

FORM PTO-1619A  
Expires 06/30/98  
OMB 0851-0027

U.S. Department of Commerce  
Patent and Trademark Office  
PATENT

S-100,681

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Name (line 1) U. S. Department of Energy

Name (line 2)

Address (line 1) 1000 Independence Avenue, S.W.

Address (line 2)

Address (line 3) Washington

City

D.C.

State/Country

20585-0162

Zip Code

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U.S. Department of Commerce  
Patent and Trademark Office  
PATENT

## Correspondent Name and Address

Area Code and Telephone Number

202-586-2810

Name Betty A. WinchesterAddress (line 1) MS 6F-067 (FORSTL), GC-62Address (line 2) United States Department of EnergyAddress (line 3) 1000 Independence Avenue, S. W.Address (line 4) Washington, D. C. 20585-0162

## Pages

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## Application Number(s) or Patent Number(s)

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Patent Application Number(s)

Patent Number(s)

6089444

If this document is being filed together with a new Patent Application, enter the date the patent application  
was

Month Day Year

## Patent Cooperation Treaty (PCT)

Enter PCT application number  
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Fee Amount for Properties Listed (37 CFR 3.41): \$

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Katherine Baldwin

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Signature

NOV - 5 2003

Date

**U.S. DEPARTMENT OF ENERGY  
PATENT ASSIGNMENT FORM**

Boeing hereby acknowledges that the invention claimed in U.S. Patent 6,089,444 is a subject invention under contract AC-3013 awarded to Boeing (then McDonnell Douglas Corporation) by Sandia National Laboratories in connection with the International Thermonuclear Experimental Reactor (ITER) Agreement signed July 21, 1992. Contract AC-3013 is subject to the ITER Agreement. Contract AC-3013 incorporates the Patent Rights clause that was contained at 41 CFR 9-9.107-5(a) at the time of the invention, a copy of which is attached hereto. As a subject invention, Boeing acknowledges that it is subject to the obligations attaching to a subject invention as set forth in the Patent Rights clause.

~~Boeing warrants that it has been assigned the entire right, title and interest in and to U.S. Patent 6,089,444 and that it has the authority to transfer its entire right, title and interest to the U.S. Department of Energy as provided for under 41 CFR 9-9.107-5(a)(1). Both parties agree that the U.S. Department of Energy has the sole right to determine inventorship.~~

Boeing hereby assigns its entire right, title and interest throughout the world in and to the subject invention and in and to U.S. Patent 6,089,444 to the U.S. Department of Energy, an executive agency of the Government of the United States of America.

Subject to the provisions of the ITER Agreement and Boeing's subcontract, Boeing hereby reserves a revocable, nonexclusive, paid-up license in U.S. Patent 6,089,444 and in any resulting patents in which the Government acquires title in any country. The license extends to Boeing's domestic subsidiaries and affiliates, if any, within the corporate structure of which Boeing is a part and shall include the right to grant sublicenses of the same scope to the extent Boeing was legally obligated to do so at the time the AC-3013 contract was awarded. The license shall be transferable only with the approval of the Department of Energy except when transferred to the successor of that part of Boeing's business to which the invention pertains.

Authorized on behalf of The Boeing Company:

By Patricia A. Ford  
Patricia A. Ford 6-11-03  
Assistant Secretary

Accepted for the Benefit of the Government of the United States:

UNITED STATES DEPARTMENT OF ENERGY

By Paul A. Gottlieb  
Paul A. Gottlieb  
Assistant General Counsel for Technology  
Transfer and Intellectual Property

ATTEST:

Kathleen Balaban

RECORDED: 11/05/2003

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