ASSISTANCE AGREEMENT

1. Award No.	2. Modification No.	3. Effective Date	4. CFDA No.
DE-EE0002867	002	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 09/30/2010

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)	10EE004395

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: $24,331,431.00 Cost Share : $ REDACTED EXEMPTION 4 Total : $	This action: $0.00 Total : $24,331,431.00

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
OR for Golden U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4517 Oak Ridge TN 37831	OR for Golden U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4517 Oak Ridge TN 37831	

20. Accounting and Appropriation Data

IBR

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	27. Date Signed
		Michael A. Schledorn	07/21/2010

Working Copy

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-EE0002867/002	PAGE 2 OF 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 purposes of this modification are to:				
	REDACTED EXEMPTION 5 - deliberative process				
	All other terms and conditions remain unchanged. In Block 7 of the Assistance Agreement, the Period of Performance reflects the beginning of the Project Period through the end of the current Budget Period, shown as 01/29/2010 through 09/30/2010. For multiple Budget Periods, see Special Terms and Conditions, Provision 4, "Award Project Period and Budget Periods." The total amounts reflected in Blocks 12 and 13 of the Assistance Agreement do not include the Federally Funded Research and Development Center (FFRDC) funding which will be funded directly Ex. 5 - deliberative process DOE Award Administrator: Molly Hames E-mail: molly.hames@go.doe.gov Phone: 303-275-4864 DOE Project Officer: Christy Sterner E-mail: christy.sterner@go.doe.gov Phone: 303-275-4720 Recipient Business Officer: Katie McFadden E-mail: Katie.McFadden@Algenolbiofuels.com Phone: 239-498-2000 Recipient Principal Investigator: Craig Smith E-mail: craig.smith@algenolbiofuels.com Phone: 239-498-2000 "Electronic signature or signatures as used in this document means a method of signing an Continued ... electronic message that--				

24. INSOLVENCY, BANKRUPTCY OR RECEIVERSHIP

a. You shall immediately notify the DOE of the occurrence of any of the following events: (i) you or your parent's filing of a voluntary case seeking liquidation or reorganization under the Bankruptcy Act; (ii) your consent to the institution of an involuntary case under the Bankruptcy Act against you or your parent; (iii) the filing of any similar proceeding for or against you or your parent, or your consent to the dissolution, winding-up or readjustment of your debts, appointment of a receiver, conservator, trustee, or other officer with similar powers over you, under any other applicable state or federal law; or (iv) your insolvency due to its inability to pay debts generally as they become due.

b. Such notification shall be in writing and shall: (i) specifically set out the details of the occurrence of an event referenced in paragraph (a); (ii) provide the facts surrounding that event; and (iii) provide the impact such event will have on the project being funded by this award.

c. Upon the occurrence of any of the four events described in paragraph a. of this provision, DOE reserves the right to conduct a review of your award to determine your compliance with the required elements of the award (including such items as cost share, progress towards technical project objectives, and submission of required reports). If the DOE review determines that there are significant deficiencies or concerns with your performance under the award, DOE reserves the right to impose additional requirements, as needed, including (i) change of payment method; or (ii) institute payment controls.

d. Failure of the Recipient to comply with this provision may be considered a material noncompliance of this financial assistance award by the Contracting Officer.

25. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS

REDACTED
EXEMPTION 5
- deliberative process

PMC 120.1
(2/08)

U.S. DEPARTMENT OF ENERGY
GOLDEN FIELD OFFICE

FINANCIAL ASSISTANCE COMBINED COST/TECHNICAL EVALUATION AND NEGOTIATION MEMORANDUM

SECTION I - GENERAL INFORMATION

This technical evaluation/negotiation memorandum will be prepared jointly by the assigned DOE/Golden OCPM AND OAFA personnel, to document the specific action being evaluated and supported. Each office is responsible for certain sections of this document. The assigned OCPM and OAFA personnel responsible for the action will both sign this document upon its completion, demonstrating their agreement on its contents.

1. Recipient: Algenol Biofuels Inc.

2. Grant/Cooperative Agreement No.: EE0002867 Modification No. 002
   Requisition No: 10EE004395
   Project Title: Recovery Act: Integrated Pilot-Scale Biorefinery for Producing Ethanol from Hybrid Algae

3. Type of Action: ☐ New Award ☐ Renewal ☐ Continuation ☒ Revision

Description of this Action: (NOTE: Indicate what is addressed by this Action only):

The purpose of this action is to revise the Budget Period (BP1) budget and lift the remaining BP1conditions for the Algenol Biofuels project entitled, "Recovery Act: Pilot-Scale Integrated Biorefinery for Producing Ethanol from Hybrid Algae" (DE-EE0002867). The revised BP1 budget ($) has been reduced from the originally approved budget

REDACTED
EXEMPTION 5 - deliberative process

4. Award type, as determined at Procurement Strategy Meeting (for new awards): ☐ Grant ☒ Cooperative Agreement
   If Cooperative Agreement, provide the specifics of the Substantial Involvement. (Note: This language will be used in the Substantial Involvement provision of the award.):

1. Government Insight

   In order to adequately monitor project progress and provide technical direction and/or redirection to the Recipient, DOE must be provided an adequate level of insight into various Recipient activities. Government Insight activities by DOE include attendance at Recipient meetings, reviews and tests, as well as access for DOE's consultants to perform independent evaluations of Recipient's plans and processes. Recipient shall notify the DOE Project Officer of meetings, reviews, and tests in sufficient time to permit DOE participation, and provide all appropriate documentation for DOE review.

2. Specific activities to be conducted by DOE:

   a. Risk Evaluation – DOE will review the Recipient's initial Risk Mitigation Plan (RMP) for quality and completeness. DOE will also monitor updates to the RMP and actions taken by the Recipient during the performance of its award to mitigate risks and improve the probability of successful execution of the integrated Biorefinery project. At DOE's discretion, additional independent risk analyses of the project by DOE consultants may be requested.

   b. Independent Engineering Assessments – DOE will engage a private, independent engineering (IE) firm to assist in assessing the progress of the project and provide timely and accurate reports to DOE. The

Recipient will ensure that the IE has access to any and all relevant documentation sufficient to allow the IE to provide independent evaluations to DOE on the progress of the project. Such documentation includes but is not limited to the following:

- Drawings and specifications
- Construction and Execution plans
- Resource loaded schedules
- Design functions and requirements for the site final design review
- Risk management plans
- Value management and engineering studies and/or plans
- Acquisition strategies
- Project execution plans
- Project controls including earned value management systems
- Qualifications of the integrated project team.
- Financial strategy for funding the construction project
- Updated marketing and business plan
- Invoices submitted to DOE

DOE will evaluate the quality and completeness of information and documentation provided by the Recipient to DOE and its consultants in order to allow DOE to provide technical direction and/or redirection to the Recipient about how best to achieve the purposes of the award. Consultants to DOE may not provide technical direction and/or redirection to the Recipient.

5. New/Revised Project Period for this Award: From: 01/29/2010 To: 12/31/2014
   New/Revised Budget Period 1 for this Award: From: 01/29/2010 To: 09/30/2010
   New/Revised Budget Period 2 for this Award: From: 10/01/2010 To: 12/31/2014

6. Compliance Assessment (skip if new award):
   a. Deliverables
   The Recipient is current in submitting required reports: ☒ Yes ☐ No
   If no, identify the delinquent report(s), indicate what action(s) have been taken to remedy the situation, and identify what further action(s) are necessary, if any:

   b. Financial
   The Recipient is current in meeting the cost share requirement: ☐ Yes ☐ No
   If no, indicate what action(s) have been taken to remedy the situation and validate why this new action should proceed:
   N/A

7. Check the applicable box for Funding Appropriation: ☒ Energy and Water ☐ Other _____

8. Check the applicable box for Statutory Authority:
   ☒ 109-58, Energy Policy Act 2005
   ☐ 110-140, Energy Independence and Security Act 2007
   ☒ 111-5, Recovery Act (2009)
   ☐ Other: _____

9. Per 10 CFR 600, the preferred payment method for State/Local Governments, Institutions of Higher Education, Hospitals, or Other Non-Profit Organizations is **Advance**. The preferred Payment Method for For-Profit organizations is **Reimbursement**. If the preferred payment method is not planned for a new award, provide an explanation below. Also explain below if the payment method for the award is being changed by this action.
   The recipient is receiving ARRA funds and will continue to be on the ACH payment method to monitor their funds to ensure costs outside of Budget Period 1 are not charged to the award.

10. Is the proposed Recipient on the debarred or suspended list? Yes ☐ No ☒
    Are any of the proposed subrecipients/subcontractors on the debarred or suspended list? Yes ☐ No ☒
    Is the Project Director on the debarred or suspended list? Yes ☐ No ☒
    If yes for either response above, award cannot be made without obtaining a waiver. See attached waiver.
    The review was conducted on the Internet on 07/15/2010 (Include Printout in permanent STRIPES file)
    (Date)

budget. In addition, minor changes were made to the costs associated with a few of the vendors. These costs were adjusted to reflect more accurate costs for the services that will be provided (explanation provided verbally from the recipient). For example, in the original budget REDACTED EXEMPTION 4 hat will oversee the development and selection of the organism characterization, was budgeted at $ ut in the revised budget he is budgeted at $ In addition, the costs associated with the survey in the original budget ($) have been removed from the revised budget. Please see the 123.1 for reference

☒ Specialist concurs.

7. Construction:

Total Negotiated Construction Costs: $0 Not Applicable, the recipient did not propose construction costs: ☒

Project Officer:
No construction costs were proposed for Budget Period 1.

☒ Specialist concurs.

8. Other Direct Costs:

Total Negotiated Other Direct Costs: $0 Not Applicable, the recipient did not propose other direct costs: ☒

Project Officer:
No other direct costs were proposed for Budget Period 1.

☒ Specialist concurs.

9. Indirect Charges:

Total Negotiated Indirect Costs: $ REDACTED EXEMPTION 4 Not Applicable, the recipient did not propose indirect costs: ☐

Original Budget: $
Revised Budget: $
Specialist:
Does the Recipient have an approved rate agreement: ☐ Yes ☒ No

If Yes, List the Date of Rate Agreement:_____ Cite Federal Cognizant Agency _____

If No, select one of the following:
☒ Rate proposal was reviewed by the Cost/Price Analyst and found to be reasonable, allowable, and allocable (attach Cost/Price Analyst Determination)
☐ Rate Proposal was reviewed by the Cost/Price Analyst for a previous award (attach Cost/Price Analyst Determination)
List Date of review_____
☐ Specialist determined that rate was reasonable
☐ Other:

Please fill out the following tables with the negotiated costs:

Base Item	Base Cost	Rate	Indirect Cost
Personnel			
Fringe Benefits			
Travel			
Equipment			
Supplies			
Contractual (Vendor)			
Construction			
Other Direct Costs			
Total:			

REDACTED EXEMPTION 4

The indirect costs proposed in the original budget are reasonable: ☒
The recipient used a newly proposed rate of % for their budget revision in the PMC 123.1; however, a Provisional Rate Agreement was issued April 20, 2010 with an indirect rate of %, based upon the recipient's indirect rate

1(

REDACTED
EXEMPTION 5

- deliberative process

Organization	Type of Cost Share (Cash or in-kind)	Cost Share Amount	Basis of Value (how the recipient calculated value)
Algenol			
DOW Chemical Company		REDACTED EXEMPTION 4	
Membrane Technology and Research, Inc.			
	Total:		

Third Party cost share commitment letters have been obtained: ☒ **(Please include letters in permanent STRIPES file)**

Both MTR and DOW's cost share letters state they will commit , for the tasks they will be working on for the duration of the project, which they have met in their budget, MTR=
DOW=

B. The following Project Officer and Specialist evaluation and negotiation commentary and recommendations address their agreement on all additional considerations for this award.

1. Please list any other special provisions agreed upon for inclusion in this award and describe the rationale for their inclusion below.

The special provisions will remain the same as in the first Mod 001. However, the reopener and subcontractor approval holds for Budget Period 1 will both be removed.

2. If a negotiation strategy, or strategies, is/are specified in the selection statement, provide a discussion below of how this was addressed and resolved.

of Total Project Costs must be kept aside from the project budget as contingency for the project. This contingency is applicable to total project costs (BP2 forward) and will be verified by the Project Officer as requested and discussed in the Contingency Appendix that will be attached to the award. Contingency will be reported and tracked as well to address the requirement per the Selection Statement.

3. Any other comments or concerns of the Project Officer and/or Specialist for this award, and the recommended approach to mitigating them, will be explained and addressed below.

All comments and concerns have been previously noted.

4. Is this a Recovery Act award? ☒ Yes ☐ No
   - If Yes, does the Buy American Act apply (see applicability below)? ☐ Yes ☒ No
   - If Yes, does Davis Bacon Act apply (see applicability below)? ☒ Yes ☐ No

   If the answer to either the Buy American Act or Davis Bacon Act questions is Yes, provide a short discussion below on: 1) the type of entity; 2) what applies; Davis Bacon, Buy American, or both; 3) whether it applies to the prime, subrecipient, or both; and 4) work to be performed that requires applicability of Buy American and/or Davis Bacon.

Algenol Biofuels Inc. is subject to the Davis Bacon Act, particularly in Budget Period 2. It will apply to the Recipient and their subrecipients. Budget Period 2 will include construction activities that are subject to the Davis Bacon Act.

REDACTED
EXEMPTION 5

- deliberative process

Subrecipient: The Dow Chemical Company

SECTION II – NEGOTIATION SUMMARY

1. Please record any significant application or budget submissions that resulted in a revised budget in the Negotiation History Table below (including SF424A, budget justifications, e-mails, etc.):

Application/Budget Submission	Reference Document(s)	Date of Submission	Summary of Change
Original		Jun-09	
Revision #1	123.1.; SF424A	1/10/2010	Updated budget to remove some BP2 activities and contigency
Revision #2	123.1: SF424A	3/11/2010	Provided 123.1
Revision #3	123.1: SF424A	4/21/2010	Revised 123.1
Final		5/28/2010	Additional justification for personnel and use of cost share was provided

2. Complete Budget Table below (only include the original budget and final negotiated costs – the Percent of Total Negotiated Budget will calculate automatically)
Note: List proposed amounts by category even if there are no differences in the dollar amount.

Element of Cost	Original BP1 Budget Submission	Final BP1 Negotiated Costs	Percent of Total Negotiated Budget	Fringe Benefits and Indirects	
				Proposed Rate	Negotiated Rate
Personnel					
Fringe Benefits					
Travel					
Equipment					
Supplies		REDACTED EXEMPTION 4			
Contractual					
Construction					
Other					
Total Direct Charges					
Indirect Charges					
TOTAL					
Program Income	0	0	0%		
DOE Share (non-FFRDC)	$2,150,008	$1,416,520			
DOE Share (FFDRC)	$0	$0			
Total DOE Share	$2,150,008	$1,416,520			
Non-Federal Cost Share					

SEE ATTACHED SF 424A FOR BUDGET PERIOD BREAKDOWN

9. Indirect Charges:

Total Negotiated Indirect Costs: $ REDACTED EXEMPTION 4 Not Applicable, the recipient did not propose indirect costs: ☐

Original Budget:$

REDACTED
EXEMPTION 5

- deliberative process

10.

Project Officer:

Project is a: ☒ Research ☒ Development ☐ Demonstration ☐ Other: Pilot Project, BP1 (Explain)

The minimum recipient's cost share required for this award is: 20%

The recipient proposed cost share for this award is: REDACTED % Dow Chemical Company has proposed % of their Budget Period I costs as cash cost share, totaling $. EXEMPTION 4 The Phase 1 cost share was confirmed to include only Photobioreactor development costs.

Does the proposed cost share meet the minimum requirement: ☒ Yes ☐ No

Specialist:

Is the proposed cost share: ☒ Cash ☐ In-kind

Third Party cost share commitment letters have been obtained: ☒ (Please include letters in permanent STRIPES file)

-
- REDACTED
  EXEMPTION 5

  - deliberative process
-
-

Really Great Job!

From: Unsworth, Brian, Mr, DCAA [Brian.Unsworth@dcaa.mil]
Sent: Wednesday, July 07, 2010 6:13 AM
To: Mundell, Kristy (KR)
Cc: Roberts, Lynne, Ms, DCAA; Daily, Cheri, Ms, DCAA; Dawn, David, Mr, DCAA
Subject: Dow Chemical 2010 Provisional Billing Indirect rates

Kristy:

REDACTED
EXEMPTION 5
- deliberative process

Brian M. Unsworth CPA
Supervisory Auditor
Great Lakes Branch Office
734-805-3088

From: Katie McFadden [Katie.McFadden@Algenolbiofuels.com]
Sent: Thursday, July 22, 2010 5:39 AM
To: Hames, Molly
Cc: Sterner, Christy; English, Christine; Tara Lambert
Subject: Re: DE-EE0002867 - Algenol - Indirects

Hi Molly,

OK.

We will make the adjustment on our end as well and adjust our billing accordingly.

If you need anything else, let us know.

Cheers,

katie
On Jul 21, 2010, at 1:34 PM, Hames, Molly wrote:

> Hello Katie,
> Just to confirm our discussion the other day. It is acceptable to use
>
>
>
>
>
>
> Please let me know if this is acceptable. If you have questions please
> call me. I am in a meeting from 12-3 (MST) today, but will be
> available after that.
>
> Molly Hames
> Grants & Agreements Specialist
> U.S. Department of Energy
> Golden Field Office
> 1617 Cole Blvd. Golden, CO 80401
> Phone: 303-275-4864
> Fax: 303-275-4754
>
> <4-21-10 PMC 123.1.xls>

REDACTED
EXEMPTION 4

From: Lavergne, Pamela
Sent: Monday, April 19, 2010 3:39 PM
To: Hames, Molly
Cc: Schledorn, Michael; Sterner, Christy; English, Christine
Subject: RE: DE-EE0002867 - Algenol Biofuels, Inc. - C/P Review
Attachments: PMC420_3_EE0002867_Algenol Biofuels_FINAL.doc; EE0002867 _Calculations_Algenol_BY1.xls

Please find review and associated comments/recommendations.

Thank you,
Pam

Pam Lavergne
U.S. Department of Energy
Contract Cost/Price Analyst
Direct: 720-356-1474
FAX: 720-356-1550

"Land of the Free, Because of the Brave"

-----Original Message-----
From: Hames, Molly
Sent: Monday, April 12, 2010 12:08 PM
To: GO CostPrice
Subject: DE-EE0002867 - Algenol Biofuels, Inc. - C/P Review

Hello,
I would like to request a Cost/Price review for Algenol Biofuels, Inc. Budget Period 1 was awarded with the Reopener clause added, so we are hoping to get these approved to remove this clause.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

PMC 420.3
(12/09)

U.S. DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CENTER

REQUEST FOR COST PRICE ASSISTANCE

Award No./DUNS	DE-EE0002867/80-039-9904	Awardee: (Legal Name in CCR)	ALGENOL BIOFUELS INC.
Specialist:	Molly Hames	Project Officer:	Christy Sterner
Requestor:		Project Monitor:	Christine English
Business Contact Name:	Craig Smith	Business Contact Ph. No:	239-498-2000
Business Contact Email:	craig.smith@algenolbiofuels.com	Date of Request:	04/12/2010
Program Area:	Biomass Program	Award Type: ☒ Recovery	☐ CDP ☐ Other_____

Complete Section and Forward to Analyst for Completion

SPECIALIST: Mark below whether pre-award, post award, or audit and provide any comments or special needs:

1) ☒ Pre-award Proposal- submitted documents should include budget documents summary and detail, additional supporting information to support proposed calculations. **Comments:**

There are three sub-recipients for this project: Georgia Institute of Technology ($ REDACTED EXEMPTION 4 Membrane Technology and Research Inc. ($ and the Dow Chemical Company ($ These budgets are included with this request. Georgia Tech already has an existing rate agreement with DHHS, it appears that Membrane TRI had a previous rate agreement in 2004, and it also appears that there was a previous rate agreement with the Dow Chemical Company in 2006 in the W Drive.

COST PRICE ANALYST: **Findings, Recommendations & Comments:**

I have reviewed the proposed indirect costs associated with Award No. DE-EE0002867 to determine if the indirect costs proposed for the Recipient, Algenol Biofuels, Inc., are reasonable, allocable and allowable and in accordance with 10 CFR 600 and FAR 31.205.

DOE Golden is Cognizant for the Recipient and an Indirect Rate Proposal (IRP) was provided in conjunction with this review, based on 2009 YTD actual costs through the Recipient's fiscal yearend December. The IRP appropriately segregated indirect from direct costs and properly excluded unallowable cost elements. This Recipient has had no prior Federal awards and I worked with Craig Jones in January 2010 regarding a few issues from their first submission and development of their IRP. The information provided by the recipient for development of the fringe and indirect rates proposed offers a level of detail to make the following recommendation for Budget Year One (follow-on year's budget estimations are not finalized).

The proposed fringe costs for year one of $ Ex. 4 % against the labor base proposed for that year of $ Ex. 4 The fringe pool consists of the allowable elements as offered by the Recipient to their employees and represented in the Recipient's information. These elements include payroll taxes, medical, workers compensation, and childcare expense.

Consistent with the IRP provided, the proposed indirect costs for year one of $ are calculated using the IRP rate of % against the base of modified total direct costs $ Ex. 4 xcluding Contractual expenses, but including Vendor costs. {Reference Excel spreadsheet for specific calculations}.

For the Budget Year One information, I recommend accepting the Fringe Rate of % and associated costs of $ as well as the Indirect Rate of % and associated costs of $ Ex. 4 These costs are considered reasonable, allocable and allowable and no exception is taken with the application of the proposed rates. I recommend the Contract Specialist confirm the Recipient understands for the follow-on years, the DOE will need to have appropriate incurred cost information prior to adjusting the rates to determine the reasonableness in adjusting these rates. At this point using rates consistent with Year one is reasonable for estimating purposes of deriving the full award fringe and indirect costs proposed. For this review, I was informed there was no audit provided, although an A-133 was conducted according to the Recipient. Therefore, further determination regarding the level of cost risk was not confirmed.

The three Sub-Recipients which have proposed budget under this award (and commented on above) have rate agreements in place with their perspective Cognizant Agency/Office, including DOW Chemical which has listed the most current rate information in their budget justification for 2008 and confirmed with the DCAA office on 4/19/2010. The Contract Specialist will make the determination of the application of the rates for the estimated budgets proposed.

Completed by: Pam Lavergne Date: April 19, 2010

Reviewed by: Lisa Artz Date: 04/19/2010

RECIPIENT: **Rate Calculation Worksheet / Notes**

ALGENOL BIOFUELS INC. (EE0002867)

	PROPOSED						DIFFERENCE		CALCULATED			
	Budget Period 1	Budget Period 2	Budget Period 3	Total (All Years)	Rate(s)	RECOMMEND	Budget Year 1	Delta (All Years)	Budget Period 1	Budget Period 2	Budget Period 3	Total (All Years)
Labor	Exemption 4						Exemption 4		Exemption 4			
Labor:												
									$			
Total Labor									$			
Fringe Rates						NOTE 1 **						
Total Fringe						19.5%			$			
Applied Rate												
Labor Incl. Fring									$			
Travel									$			
Equipment									$			
Supplies									$			
Georgia Tec									$			
MTF									$			
Dow Chemica									$			
Sub-Recipient									$			
Vendor									$			
FFRDC									$			
Contractual									$			
ODC									$			
Total Direct						NOTE 2			$			
Indirect Cost						73.9%			$			
Rate Applied												
Total Award									$			

NOTES:

(1) Fringe proposed against direct & indirect labor for allowable elements in accordance with Recipient's IRP.

(2) Previously reviewed Recipient's IRP (Jan 2010). With updated information, the application of the indirect rate proposed for Year One (under review), provides no exceptions. Will need to review BY2 & 3 after finalization of budgets for review.

** DOE Golden is Cognizant.

From: Hames, Molly
Sent: Thursday, April 22, 2010 10:14 AM
To: 'craig.smith@algenolbiofuels.com'
Cc: Sterner, Christy
Subject: FW: Algenol Rate Agreement
Attachments: PMC450_2_Prov_RA_2010_Algenol.jpg; PMC450_3_Prov_Billing_Rate_Cover_Letter.doc

Hello Craig,
Our Cost/Price Analyst has reviewed your indirect rate proposal. Attached is a cover letter, which includes your provisional rate agreement.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Lavergne, Pamela
Sent: Thursday, April 22, 2010 7:47 AM
To: Hames, Molly
Subject: Algenol Rate Agreement

Please provide to the Recipient.

Thank you,
Pam

Pam Lavergne
Contract Cost/Price Analyst
U.S. Department of Energy, Golden Field Office
1617 Cole Blvd, Golden CO 80401-3305
Direct: 720-356-1474
FAX: 720-356-1550
pamela.lavergne@go.doe.gov

"Not everyone can serve, but everyone can support."

Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

PROVISIONAL BILLING / BIDDING RATE AGREEMENT

Awardee: Algenol Biofuels, Inc.

Applicable Period: 2010

The U.S. Department of Energy hereby approves the following provisional rates for billing purposes as requested and confirmed by review dated April 19, 2010. The rates are approved for your **Fiscal Year 2010** beginning January 2010 and ending December 2010 and supersede any prior approvals.

INDIRECT COST RATES:

Indirect Cost Pool	Billing Rate	Allocation Base
Fringe	REDACTED EXEMPTION 4	(a)
Indirect Rate		(b)

BASIS FOR ALLOCATION:

(a) Total Labor Dollars
(b) Modified Total Direct Cost, including vendor costs, excluding subcontractor costs.

Pending establishment of final indirect cost rates, you may bill for indirect expenses using the above rates for the period specified for existing Government contracts, grants, or cooperative agreements. However, this approval shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in such awards. Additionally, if any award contains indirect rate ceilings, and these ceilings are less than the above rates, the lesser rate shall prevail.

Acceptance of these provisional rates for billing purposes does not imply final acceptance nor commit the Government to any specific rate in final rate negotiations.

Nothing herein shall be construed to prejudice, waive, or in any other way affect any rights of the Government under the provisions of any contracts, grants, or other cooperative agreements respecting limitation of the Government's obligation hereunder.

This agreement is effective as of the date of this letter. Questions regarding this agreement should be directed to my attention at the address below.

For the U.S. Department of Energy:

Ms. Lisa Artz
Administrative Contracting Officer
Indirect Cost Rate Management
1617 Cole Boulevard
Golden, Colorado 80401-3393

April 20, 2010
Date

Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

April 19, 2010

Dear Recipient,

As the Cognizant U.S. Department of Energy (DOE) Office for your organization, we have approved provisional billing rates per the attached Indirect Cost Rate Agreement.

In accordance with applicable Federal regulations (FAR 42.7 and/or 10 CFR 600.103) governing indirect cost rates for your award(s), billing rates are not to be construed as determinative of the indirect costs to be distributed or of the bases of distribution to be used in the final settlement of your award(s).

You are expected to monitor the approved billing rates and notify your Administrative Contracting Officer in writing of any substantial change in the indirect rates. Adequate documentation supporting requests for revised billing rates must also be provided.

You are reminded to submit your proposed final indirect cost rates for each fiscal year to the Contracting Officer no later than six (6) months after the end of that fiscal year. The proposed final rates should be based on actual costs incurred and be supported by adequate cost data.

In compliance with the payment clause of your award(s), we are requesting that you make any appropriate invoice adjustments to reflect the approved provisional billing rates for all active DOE, and other Federal agency, awards. Audit adjustments should be clearly delineated so as to be readily identifiable for verification by auditors. Care should be taken that amounts claimed do not exceed cost limitations or indirect cost rate ceilings contained in any awards.

If you have any questions, please contact the Contract Specialist(s) associated with your award(s). If they are unable to address your questions, a representative from the Indirect Cost Rate Management Team will follow up with a response.

Thank you for your consideration,
Indirect Cost Rate Management Team

Enclosure: Provisional Indirect Rate Agreement

Tara Lambert
tara.lambert@algenolbiofuels.com

From: Sterner, Christy
Sent: Monday, July 26, 2010 7:06 PM
To: Hames, Molly
Subject: FW: Changing Katie McFadden to Business Officer

Importance: High

Hi Molly,

Per Craig's request below, please update the Business Contact for Algenol's award to Katie McFadden, Algenol's CFO.

Thanks and best regards,

Christy Sterner
U.S. DOE

Go to http://www.eere.energy.gov/golden/funding.aspx for important news regarding Grants.gov.

-----Original Message-----
From: Craig Smith [mailto:craig.smith@algenolbiofuels.com]
Sent: Monday, July 26, 2010 6:58 PM
To: Sterner, Christy
Subject: Re: Changing Katie McFadden to Business Officer
Importance: High

Dear Christy:

Please change the name of the Business contact for Algenol's DOE grant from Craig R. Smith, M.D. to Katie McFadden, Algenol's CFO. Thank you.

Craig R. Smith, M.D.
Chief Operating Officer
Algenol Biofuels Inc.

239-498-2000
craig.smith@algenolbiofuels.com

On Jul 26, 2010, at 4:34 PM, Sterner, Christy wrote:

> Hi Craig,
>
> I'm sorry for the confusion, but we need an email from you requesting
> changing the Business contact from you to Katie. Can you send me a
> quick email requesting that change?
>
> Thanks for your help!
>
> Best regards,
>
> Christy Sterner
> Project Officer

> U.S. Department of Energy
> Golden Field Office
> Phone: 303-275-4720
> Fax: 303-275-4753
> email: christy.sterner@go.doe.gov
>
> Go to http://www.eere.energy.gov/golden/funding.aspx for important
> news regarding Grants.gov.
>
>

AWD-018 Correspondence - Questions on DOW Submittal to Algenol Project

From: Dibbs, Mitch (MG) [mgdibbs@dow.com]
Sent: Friday, May 28, 2010 9:01 AM
To: Sterner, Christy
Cc: Mundell, Kristy (KR)
Subject: RE: Questions on DOW Submittal to Algenol Project
Attachments: Algenol Labor by Title.xls

Follow Up Flag: Follow up
Flag Status: Flagged

Christy,

Attached is a summary table that gives the job titles, number of individuals with that title, total hours, and total labor dollars for each title for Dow's Phase 1 activities.

Is this information sufficient for your needs? Is there anything else that you require for your review?

Concerning your question on cost share; the referenced statement pertains to activities in Phase 1, 2 & 3. All site preparation and support activities were moved from Phase 1 to Phase 2 at the request of Algenol. The Phase 1 cost share includes only Photobioreactor development costs.

If there are any other questions please feel free to contact Kristy or me.

Regards,

Mitch

Mitchell Dibbs
External Technology
The Dow Chemical Company
1776 Building
Midland, Michigan 48674
Tel: (989)636-1202
Fax: (989)636-1705
mgdibbs@dow.com
www.dow.com

-----Original Message-----
From: Sterner, Christy [mailto:christy.sterner@go.doe.gov]
Sent: Tuesday, May 25, 2010 5:44 PM
To: Dibbs, Mitch (MG)
Subject: Questions on DOW Submittal to Algenol Project
Importance: High

Hi Mitch,

At the end of March, we had contacted Katie McFadden at Algenol with some questions about your submittal to their project. She indicated that I could contact you directly with my questions or to request additional information. Unfortunately, I misread the email and thought you were sending me the information rather than me contacting you to request it; hence, the delay. I apologize for that confusion. As you are aware, I'm sure, we are working to lift the conditions on your Budget Period 1 funding within Algenol's award. In order to do so, there are a few outstanding items that need to be addressed.

On DOW's budget justification form, PMC 123.1, personnel costs are estimated at $ Ex. 4 for BP1. While great detail was provided in the spreadsheet, we need a bit more information. It's not necessary to list the personnel by name; in fact, we would prefer that you did not. Please provide the personnel list by title/position rather than by name. There are a few reasons for this...the

main reason is to further protect DOW's payroll information. Secondly, we justify estimated personnel costs based on reasonable pay for a specific position within a specific area.
Do we get into the details of experience levels, etc.? No. We generally look at positions and their associated rates from a higher level - meaning, for example, is the pay rate within a reasonable range based on our experience with similar positions doing similar work for similar projects? If there is a rate that seems too high or too low, we may ask about it further, but in general, we don't usually find that situation.
I also understand that this is not the type of information that you would like to pass through the Prime and that you would prefer to submit directly. That, too, is understandable. In fact many subcontractors on projects request the same thing.

We will also need to know the rates associated with the positions. This information will be used for evaluating DOW's budget only and will not be provided to Algenol. If you have concerns about emailing this information to me, please contact me and will find another way for DOW to submit this information directly to me at DOE.

Please feel free to send this in the format that works best for you. If you want to revise your PMC 123.1 to reflect this information, that's fine. If you prefer to send a separate spreadsheet, that would work, too.

The next question is in regard to cost share. On DOW's PMC 123.1, cost share

REDACTED
EXEMPTION 4

These are two of the last remaining items we need in order to move forward with the amendment to lift your funding. Please submit this information as soon as possible and we'll move quickly to review it and move the amendment forward. If you have any questions or concerns, please contact me directly either by phone or email as noted below.

Thank you for your time and attention to this request and I look forward to working with you on Algenol's exciting project.

Best regards,

Christy Sterner
Project Officer
U.S. Department of Energy
Golden Field Office
Phone: 303-275-4720
Fax: 303-275-4753
email: christy.sterner@go.doe.gov

Go to http://www.eere.energy.gov/golden/funding.aspx for important news regarding Grants.gov.

From: Mundell, Kristy (KR) [KRMundell@dow.com]
Sent: Thursday, August 12, 2010 9:10 AM
To: Hames, Molly
Cc: Dibbs, Mitch (MG); Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW
Attachments: Dow Chemical 2010 Provisional Billing Indirect rates

Molly,

Below is the breakdown of the Year 1 indirect costs using the 2010 provisional billing rates. Attached is the email from DCAA indicating approval of the 2010 provisional billing rates.

Please note, Dow is not requesting any additional funding from DOE. Dow will pay for any excess costs over the total DOE funding of $
as originally proposed.

REDACTED
EXEMPTION 4

If you have any questions, please do not hesitate to contact me.

Regards,

Kristy Mundell
Functional Controllers - U.S. Government Contracts

The Dow Chemical Company
2020 Dow Center
Midland, MI 48674
Phone: 989-638-9831 Fax: 989-636-0380
Email: krmundell@dow.com

-----Original Message-----
From: Hames, Molly [mailto:molly.hames@go.doe.gov]
Sent: Monday, August 09, 2010 4:40 PM
To: Dibbs, Mitch (MG); Mundell, Kristy (KR)

Cc: Sterner, Christy; Englis Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
I just wanted to check in and see if you had any questions. This is the last item we need before the remaining conditions can be lifted for Budget Period 1. Please feel free to call me.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Hames, Molly
Sent: Monday, August 02, 2010 12:34 PM
To: 'mgdibbs@dow.com'; 'krmundell@dow.com'
Cc: Sterner, Christy; English, Christine
Subject: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
We are reviewing your budget submitted as a contractor to Algenol Biofuels, Inc. I only had a few questions. The first is, could we please have a copy of your indirect rate agreement with DCAA? The second is, would you mind providing me with how you calculated the proposed indirect costs of $ in the attached budget submission?

Since the personnel costs have been grouped into three categories (Technologist, R&D, Scientist, R&D, Sr. Research Specialist, R&D), I calculated the indirect rate as follows:

Base Item	Base Cost	Rate
Indirect Cost		

REDACTED
EXEMPTION 4

costs. This is why I am requesting a breakdown of the indirect costs. Please contact me with any questions.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864

Fax: 303-275-4754

From: Hames, Molly
Sent: Thursday, August 12, 2010 2:48 PM
To: 'Mundell, Kristy (KR)'
Cc: Dibbs, Mitch (MG); Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
This email is to confirm that using the DCAA approved provisional billing rates for 2010,

REDACTED
EXEMPTION 4

difference as cost share.

Also, please confirm that the $ referenced in the line, 'Dow will pay for any excess costs over the total DOE funding of $ as originally proposed.' is in reference to Dow's originally proposed total project costs, $, minus cost share contributions.'

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Mundell, Kristy (KR) [mailto:KRMundell@dow.com]
Sent: Thursday, August 12, 2010 9:10 AM
To: Hames, Molly
Cc: Dibbs, Mitch (MG); Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Molly,

Below is the breakdown of the Year 1 indirect costs using the 2010 provisional billing rates. Attached is the email from DCAA indicating approval of the 2010 provisional billing rates.

Please note, Dow is not requesting any additional funding from DOE. Dow will pay for any excess costs over the total DOE funding of $
as originally proposed.

R&D Labor
Non-R&D Labor
Total Direct Costs

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EXEMPTION 4

R&D Overhead -
Non-R&D Overhead -

Total Overhead

Total Direct & Overhead

REDACTED
EXEMPTION 4

ASE -
(ASE is the Administrative Services Expense.
ASE is applied to Total Direct & Overhead)

Grand Total

If you have any questions, please do not hesitate to contact me.

Regards,

Kristy Mundell
Functional Controllers - U.S. Government Contracts

The Dow Chemical Company
2020 Dow Center
Midland, MI 48674
Phone: 989-638-9831 Fax: 989-636-0380
Email: krmundell@dow.com

-----Original Message-----
From: Hames, Molly [mailto:molly.hames@go.doe.gov]
Sent: Monday, August 09, 2010 4:40 PM
To: Dibbs, Mitch (MG); Mundell, Kristy (KR)
Cc: Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
I just wanted to check in and see if you had any questions. This is the last item we need before the remaining conditions can be lifted for Budget Period 1. Please feel free to call me.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

-----Original Message-----
From: Hames, Molly
Sent: Monday, August 02, 2010 12:34 PM
To: 'mgdibbs@dow.com'; 'krmundell@dow.com'
Cc: Sterner, Christy; English, Christine
Subject: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,
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Since the personnel costs have been grouped into three categories (Technologist, R&D, Scientist, R&D, Sr. Research Specialist, R&D), I calculated the indirect rate as follows:

Base Item	Base Cost	Rate
Indirect Cost		

REDACTED
EXEMPTION 4

costs. This is why I am requesting a breakdown of the indirect costs. Please contact me with any questions.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

From: Dibbs, Mitch (MG) [mgdibbs@dow.com]
Sent: Monday, August 09, 2010 3:16 PM
To: Hames, Molly
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Molly,

I should have a response for you on Wednesday.

Regards,
Mitch

Mitchell Dibbs
External Technology
The Dow Chemical Company
1776 Building
Midland, Michigan 48674
Tel: (989)636-1202
Fax: (989)636-1705
mgdibbs@dow.com
www.dow.com

-----Original Message-----
From: Hames, Molly [mailto:molly.hames@go.doe.gov]
Sent: Monday, August 09, 2010 4:40 PM
To: Dibbs, Mitch (MG); Mundell, Kristy (KR)
Cc: Sterner, Christy; English, Christine
Subject: RE: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

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Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
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Fax: 303-275-4754

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Sent: Monday, August 02, 2010 12:34 PM
To: 'mgdibbs@dow.com'; 'krmundell@dow.com'
Cc: Sterner, Christy; English, Christine
Subject: DOE Award: DE-EE0002867 - Algenol - Subcontractor DOW

Hello,

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Indirect Cost		

REDACTED
EXEMPTION 4

costs. This is why I am requesting a breakdown of the indirect costs. Please contact me with any questions.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

STATEMENT OF PROJECT OBJECTIVES
Algenol Biofuels Inc.
Pilot-Scale Integrated Biorefinery for Producing Ethanol from Hybrid Algae

A. PROJECT OBJECTIVES

Exemption 4

B. PROJECT SCOPE

The DOE Office of Energy Efficiency and Renewable Energy (EERE) has established performance goals. Among these goals are to: 1) dramatically reduce, or even end, dependence on imported oil; and 2) spur the creation of the domestic bio-industry. To that end, the Office of the Biomass Program is offering to fund integrated biorefinery projects under this FOA entitled "Demonstration of Integrated Biorefinery Operations". The FOA lists three main criteria for selection; 1) technical merit and rationale, 2) credible economics and competitive advantages that justify an award, and 3) knowledge and experience in project management.

Algenol and its collaborators, The Dow Chemical Company, National Renewable Energy Laboratory, Membrane Technology & Research Inc., and The Georgia Institute of Technology, have collectively prepared an application that is responsive to the selection criteria as detailed below.

Exemption 4

Exemption 4

C. TASKS TO BE PERFORMED

Exemption 4

Exemption 4

Exemption 4

Exemption 4

ALGENOL
BIOFUELS
DIRECT TO ETHANOL™

Pilot-Scale Integrated Biorefinery
Simplified Process Flow Diagram

Redacted
Exemption 4

Detailed blueprints for the Algenol pilot-scale integrated biorefinery are located in the final four pages of the PFD_Data document:
Sheet 1: Site Layout and Notes
Sheet 2: Operations Layout
Sheet 3: Detailed Process Flow Diagram
Sheet 4: Notes and Electrical Loads

Proprietary Information: All information in this document is proprietary. Algenol Biofuels requests all information in this document not be released to persons outside the Government, except for the purposes of review and evaluation.

Process Flow Diagram Step 1

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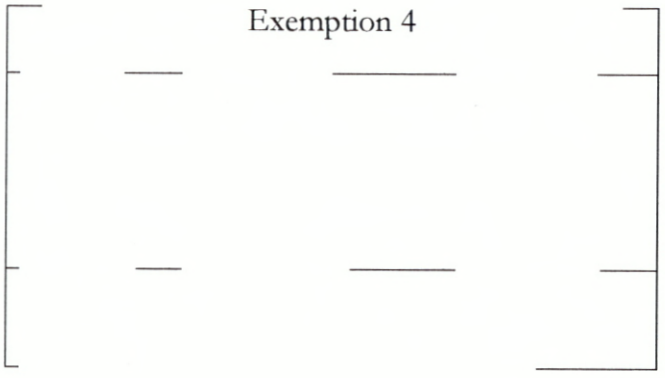

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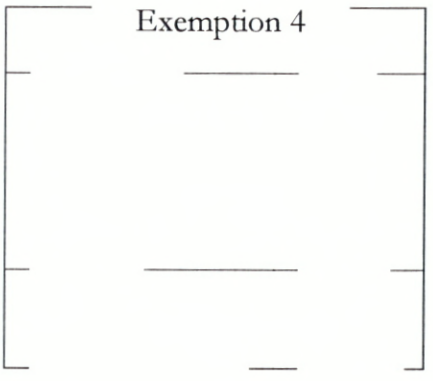

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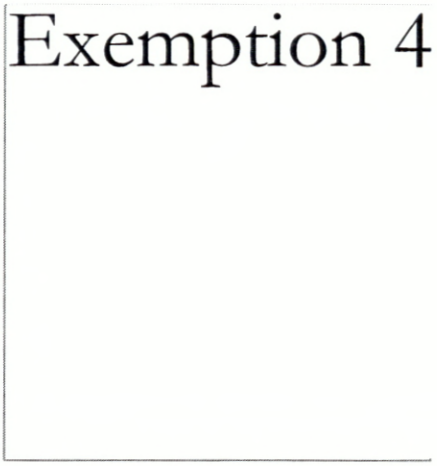
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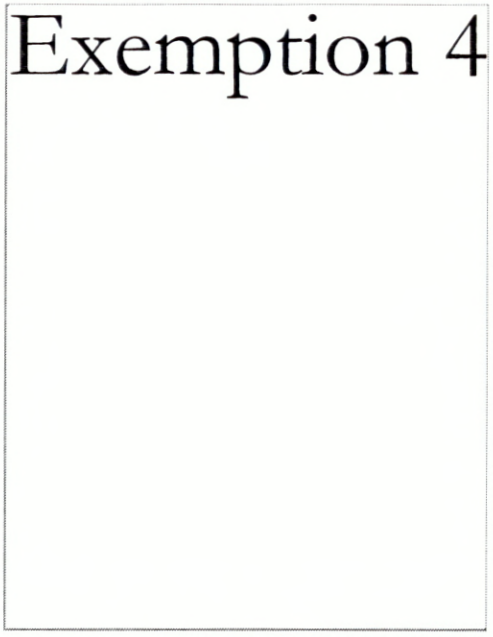
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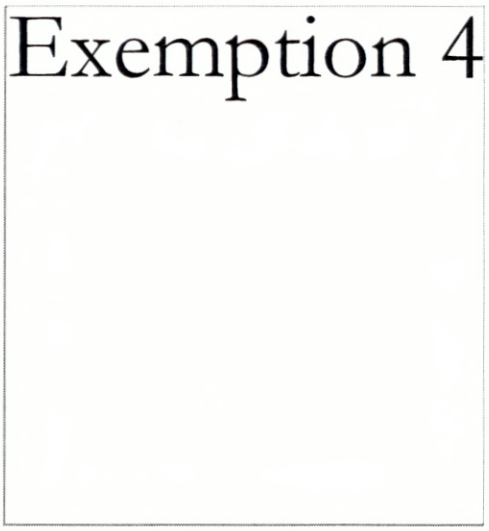
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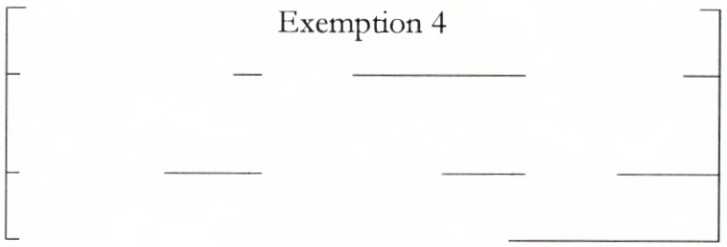

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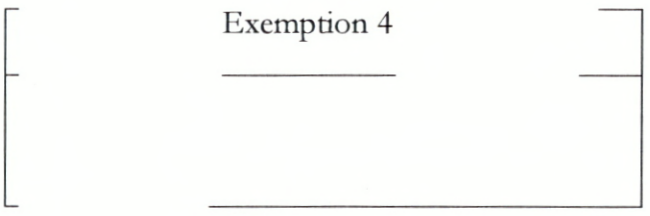

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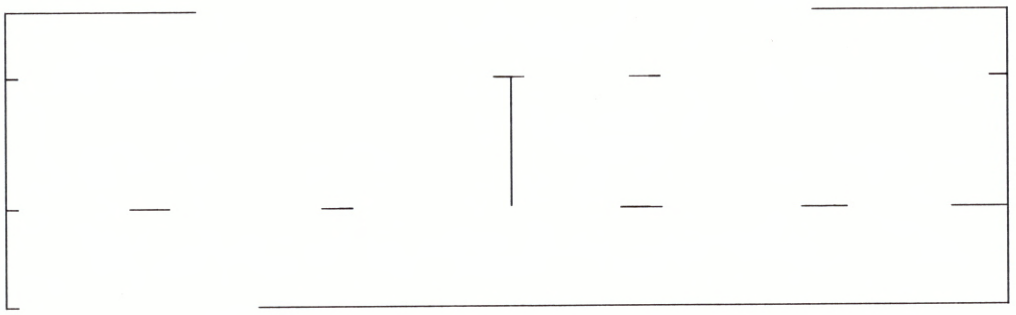
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