Applicant Name: Algenol Biofuels Inc. Award Number: Year 3

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				Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$0		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	Exemption 4			
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)				

Section D - Forecasted Cash Needs

	Total For First Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$10,122,637	$2,250,406	$2,479,452	$2,625,834	$2,766,943
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		$0	$0	$0
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	A provisional indirect was used

23. Remarks

Although the FOA requests the SF424 by "budget periods" we have also included one by year.

Applicant Name: Algenol Biofuels Inc. Award Number: Year 4

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				Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$0		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	Exemption 4			
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)				

Section D - Forecasted Cash Needs

	Total For First Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$10,122,637	$2,250,406	$2,479,452	$2,625,834	$2,766,943
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		$0	$0	$0
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 A provisional indirect was used

23. Remarks

Although the FOA requests the SF424 by "budget periods" we have also included one by year.

Applicant Name: Algenol Biofuels Inc. Award Number: Year 5

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				Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$0		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	Exemption 4			
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)				

Section D - Forecasted Cash Needs

	Total For First Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$10,122,637	$2,250,406	$2,479,452	$2,625,834	$2,766,943
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		$0	$0	$0
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	A provisional indirect was used

23. Remarks

Although the FOA requests the SF424 by "budget periods" we have also included one by year.

Applicant Name: Algenol Biofuels Inc. Award Number: Total Project

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			$25,000,000	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$25,000,000		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	$31,671,184	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$31,671,184			

Section D - Forecasted Cash Needs

	Total Budget Period 1	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$9,669,386	$2,342,099	$2,645,510	$2,758,464	$1,923,312
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 - Phase !!	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096	$15,330,614	$0	$0	$0
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$15,330,614	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks Per page 15 in the FOA, the funding is based on Phases / Periods not years. Accordingly, the Forecasted Cash Needs in section D above agrees to the Phase I Total Project costs in the Budget justification file (in our case this is an 11 month period). In Section E, again we based it on Budget Periods as directed by the FOA. We have yearly information available and have included that as well. All tabs are labeled accordingly.

Applicant Name: Algenol Biofuels Inc. Award Number: Phase I

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			$10,722,046	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$10,722,046		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	$2,105,796	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$2,105,796			

Section D - Forecasted Cash Needs

	Total Budget Period 1	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$10,722,046	$2,605,265	$2,908,675	$3,021,629	$2,186,477
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 - Phase II	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096	$14,277,954	$0	$0	$0
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$14,277,954	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

Per page 15 in the FOA, the funding is based on Phases / Periods not years. Accordingly, the Forecasted Cash Needs in section D above agrees to the Phase I Total Project costs in the Budget justification file (in our case this is an 11 month period). In Section E, again we based it on Budget Periods as directed by the FOA. We have yearly information available as well but wanted to follow the guidelines of the FOA.

Applicant Name: Algenol Biofuels Inc. Award Number: Phase II

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			$14,277,954	Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$14,277,954		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	$20,873,531	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$20,873,531			

Section D - Forecasted Cash Needs

	Total Budget Period II	1st Quarter	2nd Quarter	3rd Quarter	4th quarter*
13. Federal	$14,277,954	$5,956,601	$7,797,363	$523,990	
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 - Phase !!	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096		$0	$0	$0
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 A provisional indirect was used

23. Remarks

* Since Phase II is a 25 month budget period, the 4th "quarter" was used to capture the remaining months (July '11 - December 12). The cash needs were not affected since Federal Funds were depleted in the prior quarter

Applicant Name: Algenol Biofuels Inc. Award Number: Phase III

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				Exemption 4	
2.						
3.						
4.						
5. Totals		$0	$0	$0		

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) DE-FOA-0000096	(2)	(3)	(4)	
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	$14,496,909	Exemption 4		
9.				
10.				
11.				
12. **Total** (sum of lines 8 - 11)	$14,496,909			

Section D - Forecasted Cash Needs

	Total Budget Period III	1st Quarter	2nd Quarter	3rd Quarter	4th quarter*
13. Federal					
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 - Phase !!	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0000096		$0	$0	$0
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	A provisional indirect was used

23. Remarks

* Since Phase III is a 24 month budget period, the 4th "quarter" was used to capture the remaining months (July '13 - December '14). No Federal Funds were requested for this period.

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

FAR 52.227-12 Patent Rights - Waiver (JUL 1996), as modified by 10 C.F.R. 784, DOE Patent Waiver Regulations and U.S. Competitiveness clause

PATENT RIGHTS - WAIVER (JUL 1996)

(a) Definitions.
As used in this clause:

Background patent means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Contractor at any time through the completion of this contract:

(i) Which the Contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and

(ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

Contract means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

DOE patent waiver regulations means the Department of Energy patent waiver regulations at 10 CFR Part 784.

Invention as used in this clause, means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

Patent Counsel means the Department of Energy Patent Counsel assisting the procuring activity.

Practical application means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

Secretary means the Secretary of Energy.

Small business firm means a small business concern as defined at Section 2 of the Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

Subject invention means any invention of the Contractor conceived or first actually reduced to practice in the course of or under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act (7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(b) Allocation of principal rights.

Whereas DOE has granted a waiver of rights to subject inventions to the Contractor, the Contractor may elect to retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. "202 and 203. With respect to any subject invention in which the Contractor elects to retain title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention disclosure, election of title, and filing of patent applications by Contractor.

(1) The Contractor shall disclose each subject invention to the Patent Counsel within six months after conception or first actual reduction to practice, whichever occurs first in the course of or under this contract, but in any event, prior to any sale, public use, or public disclosure of such invention known to the Contractor. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the inventors and the contract under which the invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Patent Counsel, the Contractor shall promptly notify the Patent Counsel of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.

(2) The Contractor shall elect in writing whether or not to retain title to any such invention by notifying the Patent Counsel at the time of disclosure or within 8 months of disclosure, as to those countries (including the United States) in which the Contractor will retain title; provided, that in any case where publication, on sale, or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the period of election of title may be shortened by the Agency to a date that is no more than 60 days prior to the end of the statutory period. The Contractor shall notify the Patent Counsel as to those countries (including the United States) in which the Contractor will retain title not later than 60 days prior to the end of the statutory period.

(3) The Contractor shall file its United States patent application on an elected invention within 1 year after election, but not later than at least 60 days prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor shall file patent applications in additional countries

(including the European Patent Office and under the Patent Cooperation Treaty) within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where foreign filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to the Patent Counsel, election, and filing may, at the discretion of DOE, be granted, and will normally be granted unless the Patent Counsel has reason to believe that a particular extension would prejudice the Government's interest.

(d) Conditions when the Government may obtain title notwithstanding an existing waiver.
The Contractor shall convey to DOE, upon written request, title to any subject invention--

(1) If the Contractor elects not to retain title to a subject invention;

(2) If the Contractor fails to disclose or elect the subject invention within the times specified in paragraph (c) of this clause (provided that DOE may only request title within 60 days after learning of the Contractor's failure to report or elect within the specified times);

(3) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of DOE, the Contractor shall continue to retain title in that country;

(4) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention; or

(5) If the waiver authorizing the use of this clause is terminated as provided in paragraph (p) of this clause.

(e) Minimum rights to Contractor when the Government retains title.

(1) The Contractor shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title under paragraph (d) of this clause except if the Contractor fails to disclose the subject invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR part 404 and DOE licensing regulations. This license shall not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the

Contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, DOE shall furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor shall be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable agency licensing regulations and 37 CFR part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(f) Contractor action to protect the Government's interest.

(1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and

(ii) convey title to DOE when requested under paragraphs (d) and (n) (2) of this clause, and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by paragraph (c)(1) of this clause. The Contractor shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Contractor shall notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under (identify the contract) awarded by DOE. The Government has certain rights in this invention."

(5) The Contractor shall establish and maintain active and effective procedures to assure that subject inventions are promptly identified and disclosed to Contractor personnel responsible for patent matters within 6 months of conception and/or first actual reduction to practice, whichever occurs first in the course of or under this contract. These procedures shall include the maintenance of laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions, and records that show that the procedures for identifying and disclosing the

inventions are followed. Upon request, the Contractor shall furnish the Patent Counsel a description of such procedures for evaluation and for determination as to their effectiveness.

(6) The Contractor agrees, when licensing a subject invention, to arrange to avoid royalty charges on acquisitions involving Government funds, including funds derived through Military Assistance Program of the Government or otherwise derived through the Government; to refund any amounts received as royalty charges on the subject invention in acquisitions for, or on behalf of, the Government; and to provide for such refund in any instrument transferring rights in the invention to any party.

(7) The Contractor shall furnish the Patent Counsel the following:

(i) Interim reports every 12 months (or such longer period as may be specified by the Patent Counsel) from the date of the contract, listing subject inventions during that period and certifying that all subject inventions have been disclosed or that there are no such inventions.

(ii) A final report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were no such inventions, and listing all subcontracts at any tier containing a patent rights clause or certifying that there were no such subcontracts.

(8) The Contractor shall promptly notify the Patent Counsel in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Patent Counsel, the Contractor shall furnish a copy of such subcontract, and no more frequently than annually, a listing of the subcontracts that have been awarded.

(9) The Contractor shall provide, upon request, the filing date, serial number and title, a copy of the patent application (including an English-language version if filed in a language other than English), and patent number and issue date for any subject invention for which the Contractor has retained title.

(10) Upon request, the Contractor shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(g) Subcontracts.

(1) Unless otherwise directed by the Contracting Officer, the Contractor shall include the clause at 48 CFR 952.227-11, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or nonprofit organization, except where the work of the subcontract is subject to an Exceptional Circumstances Determination by DOE. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the Contractor shall include the patent rights clause at 48 CFR 952.227-13 (suitably modified to identify the parties).

(2) The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(3) In the case of subcontractors at any tier, the Department, the subcontractor, and Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Department with respect to those matters covered by this clause.

(4) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contracting Officer shall furnish a copy of such subcontract, and, no more frequently than annually, a listing of the subcontracts that have been awarded.

(h) Reporting on utilization of subject inventions.

The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor and any of its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by DOE in accordance with paragraph (j) of this clause. To the extent data or information supplied under this paragraph is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government.

(i) Preference for United States industry.

Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in rights.

The Contractor agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 48 CFR 27.304-1(g) to require the Contractor, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that--

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Background Patents [reserved]

(l) Communications.

All reports and notifications required by this clause shall be submitted to the Patent Counsel unless otherwise instructed.

(m) Other inventions.

Nothing contained in this clause shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention, except with respect to Background Patents, above.

(n) Examination of records relating to inventions.

(1) The Contracting Officer or any authorized representative shall, until 3 years after final payment under this contract, have the right to examine any books (including laboratory notebooks), records, and documents of the Contractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether--

(i) Any such inventions are subject inventions;

(ii) The Contractor has established and maintains the procedures required by paragraphs (f)(2) and (f)(5) of this clause; and

(iii) The Contractor and its inventor have complied with the procedures.

(2) If the Contracting Officer determines that an inventor has not disclosed a subject invention to the Contractor in accordance with the procedures required by paragraph (f)(5) of this clause, the Contracting Officer may, within 60 days after the determination, request title in accordance with paragraphs (d)(2) and (d)(3) of this clause. However, if the Contractor establishes that the failure to disclose did not result from the Contractor's fault or negligence, the Contracting Officer shall not request title.

(3) If the Contracting Officer learns of an unreported Contractor invention which the Contracting Officer believes may be a subject invention, the Contractor may be required to disclose the invention to DOE for a determination of ownership rights.

(4) Any examination of records under this paragraph shall be conducted in such a manner as to protect the confidentiality of the information involved.

(o) Withholding of payment.
NOTE: This paragraph does not apply to subcontracts or grants.

(1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding $50,000 or 5 percent of the amount of the contract, whichever is less, shall have been set aside if, in the Contracting Officer's opinion, the Contractor fails to--

(i) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to paragraph (f)(5) of this clause;
(ii) Disclose any subject invention pursuant to paragraph (c)(1) of this clause;
(iii) Deliver acceptable interim reports pursuant to paragraph (f)(7)(I) of this clause;
(iv) Provide the information regarding subcontracts pursuant to paragraph (f) (6) of this clause; or
(v) Convey to the Government, using a DOE-approved form, the title and/or rights of the Government in each subject invention as required by this clause.

(2) Such reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(3) Final payment under this contract shall not be made before the Contractor delivers to the Patent Counsel all disclosures of subject inventions required by paragraph (c)(1) of this clause, an acceptable final report pursuant to paragraph (f)(7)(ii) of this clause, and all past due confirmatory instruments, and the Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized above. If the maximum amount authorized above is already being withheld under other provisions of the contract, no additional amount shall be withheld under this paragraph. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(p) Waiver Terminations.

Any waiver granted to the Contractor authorizing the use of this clause (including any retention of rights pursuant thereto by the Contractor under paragraph (b) of this clause) may be terminated at the discretion of the Secretary or his designee in whole or in part, if the request for waiver by the Contractor is found to contain false material statements or nondisclosure of material facts, and such were specifically relied upon by DOE in reaching the waiver determination. Prior to any such termination, the Contractor will be given written notice stating the extent of such proposed termination and the reasons therefore, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated. Any waiver termination shall be subject to the Contractor's minimum license as provided in paragraph (e) of this clause.

(q) Atomic Energy.

No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(r) Publication.

It is recognized that during the course of work under this contract, the contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the contractor, approval for release of publication shall be secured from Patent Counsel prior to any such release or publication. In appropriate circumstances, and after consultation with the contractor, Patent Counsel may waive the right of prepublication review.

(s) Forfeiture of rights in unreported subject inventions.

(1) The contractor shall forfeit and assign to the Government, at the request of the Secretary of Energy or designee, all rights in any subject invention which the contractor fails to report to Patent Counsel within six months after the time the contractor:

(i) Files or causes to be filed a United States or foreign patent application thereon; or

(ii) Submits the final report required by paragraph (f)(7)(ii) of this clause, whichever is later.

(2) However, the Contractor shall not forfeit rights in a subject invention if, within the time specified in paragraph (n)(1) of this clause, the contractor:

(i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or

(ii) Contending that the subject invention is not a subject invention, the contractor nevertheless discloses the subject invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer, or

(iii) Establishes that the failure to disclose did not result from the contractor's fault or negligence.

(3) Pending written assignment of the patent application and patents on a subject invention determined by the Contracting Officer to be forfeited (such determination to be a Final Decision under the Disputes clause of this contract), the contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph shall be in addition to and shall not supersede any other rights and remedies which the Government may have with respect to subject inventions.

(t) U.S. Competitiveness

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, *e.g.*, recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment,

license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

(End of clause)

CDSB-1003
Intellectual Property Provisions (CDSB-1003)
Cooperative Agreement - Special Data Statute
Research, Development, or Demonstration
Domestic Small Businesses

01. FAR 52.227-1	Authorization and Consent (JUL 1995)-Alternate I (APR 1984)
02. FAR 52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (AUG 1996) *This clause is not applicable if the award is for less than $100,000, in aggregate*
03. 10 CFR 600.325 Appendix A	Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003) *If the contracting officer, in consultation with DOE patent counsel and the DOE program official, determines that delivery of limited rights data or restricted computer software is necessary, Alternates I and II may be inserted into the clause after negotiations with the applicant.*
04. FAR 52.227-23	Rights to Proposal Data (Technical) (JUN 1987)
05. 10 CFR 600.325 Appendix A	Patent Rights (Small Business Firms and Nonprofit Organizations) (OCT 2003)

NOTE: In reading these provisions, any reference to “contractor” shall mean “recipient,” and any reference to “contract” or “subcontract” shall mean “award” or “subaward.”

01. FAR 52.227-1 Authorization and Consent (JUL 1995)-Alternate I (APR 1984)

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for research and development expected to exceed the simplified acquisition threshold; however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

(End of clause)

02. FAR 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at FAR 2.101.

(End of clause)

03. 10 CFR 600.325 Appendix A, Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003)

(a) Definitions

Computer Data Bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the computer program to be produced, created or compiled. The term does not include computer data bases.

Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to administration, such as financial, administrative, cost or pricing or management information.

Form, fit, and function data, as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability as well as data identifying source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

Limited rights data, as used in this clause, means data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged.

Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and confidential or privileged; or is published copyrighted computer software; including modifications of such computer software.

Protected data, as used in this clause, means technical data or commercial or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b)(4) and which data is marked as being protected data by a party to the award.

Protected rights, as used in this clause, mean the rights in protected data set forth in the Protected Rights Notice of paragraph (g) of this clause.

Technical data, as used in this clause, means that data which are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

Unlimited rights, as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so.

(b) Allocation of Rights

(1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in--

(i) Data specifically identified in this agreement as data to be delivered without restriction;

(ii) Form, fit, and function data delivered under this agreement;

(iii) Data delivered under this agreement (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this agreement; and

(iv) All other data delivered under this agreement unless provided otherwise for protected data in accordance with paragraph (g) of this clause or for limited rights data or restricted computer software in accordance with paragraph (h) of this clause.

(2) The Recipient shall have the right to--

(i) Protect rights in protected data delivered under this agreement in the manner and to the extent provided in paragraph (g) of this clause;

(ii) Withhold from delivery those data which are limited rights data or restricted computer software to the extent provided in paragraph (h) of this clause;

(iii) Substantiate use of, add, or correct protected rights or copyrights notices and to take other appropriate action, in accordance with paragraph (e) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this agreement to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright

(1) Data first produced in the performance of this agreement. Except as otherwise specifically provided in this agreement, the Recipient may establish, without the prior approval of the Contracting Officer, claim to copyright subsisting in any data first produced in the performance of this agreement. If claim to copyright is made, the Recipient shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including agreement number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For such copyrighted data, including computer software, the Recipient grants to the Government, and others acting on its behalf, a paid-up nonexclusive, irrevocable, worldwide license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, for all such data.

(2) Data not first produced in the performance of this agreement. The Recipient shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this agreement any data that are not first produced in the performance of this agreement and that contain the copyright notice of 17 U.S.C. 401 or 402, unless the Recipient identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software, the Government shall acquire a copyright license as set forth in subparagraph (h)(3) of this clause if included in this agreement or as otherwise may be provided in a collateral agreement incorporated or made a part of this agreement.

(3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.