PMC-EF2a

(2.04.02)

# U.S. DEPARTMENT OF ENERGY
## EERE PROJECT MANAGEMENT CENTER
## NEPA DETERMINATION

**RECIPIENT:** General Atomics **STATE:** CA

**PROJECT TITLE :** Novel Heterotrophic Algae Reactor

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| DE-FOA0000337 | DE-EE0005004 | GFO-0005004-001 | 0 |

**Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:**

**CX, EA, EIS APPENDIX AND NUMBER:**

Description:

B3.6 Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

Rational for determination:

DOE is proposing to provide funding to General Atomics to study key factors influencing oil production cost of heterotrophic algae fermentation. General Atomics proposes to design, build, test and evaluate a small scale reactor vessel and then scale up the reactor to a maximum of 500L. DOE funds would be used to develop fermentation related process step which include, corn stover/hydrolysate acquisition and use, building the reactor and associated aeration and mixing component design testing at two scales, and all associated analytical studies to determine improvements. This would involve reactor buildout, capital purchase, equipment installation and modification of this process step.

Genetically modified organisms would not be used or produced in or as a result of this project. All necessary permits are in place and would be provided upon request. No building construction or modification would take place. The reactor system would be assembled and utilized within the existing facilities. All hazardous waste would be disposed of in accordance with the industrial discharge permit. All chemicals are stored within a labeled chemical storage locker. No new permits would be required to build or operate the reactor.

This project comprises research and development activities and all assembly of equipment would be completed in existing facilities. No new construction is required. CX B3.6 applies.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: _____ Date: 8/5/2011
NEPA Compliance Officer

**FIELD OFFICE MANAGER DETERMINATION**

☐ Field Office Manager review required

**NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:**

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: _____ Date: _____
Field Office Manager