.*

4. Pesticide Use
   Algenol Biofuels Response: *No, with exception of a minimal amount of normal, licensed weed and pest control using EPA-registered products.*

5. Hazardous, Toxic, or Criteria Pollutant Air Emissions
   Algenol Biofuels Response: *No.*

6. Liquid Effluent
   ****Algenol Biofuels Response:*** *The drainage from the containment area on which the photobioreactors are located is controlled by valves and the drain lines lead to buried sumps. Under normal operations, rainwater is drained from the containment area to the sumps by gravity. The sumps have pumps that will move the rainwater to the drainage ditch on the property. In the case of a spill, the drainage will be diverted to a water sterilization system that will remove biomass and sterilize the water using chlorine bleach. All sterilized water will be stored for reuse in the photobioreactors or evaporated in evaporation tanks.*

   **The facility's water sterilization system uses* Exemption 4

7. Underground Extraction/Injection (hazardous substances)
   Algenol Biofuels Response: *No.*

8. Hazardous Waste
   Algenol Biofuels Response: *No.*

9. Underground Storage Tanks
   Algenol Biofuels Response: *No.*

10. Biological Materials. Indicate if genetically altered materials are involved.
    Algenol Biofuels Response: *Yes.*

    **The platform organisms to be used for this project include* Exemption 4

Please refer to Part. I, 2 Hybrid Algae for a more detailed discussion of the federal and state regulatory issues around, and the quantities of, hybrid algae involved.

Section C. Would your project require or produce any radiological materials? For each item below, please indicate:

1. Radioactive Mixed Waste
   Algenol Biofuels Response: *No.*

2. Radioactive Waste
   Algenol Biofuels Response: *No.*

3. Radiation Exposures
   Algenol Biofuels Response: *No.*

NEPA R&D Laboratory Questions

1. Please provide and describe the location of the facility or facilities where lab work will take place.

Algenol Biofuels Response: *Laboratory facilities for non-routine analyses are located in existing laboratories of the Freeport, Texas site operations of The Dow Chemical Company. An additional new laboratory will be located in one of the project buildings for routine analyses.*

2. What type of safety protocols are in place in the areas where work will take place? Who monitors

these? Internally and externally? OSHA standards?

Algenol Biofuels Response: *Mr. Gregory Schlicht, Algenol's General Counsel will lead the Company's efforts to manage legal and regulatory issues. Prior to joining Algenol, Mr. Schlicht served as Senior Vice President, General Counsel and Corporate Secretary of VeraSun Energy, a leading producer and marketer of ethanol and distillers grains. While at VeraSun, Mr. Schlicht managed the Environmental, Health and Safety division for the company's 16 biorefineries. Mr. Schlicht's experience as the general counsel of two large public companies provides him with broad legal and commercial experience. As well, his work in the energy industry, including his role in managing commodity risks and Environmental, Health and Safety (EH&S) for 16 biorefineries, aligns well with his responsibilities at Algenol, which will help Algenol successfully construct and operate the pilot-scale biorefinery. Other members of the team responsible for regulatory and EH&S will include regulatory professionals, environmental, health and safety professionals, quality assurance/quality control, and legal professionals. The team will be responsible for preparing and submitting all required permits, developing and auditing compliance with EH&S procedures, and developing and monitoring compliance with Standard Operating procedures for the pilot-scale biorefinery.*

An EH&S director will plan, direct and implement EH&S programs, procedures and policies to ensure occupational, health and environmental safety compliance. The director will address, among other issues, OHSA's Laboratory Safety Standard, requirements for preparation of Chemical Hygiene Plans, Hazard Communication Standard, Occupational Exposure to Hazardous Chemicals in Laboratories Standard, and limits on airborne contaminants such as carbon dioxide and ethanol. Also, the director will conform standard operating procedures to OSHA's Process Safety Management standard in order to prevent or minimize the consequences stemming from a release of photobioreactor contents. Prior to developing a written action plan in consultation with employees, the director will complete a compilation of process safety information to ensure a full understanding of the technology, materials and equipment necessary to complete the project. The resulting process hazard analysis shall be proportionate to complexity of the project and will identify, evaluate and control the potential hazards of the processes.

The safety protocols will be the same protocols used by the Freeport site operations of The Dow Chemical Company. The facility will comply with all of The Dow Chemical Company's safety rules, standards and procedures, which comply with, and in many situations, exceed OSHA's requirements.

3. How are the gases, chemicals, heavy metals, etc.? handled, stored and disposed?

Algenol Biofuels Response: *There will be no heavy metals used or generated. Gases and chemicals are handled, stored and disposed of in accordance with Dow Chemical's EH&S standards that are applied consistently throughout the Freeport facility. The EH&S protocols will be the same protocols used by the Freeport site operations of The Dow Chemical Company. The facility will comply with all of The Dow Chemical Company's rules, standards and procedures, which comply with, and in many situations, exceed environmental regulations.*

4. What type of safety equipment is in place for the facilities (i.e. fume hoods, alarms, scrubbers, etc...)?

Algenol Biofuels Response: *During design and construction the safety equipment will be planned and considered using similar models to existing facilities on the Freeport site. There will be pre-startup EH&S reviews conducted jointly by Algenol and Dow to ensure all safety requirements are met before use of the facilities. For example, Dow will determine if there will need to be a fume hood for any lab analyses. Dow will probably require a fire monitor and there will be fire extinguishers and safety shower/eye wash stations. The facility will be inside the Dow fence-line and, therefore, Dow security personnel will manage access. Also, the building will be tied into the site-wide alert system for*