## STATEMENT OF CONSIDERATIONS

Request by General Atomics Corporation for an Advance Waiver of Domestic and Foreign Invention Rights under subcontract No. 2047-001 between Burns and Roe Enterprises, Inc. And General Atomics under DOE Contract No. DE-AC22-94PC92100; W(A)-97-027, CH-0932

The Petitioner, General Atomics Corporation (GAT), was awarded this subcontract from an unsolicited proposal to perform work under DOE Contract DE-AC22-94PC92100 with Burns and Roe Enterprises. The Burns and Roe contract is for the Operation, Maintenance, and Program Implementation Support Services for the Federal Energy Technology Center at Pittsburgh. This particular subcontract is for the design, construction, and operation of a pilot plant to convert uranium hexafluoride (UF<sub>6</sub>) to a uranium oxide form (U<sub>3</sub>O<sub>8</sub> and UO<sub>2</sub>) and simultaneously produce an anhydrous hydrogen fluoride (AHF) byproduct. The pilot plant system will be designed and operated to provide data to enable development of a detailed design basis, cost, and deployment schedule for a full size production plant (28,000 metric tons of UF<sub>6</sub> per year). The subject matter of this project is covered under U.S. Patent 5,346,684, "Recovery of Anhydrous Hydrogen Fluoride from Depleted Uranium Hexafluoride", September 13, 1994. As brought out in response to question 5 of the attached waiver petition, this patent has been assigned to General Atomics from Sequoyah Fuels Corporation, the assignee at issue. According to the LEXIS® Database, this assignment was recorded December 2, 1994 at Reel and Frame 7237/0198. A copy of this assignment is attached and part of GAT's waiver petition..

The total estimated cost of the subcontract is about \$6,752,000. GAT is cost sharing 50% of this total estimated cost, or \$3,376,000, with DOE providing the remaining \$3,376,000. The subcontract term is from November 15, 1996 through May 15, 1998. Work under this program has been proceeding from November 15, 1996 under a letter contract. Further work will proceed under the subcontract on which this waiver is based.

In its response to questions 5 and 6 of the attached waiver petition, GAT has shown that it has established itself as a leader in the uranium conversion industry. Its affiliate, Sequoyah Fuels Corporation, was one of two domestic facilities that converted milled U<sub>3</sub>O<sub>8</sub> concentrates (yellowcake) to uranium hexafluoride (UF<sub>6</sub>) which is then sent on to the enrichment as the next step in the fabrication of fuels for nuclear reactors. Sequoyah then recognized the need to convert the depleted UF<sub>6</sub> (DUF<sub>6</sub>) tails from the enrichment step to a more stable oxide form and recognized the potential value of the fluorine contained in the tails. The patented technology that is the subject of this subcontract was then developed. GAT has teamed with Allied Signal to demonstrate this UF<sub>6</sub> conversion technology at Allied Signal's uranium conversion facility near Metropolis, Illinois. As brought out in response to question 9 of the waiver petition, if the demonstration project proves successful, GAT has plans for financing and construction a commercial plant that would be capable of converting approximately 80 million pounds of DUF<sub>6</sub> annually. It is noted that DOE would be a potential customer for this plant, having three diffusion plants with more than 500,000 metric tons of depleted UF<sub>6</sub> in outdoor storage. Thus, GAT has demonstrated its commitment to commercialization of the subject technology as well as potential significant DOE programmatic importance in the clean-up and neutralization of this waste.

From its response to question 10, GAT indicates that there would be no effect on competition and market concentration by grant of the waiver because of multiple technologies that have been submitted to DOE for the management of depleted uranium. Additionally, COGEMA, a French corporation, has a commercial operating process for the conversion of depleted uranium.

The Petitioner has agreed to the standard provisions with respect to invention waivers with the substitution of the march in rights, U.S. manufacturing preference and U.S. government license provided in 35 U.S.C. 202-204. Additionally, GAT has accepted standard background patent and data provisions of paragraphs (k), with modifications agreed to by field and HQ Patent Counsel (attached) to assure commercialization of the technology..

The subject subcontract will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which GAT agrees to substantial U.S. manufacture of the subject inventions. Additionally, GAT agrees not to transfer the subject inventions to any other entity unless that other entity agrees to these same requirements.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest their resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration. Therefore, in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver, as set forth above, be granted.

Mark P. Dvorscak
Assistant Chief Counsel
Office of Intellectual Property Law

Date\_ Nov 5 1997

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, it is determined that the United States and the general public will best be served by a waiver of rights and consent to assignment of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

Robert Lange

Robert Lange Sassociate Director, Office of **Facilities** Office of Nuclear Energy, Science

and Technology

APPROVAL:

Paul A. Gottlieb

Assistant General Counsel for Technology Transfer and **Intellectual Property** 

(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 (e)(2)(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 (m)(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>U. S. COMPETITIVENESS</u> 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)

## WAIVER ACTION - ABSTRACT

W(I)-97-027 (CH-0932)

REQUESTOR
General Atomics Corp.
DE-AC22-94PC92100

**CONTRACT SCOPE OF WORK** 

Design, construction, and operation of a pilot plant

**RATIONALE FOR DECISION** 

**DISPOSITION** 

50% Cost Share