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**Return of Private Foundation  
or Section 4947(a)(1) Nonexempt Charitable Trust  
Treated as a Private Foundation**

Department of the Treasury  
Internal Revenue Service

**Note.** The foundation may be able to use a copy of this return to satisfy state reporting requirements.

**2010**

For calendar year 2010, or tax year beginning , 2010, and ending , 20

G Check all that apply:  Initial return  Initial return of a former public charity  Final return  
 Amended return  Address change  Name change

Name of foundation: **FUSION POWER ASSOCIATES** **A Employer identification number** 52-1162794

Number and street (or P.O. box number if mail is not delivered to street address): **2 PROFESSIONAL DRIVE** Room/suite: **B Telephone number (see instructions)** (301) 258-0545

City or town, state, and ZIP code: **Gaithersburg MD 20879**

**H** Check type of organization:  Section 501(c)(3) exempt private foundation  
 Section 4947(a)(1) nonexempt charitable trust  Other taxable private foundation

**I** Fair market value of all assets at end of year (from Part II, col. (c), line 16) **\$ 453,217** **J** Accounting method:  Cash  Accrual  
 Other (specify) \_\_\_\_\_ (Part I, column (d) must be on cash basis.)

**C** If exempt application is pending, check here   
**D** 1. Foreign organizations, check here   
2. Foreign organizations meeting the 85% test, check here and attach computation   
**E** If private foundation status was terminated under section 507(b)(1)(A), check here   
**F** If the foundation is in a 60-month termination under section 507(b)(1)(B), check here

<b>Part I Analysis of Revenue and Expenses</b> (The total of amounts in columns (b), (c), & (d) may not necessarily equal the amounts in column (a) (see instructions).)		(a) Revenue and expenses per books	(b) Net investment income	(c) Adjusted net income	(d) Disbursements for charitable purposes (cash basis only)
<b>R E V E N U E</b>	<b>1</b> Contributions, gifts, grants, etc., received (attach schedule) <b>17,043</b>				
	<b>2</b> Check <input type="checkbox"/> if the foundation is <b>not</b> required to attach Sch. B				
	<b>3</b> Interest on savings and temp. cash investments <b>159</b>		<b>159</b>	<b>159</b>	
	<b>4</b> Dividends and interest from securities <b>1,110</b>		<b>2,915</b>	<b>2,915</b>	
	<b>5 a</b> Gross rents				
	<b>b</b> Net rental income or (loss)				
	<b>6 a</b> Net gain/(loss) from sale of assets not on line 10				
	<b>b</b> Gross sales price for all assets on line 6a				
	<b>7</b> Capital gain net income (from Part IV, line 2)		<b>0</b>		
	<b>8</b> Net short-term capital gain			<b>0</b>	
	<b>9</b> Income modifications			<b>0</b>	
	<b>10 a</b> Gross sales less rtns. & allowances <b>0</b>				
<b>b</b> Less Cost of goods sold					
<b>c</b> Gross profit or (loss) (attach schedule)					
<b>11</b> Other income (attach schedule) <b>#1</b> <b>98,640</b>					
<b>12 Total.</b> Add lines 1 through 11 <b>116,952</b>		<b>3,074</b>	<b>3,074</b>		
<b>O P E R A T I N G &amp; A D M I N I S T R A T I V E E X P E N S E S</b>	<b>13</b> Compensation of officers, directors, trustees, etc. <b>53,340</b>		<b>2,667</b>		<b>50,673</b>
	<b>14</b> Other employee salaries and wages			<b>182</b>	
	<b>15</b> Pension plans, employee benefits				
	<b>16 a</b> Legal fees (attach schedule)				
	<b>b</b> Accounting fees (attach schedule) <b>#2</b> <b>900</b>		<b>90</b>		<b>810</b>
	<b>c</b> Other professional fees (attach schedule) <b>#3</b> <b>144</b>		<b>144</b>		
	<b>17</b> Interest				
	<b>18</b> Taxes (attach schedule) (see instruction <b>#4</b> ) <b>5,455</b>		<b>307</b>		<b>5,148</b>
	<b>19</b> Depreciation (attach sch.) and depletion <b>2,581</b>				
	<b>20</b> Occupancy <b>7,100</b>		<b>710</b>		<b>6,390</b>
	<b>21</b> Travel, conferences, and meetings <b>21,802</b>				<b>21,802</b>
	<b>22</b> Printing and publications <b>4,546</b>				<b>4,546</b>
	<b>23</b> Other expenses (attach schedule) <b>#5</b> <b>21,126</b>		<b>266</b>		<b>20,860</b>
	<b>24 Total operating and administrative expenses.</b> Add lines 13 through 23 <b>116,994</b>		<b>4,184</b>	<b>0</b>	<b>110,229</b>
<b>25</b> Contributions, gifts, grants paid					
<b>26 Total exp &amp; disbursements.</b> Add lines 24 and 25 <b>116,994</b>		<b>4,184</b>	<b>0</b>	<b>110,229</b>	
<b>27 Subtract line 26 from line 12:</b>					
<b>a Excess of revenue over expenses and disbursements</b> <b>-42</b>					
<b>b Net investment income</b> (if neg., enter -0-) <b>0</b>		<b>0</b>			
<b>c Adjusted net income</b> (if neg., enter -0-) <b>3,074</b>			<b>3,074</b>		

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Part II Balance Sheets		Attached schedules and amounts in the description column should be for end-of-year amounts only. (See inst.)		Beginning of year	End of year	
		(a) Book Value	(b) Book Value	(c) Fair Market Value		
ASSETS	1	Cash -- non-interest-bearing .....		34,471	45,303	45,303
	2	Savings and temporary cash investments .....		97,910	95,984	95,984
	3	Accounts receivable ▶ 9,930				
		Less: allowance for doubtful accts. ▶		11,000	9,930	9,930
	4	Pledges receivable ▶				
		Less: allowance for doubtful accts. ▶				
	5	Grants receivable .....				
	6	Receivables due from officers, directors, trustees, and other disqualified persons (attach schedule) (see the instructions) ..				
	7	Other notes and loans receivable (attach schedule) ▶				
		Less allowance for doubtful accounts ▶				
	8	Inventories for sale or use .....				
	9	Prepaid expenses and deferred charges .....				
	10a	Investments -- U.S. and state govt. obligations (attach schedule)				
	b	Investments -- corporate stock (attach schedule) .....				
	c	Investments -- corporate bonds (attach schedule) .....				
	11	Investments -- land, buildings, and equipment basis .....				
	Less accumulated depreciation (attach schedule) ▶					
12	Investments -- mortgage loans .....					
13	Investments -- other (attach schedule) .....					
14	Land, buildings, and equipment basis ▶ 170,374	#6	70,995	68,413	302,000	
	Less accumulated depreciation (attach schedule) ▶					
15	Other assets (describe ▶)					
16	<b>Total assets</b> (to be completed by all filers -- see the instructions. Also, see page 1, item I) .....		214,376	219,630	453,217	
LIABILITIES	17	Accounts payable and accrued expenses .....		2,043	1,947	
	18	Grants payable .....				
	19	Deferred revenue .....		77,557	81,145	
	20	Loans from officers, directors, trustees, and other disqualified persons ..				
	21	Mortgages and other notes payable (attach schedule) .....				
	22	Other liabilities (describe ▶)				
	23	<b>Total liabilities</b> (add lines 17 through 22) .....		79,600	83,092	
NET ASSETS OR FUND BALANCES	Foundations that follow SFAS 117, check here ▶ <input checked="" type="checkbox"/> and complete lines 24 through 26 and lines 30 and 31.					
	24	Unrestricted .....		134,776	136,538	
	25	Temporarily restricted .....				
	26	Permanently restricted .....				
	Foundations that do not follow SFAS 117, ck. here ▶ <input checked="" type="checkbox"/> and complete lines 27 through 31.					
	27	Capital stock, trust principal, or current funds .....				
	28	Paid-in or capital surplus, or land, bldg., and equipment fund				
	29	Retained earnings, accumulated income, endowment, or other funds .....		134,776	136,538	
	30	<b>Total net assets or fund balances</b> (see the instructions) .....		134,776	136,538	
31	<b>Total liabilities and net assets/fund balances</b> (see the inst.)		214,376	219,630		

Part III Analysis of Changes in Net Assets or Fund Balances			
1	Total net assets or fund balances at beginning of year -- Part II, column (a), line 30 (must agree with end-of-year figure reported on prior year's return) .....	1	134,776
2	Enter amount from Part I, line 27a .....	2	-42
3	Other increases not included in line 2 (itemize) ▶ See attachment #7	3	1,804
4	Add lines 1, 2, and 3 .....	4	136,538
5	Decreases not included in line 2 (itemize) ▶	5	
6	<b>Total net assets or fund balances at end of year</b> (line 4 minus line 5) -- Part II, column (b), line 30. ....	6	136,538

**Part IV Capital Gains and Losses for Tax on Investment Income**

(a) List and describe the kind(s) of property sold (e.g., real estate, 2-story brick warehouse; or common stock, 200 shs. MLC Co)		(b) How acquired P -- Purchase D -- Donation	(c) Date acquired (mo., day, yr.)	(d) Date sold (mo., day, yr.)
1a				
b				
c				
d				
e				
(e) Gross sales price	(f) Depreciation allowed (or allowable)	(g) Cost or other basis plus expense of sale	(h) Gain or (loss) (e) plus (f) minus (g)	
a				
b				
c				
d				
e				
Complete only for assets showing gain in column (h) and owned by the foundation on 12/31/69				(i) Gains (Col. (h) gain minus col. (k), but not less than -0-) or Losses (from col. (h))
(l) F.M.V. as of 12/31/69	(j) Adjusted basis as of 12/31/69	(k) Excess of col. (l) over col. (j), if any		
a				
b				
c				
d				
e				
2 Capital gain net income or (net capital loss) . . . . .	{ If gain, also enter in Part I, line 7 If (loss), enter -0- in Part I, line 7 } . . . . .			2 0
3 Net short-term capital gain or (loss) as defined in sections 1222(5) and (6): If gain, also enter in Part I, line 8, column (c) (see the instructions) . . . . . If (loss), enter -0- in Part I, line 8 . . . . .	} . . . . .			3 0

**Part V Qualification Under Section 4940(e) for Reduced Tax on Net Investment Income**

(For optional use by domestic private foundations subject to the section 4940(a) tax on net investment income.)

If section 4940(d)(2) applies, leave this part blank

Was the foundation liable for the section 4942 tax on the distributable amount of any year in the base period? . . . . .  Yes  No  
 If "Yes," the foundation does not qualify under section 4940(e). Do not complete this part.

1 Enter the appropriate amount in each column for each year, see the instructions before making any entries.

(a) Base period years Calendar year (or tax year beg. in)	(b) Adjusted qualifying distributions	(c) Net value of noncharitable-use assets	(d) Distribution ratio (col. (b) divided by col. (c))
2009			
2008			
2007			
2006			
2005			
2 Total of line 1, column (d) . . . . .			2 0.000000
3 Average distribution ratio for the 5-year base period -- divide the total on line 2 by 5, or by the number of years the foundation has been in existence if less than 5 years . . . . .			3 0.000000
4 Enter the net value of noncharitable-use assets for 2010 from Part X, line 5 . . . . .			4 442,033
5 Multiply line 4 by line 3 . . . . .			5
6 Enter 1% of net investment income (1% of Part I, line 27b) . . . . .			6
7 Add lines 5 and 6 . . . . .			7
8 Enter qualifying distributions from Part XII, line 4 . . . . .			8 110,229

If line 8 is equal to or greater than line 7, check the box in Part VI, line 1b, and complete that part using a 1% tax rate. See the Part VI instructions.

Part VI Excise Tax Based on Investment Income (Section 4940(a), 4940(b), 4940(e), or 4948 -- see the instructions)

Table with 11 rows for excise tax calculations. Includes sub-sections 1a-11 and a sub-table for credits/payments (6a-6d). Values include 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11.

Part VII-A Statements Regarding Activities

Table with 10 rows for activity statements. Columns include question text, Yes, and No. Includes questions 1a-10 regarding political activities, IRS reporting, and foundation status.

**Part VII-A Statements Regarding Activities** (continued)

11	At any time during the year, did the foundation, directly or indirectly, own a controlled entity within the meaning of section 512(b)(13)? If "Yes," attach schedule (see instructions) . . . . .	11		X
12	Did the foundation acquire a direct or indirect interest in any applicable insurance contract before August 17, 2008? . . . . .	12		X
13	Did the foundation comply with the public inspection requirements for its annual returns and exemption application? . . . . . Website address ► <u>HTTP://FUSIONPOWER.ORG</u>	13	X	
14	The books are in care of ► <u>See attachment #8</u> Telephone no. ► _____ Located at ► _____ ZIP+4 ► _____			
15	Section 4947(a)(1) nonexempt charitable trusts filing Form 990-PF in lieu of Form 1041 -- Check here . . . . . ► <input type="checkbox"/> and enter the amount of tax-exempt interest received or accrued during the year . . . . . ► 15 _____			
16	At any time during calendar year 2010, did the foundation have an interest in or a signature or other authority over a bank, securities, or other financial account in a foreign country? . . . . . See the instructions for exceptions and filing requirements for Form TD F 90-22.1. If "Yes," enter the name of the foreign country ► _____	16	Yes	No X

**Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required**

File Form 4720 if any item is checked in the "Yes" column, unless an exception applies.

		Yes	No
1a	During the year did the foundation (either directly or indirectly):		
(1)	Engage in the sale or exchange, or leasing of property with a disqualified person? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
(2)	Borrow money from, lend money to, or otherwise extend credit to (or accept it from) a disqualified person? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
(3)	Furnish goods, services, or facilities to (or accept them from) a disqualified person? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
(4)	Pay compensation to, or pay or reimburse the expenses of, a disqualified person? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
(5)	Transfer any income or assets to a disqualified person (or make any of either available for the benefit or use of a disqualified person)? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
(6)	Agree to pay money or property to a government official? (Exception. Check "No" if the foundation agreed to make a grant to or to employ the official for a period after termination of government service, if terminating within 90 days.) . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
b	If any answer is "Yes" to 1a(1)-(6), did any of the acts fail to qualify under the exceptions described in Regulations section 53.4941(d)-3 or in a current notice regarding disaster assistance (see instructions)? . . . . . Organizations relying on a current notice regarding disaster assistance check here . . . . . ► <input type="checkbox"/>	1b	X
c	Did the foundation engage in a prior year in any of the acts described in 1a, other than excepted acts, that were not corrected before the first day of the tax year beginning in 2010? . . . . .	1c	X
2	Taxes on failure to distribute income (section 4942) (does not apply for years the foundation was a private operating foundation defined in section 4942(j)(3) or 4942(j)(5)):		
a	At the end of tax year 2010, did the foundation have any undistributed income (lines 6d and 6e, Part XIII) for tax year(s) beginning before 2010? . . . . . <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes," list the years . . . ► <u>20 09, 20 08, 20 07, 20 06</u>		
b	Are there any years listed in 2a for which the foundation is <b>not</b> applying the provisions of section 4942(a)(2) (relating to incorrect valuation of assets) to the year's undistributed income? (If applying section 4942(a)(2) to <b>all</b> years listed, answer "No" and attach statement -- see instructions) . . . . .	2b	X
c	If the provisions of section 4942(a)(2) are being applied to <b>any</b> of the years listed in 2a, list the years here. ► 20 __, 20 __, 20 __, 20 __		
3a	Did the foundation hold more than a 2% direct or indirect interest in any business enterprise at any time during the year? . . . . . <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
b	If "Yes," did it have excess business holdings in 2010 as a result of (1) any purchase by the foundation or disqualified persons after May 26, 1969; (2) the lapse of the 5-year period (or longer period approved by the Commissioner under section 4943(c)(7)) to dispose of holdings acquired by gift or bequest; or (3) the lapse of the 10-, 15-, or 20-year first phase holding period? (Use Schedule C, Form 4720, to determine if the foundation had excess business holdings in 2010.) . . . . .	3b	X
4a	Did the foundation invest during the year any amount in a manner that would jeopardize its charitable purposes? . . . . .	4a	X
b	Did the foundation make any investment in a prior year (but after December 31, 1969) that could jeopardize its charitable purpose that had not been removed from jeopardy before the first day of the tax year beginning in 2010? . . . . .	4b	X

**Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required** (continued)

**5a** During the year did the foundation pay or incur any amount to:

(1) Carry on propaganda, or otherwise attempt to influence legislation (section 4945(e))?  Yes  No

(2) Influence the outcome of any specific public election (see section 4955); or to carry on, directly or indirectly, any voter registration drive?  Yes  No

(3) Provide a grant to an individual for travel, study, or other similar purposes?  Yes  No

(4) Provide a grant to an organization other than a charitable, etc., organization described in section 509(a)(1), (2), or (3), or section 4940(d)(2)? (see instructions).  Yes  No

(5) Provide for any purpose other than religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals?  Yes  No

**b** If any answer is "Yes" to 5a(1)-(5), did any of the transactions fail to qualify under the exceptions described in Regulations section 53.4945 or in a current notice regarding disaster assistance (see instructions)?  Yes  No  
 Organizations relying on a current notice regarding disaster assistance check here

**c** If the answer is "Yes" to question 5a(4), does the foundation claim exemption from the tax because it maintained expenditure responsibility for the grant?  Yes  No  
 If "Yes," attach the statement required by Regulations section 53.4945-5(d). *N/A*

**6a** Did the foundation, during the year, receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?  Yes  No

**b** Did the foundation, during the year, pay premiums, directly or indirectly, on a personal benefit contract?  Yes  No  
 If "Yes" to 6b, file Form 8870.

**7a** At any time during the tax year, was the foundation a party to a prohibited tax shelter transaction?  Yes  No

**b** If "Yes," did the foundation receive any proceeds or have any net income attributable to the transaction?  Yes  No

	<b>5b</b>	X
	<b>6b</b>	X
	<b>7b</b>	X

**Part VIII Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors**

**1 List all officers, directors, trustees, foundation managers and their compensation (see instructions).**

(a) Name and address	(b) Title, and avg. hours per week devoted to position	(c) Compensation (If not paid, enter -0-)	(d) Contributions to employee benefit plans and deferred comp.	(e) Expense account, other allowances
See attachment #9 See attachment #10				

**2 Compensation of five highest-paid employees (other than those included on line 1 -- see instructions). If none, enter "NONE."**

(a) Name and address of each employee paid more than \$50,000	(b) Title, and avg. hours per week devoted to position	(c) Compensation	(d) Contributions to employee benefit plans and deferred compensation	(e) Expense account, other allowances
NONE				

**Total number of other employees paid over \$50,000** ▶ 0

**Part VIII Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors** (continued)

**3 Five highest-paid independent contractors for professional services (see the instructions). If none, enter "NONE."**

(a) Name and address of each person paid more than \$50,000	(b) Type of service	(c) Compensation
NONE		

Total number of others receiving over \$50,000 for professional services . . . . . ▶

**Part IX-A Summary of Direct Charitable Activities**

List the foundation's four largest direct charitable activities during the tax year. Include relevant statistical information such as the number of organizations and other beneficiaries served, conferences convened, research papers produced, etc.	Expenses
1 See attachment #11	
2 See attachment #12	21,803
3 See attachment #13	15,556
4	8,167

**Part IX-B Summary of Program-Related Investments** (see the instructions)

Describe the two largest program-related investments made by the foundation during the tax year on lines 1 and 2.	Amount
1	
2	
All other program-related investments See the instructions.	
3	
<b>Total.</b> Add lines 1 through 3 . . . . . ▶	

**Part X Minimum Investment Return** (All domestic foundations must complete this part. Foreign foundations, see the instructions.)

<b>1</b>	Fair market value of assets not used (or held for use) directly in carrying out charitable, etc., purposes:		
<b>a</b>	Average monthly fair market value of securities	<b>1a</b>	96,947
<b>b</b>	Average of monthly cash balances	<b>1b</b>	39,887
<b>c</b>	Fair market value of all other assets (see the instructions)	<b>1c</b>	311,930
<b>d</b>	<b>Total</b> (add lines 1a, b, and c)	<b>1d</b>	448,764
<b>e</b>	Reduction claimed for blockage or other factors reported on lines 1a and 1c (attach detailed explanation)	<b>1e</b>	
<b>2</b>	Acquisition indebtedness applicable to line 1 assets	<b>2</b>	
<b>3</b>	Subtract line 2 from line 1d	<b>3</b>	448,764
<b>4</b>	Cash deemed held for charitable activities. Enter 1 1/2 % of line 3 (for greater amount, see the instructions)	<b>4</b>	6,731
<b>5</b>	<b>Net value of noncharitable-use assets.</b> Subtract line 4 from line 3. Enter here and on Part V, line 4	<b>5</b>	442,033
<b>6</b>	<b>Minimum investment return.</b> Enter 5% of line 5	<b>6</b>	22,102

**Part XI Distributable Amount** (see the instructions) (Section 4942(j)(3) and (j)(5) private operating foundations and certain foreign organizations check here  and do not complete this part )

<b>1</b>	Minimum investment return from Part X, line 6	<b>1</b>	22,102
<b>2a</b>	Tax on investment income for 2010 from Part VI, line 5	<b>2a</b>	
<b>b</b>	Income tax for 2010. (This does not include the tax from Part VI.)	<b>2b</b>	
<b>c</b>	Add lines 2a and 2b	<b>2c</b>	
<b>3</b>	Distributable amount before adjustments. Subtract line 2c from line 1	<b>3</b>	22,102
<b>4</b>	Recoveries of amounts treated as qualifying distributions	<b>4</b>	
<b>5</b>	Add lines 3 and 4	<b>5</b>	22,102
<b>6</b>	Deduction from distributable amount (see the instructions)	<b>6</b>	
<b>7</b>	<b>Distributable amount</b> as adjusted. Subtract line 6 from line 5. Enter here and on Part XIII, line 1	<b>7</b>	22,102

**Part XII Qualifying Distributions** (see the instructions)

<b>1</b>	Amounts paid (including administrative expenses) to accomplish charitable, etc., purposes:		
<b>a</b>	Expenses, contributions, gifts, etc. -- total from Part I, column (d), line 26	<b>1a</b>	110,229
<b>b</b>	Program-related investments -- total from Part IX-B	<b>1b</b>	
<b>2</b>	Amounts paid to acquire assets used (or held for use) directly in carrying out charitable, etc., purposes	<b>2</b>	
<b>3</b>	Amounts set aside for specific charitable projects that satisfy the:		
<b>a</b>	Suitability test (prior IRS approval required)	<b>3a</b>	
<b>b</b>	Cash distribution test (attach the required schedule)	<b>3b</b>	
<b>4</b>	<b>Qualifying distributions.</b> Add lines 1a through 3b. Enter here and on Part V, line 8, and Part XIII, line 4	<b>4</b>	110,229
<b>5</b>	Foundations that qualify under section 4940(e) for the reduced rate of tax on net investment income. Enter 1% of Part I, line 27b (see the instructions)	<b>5</b>	0
<b>6</b>	<b>Adjusted qualifying distributions.</b> Subtract line 5 from line 4	<b>6</b>	110,229

**Note.** The amount on line 6 will be used in Part V, column (b), in subsequent years when calculating whether the foundation qualifies for the section 4940(e) reduction of tax in those years

**Part XIII Undistributed Income** (see the instructions)

	(a) Corpus	(b) Years prior to 2009	(c) 2009	(d) 2010
<b>1</b> Distributable amount for 2010 from Part XI, line 7 . . . . .				22,102
<b>2</b> Undistributed income, if any, as of the end of 2010				
<b>a</b> Enter amount for 2009 only . . . . .			23,923	
<b>b</b> Total for prior years 20 <u>08</u> , 20 <u>07</u> , 20 <u>06</u> . . . . .		88,064		
<b>3</b> Excess distributions carryover, if any, to 2010				
<b>a</b> From 2005 . . . . .				
<b>b</b> From 2006 . . . . .				
<b>c</b> From 2007 . . . . .				
<b>d</b> From 2008 . . . . .				
<b>e</b> From 2009 . . . . .				
<b>f</b> Total of lines 3a through e . . . . .	0			
<b>4</b> Qualifying distributions for 2010 from Part XII, line 4 ▶ \$ <u>110,229</u>				
<b>a</b> Applied to 2009, but not more than line 2a . . . . .				
<b>b</b> Applied to undistributed income of prior years (Election required -- see the instructions) . . . . .				
<b>c</b> Treated as distributions out of corpus (Election required -- see the instructions) . . . . .				
<b>d</b> Applied to 2010 distributable amount . . . . .				
<b>e</b> Remaining amount distributed out of corpus . . . . .				
<b>5</b> Excess distributions carryover applied to 2010 . . . . . (If an amount appears in column (d), the same amount must be shown in column (a).)				
<b>6</b> Enter the net total of each column as indicated below:				
<b>a</b> Corpus. Add lines 3f, 4c, and 4e. Subtract line 5 . . . . .				
<b>b</b> Prior years' undistributed income. Subtract line 4b from line 2b . . . . .		88,064		
<b>c</b> Enter the amount of prior years' undistributed income for which a notice of deficiency has been issued, or on which the section 4942(a) tax has been previously assessed . . . . .				
<b>d</b> Subtract line 6c from line 6b. Taxable amount -- see the instructions . . . . .		88,064		
<b>e</b> Undistributed income for 2009. Subtract line 4a from line 2a. Taxable amount -- see the instructions . . . . .			23,923	
<b>f</b> Undistributed income for 2010. Subtract lines 4d and 5 from line 1. This amount must be distributed in 2011 . . . . .				22,102
<b>7</b> Amounts treated as distributions out of corpus to satisfy requirements imposed by section 170(b)(1)(F) or 4942(g)(3) (see the instructions) . . . . .				
<b>8</b> Excess distributions carryover from 2005 not applied on line 5 or line 7 (see the instructions) . . . . .				
<b>9</b> Excess distributions carryover to 2011. Subtract lines 7 and 8 from line 6a . . . . .				
<b>10</b> Analysis of line 9:				
<b>a</b> Excess from 2006 . . . . .				
<b>b</b> Excess from 2007 . . . . .				
<b>c</b> Excess from 2008 . . . . .				
<b>d</b> Excess from 2009 . . . . .				
<b>e</b> Excess from 2010 . . . . .				

**Part XIV Private Operating Foundations** (see instructions and Part VII-A, question 9)

**1a** If the foundation has received a ruling or determination letter that it is a private operating foundation, and the ruling is effective for 2010, enter the date of the ruling. . . . .

**b** Check box to indicate whether the foundation is a private operating foundation described in section  4942(j)(3) or  4942(j)(5)

	Tax year				(e) Total
	(a) 2010	(b) 2009	(c) 2008	(d) 2007	
<b>2a</b> Enter the lesser of the adjusted net income from Part I or the minimum investment return from Part X for each year listed . . . . .	3,074	1,875	3,704	4,198	12,851
<b>b</b> 85% of line 2a . . . . .	2,613	1,594	3,148	3,568	10,923
<b>c</b> Qualifying distributions from Part XII, line 4 for each year listed . . . . .	110,229	135,038	135,471	123,366	504,104
<b>d</b> Amounts included in line 2c not used directly for active conduct exempt act. . . . .					0
<b>e</b> Qualifying distributions made directly for active conduct of exempt activities. Subtract line 2d from line 2c. . . . .	110,229	135,038	135,471	123,366	504,104
<b>3</b> Complete 3a, b, or c for the alternative test relied upon:					
<b>a</b> "Assets" alternative test -- enter:					
<b>(1)</b> Value of all assets . . . . .	453,217	444,381	379,885	392,539	1,670,022
<b>(2)</b> Value of assets qualifying under section 4942(j)(3)(B)(i) . . . . .	453,217	444,381	379,885	392,539	1,670,022
<b>b</b> "Endowment" alternative test -- enter 2/3 of min. investment return shown in Part X, line 6 for each year listed. . . . .	22,110	23,927	19,179	19,470	84,686
<b>c</b> "Support" alternative test -- enter:					
<b>(1)</b> Total support other than gross investment income (interest, dividends, rents, payments on securities loans (section 512(a)(5)), or royalties) . . . . .					0
<b>(2)</b> Support from general public and 5 or more exempt organizations as provided in section 4942(j)(3)(B)(iii) . . . . .					0
<b>(3)</b> Largest amount of support from an exempt organization. . . . .					0
<b>(4)</b> Gross investment income . . . . .					0

**Part XV Supplementary Information (Complete this part only if the foundation had \$5,000 or more in assets at any time during the year -- see the instructions.)**

**1 Information Regarding Foundation Managers:**  
**a** List any managers of the foundation who have contributed more than 2% of the total contributions received by the foundation before the close of any tax year (but only if they have contributed more than \$5,000). (See section 507(d)(2) )  
 None

**b** List any managers of the foundation who own 10% or more of the stock of a corporation (or an equally large portion of the ownership of a partnership or other entity) of which the foundation has a 10% or greater interest.  
 None

**2 Information Regarding Contribution, Grant, Gift, Loan, Scholarship, etc., Programs:**  
 Check here  if the foundation only makes contributions to preselected charitable organizations and does not accept unsolicited requests for funds. If the foundation makes gifts, grants, etc. (see the instructions) to individuals or organizations under other conditions, complete items 2a, b, c, and d

**a** The name, address, and telephone number of the person to whom applications should be addressed:

**b** The form in which applications should be submitted and information and materials they should include:

**c** Any submission deadlines

**d** Any restrictions or limitations on awards, such as by geographical areas, charitable fields, kinds of institutions, or other factors:

**Part XV** Supplementary Information (continued)

**3 Grants and Contributions Paid During the Year or Approved for Future Payment**

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a Paid during the year				
<b>Total</b> .....				▶ 3a 0
b Approved for future payment				
<b>Total</b> .....				▶ 3b

**Part XVI-A Analysis of Income-Producing Activities**

Enter gross amounts unless otherwise indicated

	Unrelated business income		Excluded by section 512, 513, or 514		(e) Related or exempt function income (See the instructions.)
	(a) Business code	(b) Amount	(c) Excl. code	(d) Amount	
<b>1</b> Program service revenue:					
<b>a</b> See attachment #14					49,475
<b>b</b> _____					
<b>c</b> _____					
<b>d</b> _____					
<b>e</b> _____					
<b>f</b> _____					
<b>g</b> Fees & contracts from government agencies					
<b>2</b> Membership dues and assessments . . . . .					49,165
<b>3</b> Interest on savings and temporary cash investments . .					159
<b>4</b> Dividends and interest from securities . . . . .					1,110
<b>5</b> Net rental income or (loss) from real estate:					
<b>a</b> Debt-financed property . . . . .					
<b>b</b> Not debt-financed property . . . . .					
<b>6</b> Net rental income or (loss) from personal property . . .					
<b>7</b> Other investment income . . . . .					
<b>8</b> Gain or (loss) from sales of assets other than inventory					
<b>9</b> Net income or (loss) from special events . . . . .					
<b>10</b> Gross profit or (loss) from sales of inventory . .					
<b>11</b> Other revenue <b>a</b> _____					
<b>b</b> _____					
<b>c</b> _____					
<b>d</b> _____					
<b>e</b> _____					
<b>12</b> Subtotal. Add columns (b), (d), and (e) . . . . .		0		0	99,909
<b>13 Total.</b> Add line 12, columns (b), (d), and (e) . . . . . <b>13</b>					99,909

(See worksheet in line 13 instructions to verify calculations.)

**Part XVI-B Relationship of Activities to the Accomplishment of Exempt Purposes**

Line No. ▼	Explain below how each activity for which income is reported in column (e) of Part XVI-A contributed importantly to the accomplishment of the foundation's exempt purposes (other than by providing funds for such purposes). (See the instructions.)
	See attachment #15

**Part XVII Information Regarding Transfers To and Transactions and Relationships With Noncharitable Exempt Organizations**

		Yes	No
<b>1</b>	Did the organization directly or indirectly engage in any of the following with any other organization described in section 501(c) of the Code (other than section 501(c)(3) organizations) or in section 527, relating to political organizations?		
<b>a</b>	Transfers from the reporting foundation to a noncharitable exempt organization of:		
	(1) Cash		X
	(2) Other assets		X
<b>b</b>	Other transactions:		
	(1) Sales of assets to a noncharitable exempt organization		X
	(2) Purchases of assets from a noncharitable exempt organization		X
	(3) Rental of facilities, equipment, or other assets		X
	(4) Reimbursement arrangements		X
	(5) Loans or loan guarantees		X
	(6) Performance of services or membership or fundraising solicitations		X
<b>c</b>	Sharing of facilities, equipment, mailing lists, other assets, or paid employees		X
<b>d</b>	If the answer to any of the above is "Yes," complete the following schedule. Column (b) should always show the fair market value of the goods, other assets, or services given by the reporting foundation. If the foundation received less than fair market value in any transaction or sharing arrangement, show in column (d) the value of the goods, other assets, or services received.		

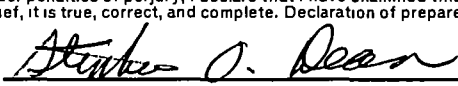
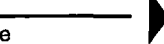
(a) Line no.	(b) Amount involved	(c) Name of noncharitable exempt organization	(d) Description of transfers, transactions, and sharing arrangements

**2 a** Is the foundation directly or indirectly affiliated with, or related to, one or more tax-exempt organizations described in section 501(c) of the Code (other than section 501(c)(3)) or in section 527?  Yes  No

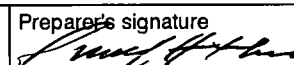
**b** If "Yes," complete the following schedule

(a) Name of organization	(b) Type of organization	(c) Description of relationship

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than taxpayer or fiduciary) is based on all information of which preparer has any knowledge.

**Sign Here**  Signature of officer or trustee Date  Title **PRESIDENT**

**Paid Preparer Use Only**

Print/Type preparer's name <b>RONALD H THOMAS</b>	Preparer's signature 	Date <b>03-17-11</b>	Check <input checked="" type="checkbox"/> if self-employed	PTIN <b>P00128697</b>
Firm's name ▶ <b>RONALD H THOMAS</b>		Firm's EIN ▶ <b>52-0880202</b>		
Firm's address ▶ <b>11301 SPUR WHEEL LANE</b>		Phone no. <b>(301) 983-0330</b>		

**Schedule B**(Form 990, 990-EZ,  
or 990-PF)Department of the Treasury  
Internal Revenue Service**Schedule of Contributors**

▶ Attach to Form 990, 990-EZ, or 990-PF.

OMB No. 1545-0047

**2010****Name of the organization**

FUSION POWER ASSOCIATES

**Employer identification number**

52-1162794

**Organization type** (check one):**Form 990 or 990-EZ****Section:** 501(c)( ) (enter number) organization 4947(a)(1) nonexempt charitable trust **not** treated as a private foundation 527 political organization**Form 990-PF** 501(c)(3) exempt private foundation 4947(a)(1) nonexempt charitable trust treated as a private foundation 501(c)(3) taxable private foundationCheck if your organization is covered by the **General Rule** or a **Special Rule**.**Note.** Only a section 501(c)(7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule. See instructions.**General Rule** For an organization filing Form 990, 990-EZ, or 990-PF that received, during the year, \$5,000 or more (in money or property) from any one contributor. Complete Parts I and II.**Special Rules** For a section 501(c)(3) organization filing Form 990 or 990-EZ that met the 33 1/3% support test of the regulations under sections 509(a)(1) and 170(b)(1)(A)(vi), and received from any one contributor, during the year, a contribution of the greater of (1) \$5,000 or (2) 2% of the amount on (i) Form 990, Part VIII, line 1h or (ii) Form 990-EZ, line 1. Complete Parts I and II. For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, aggregate contributions of more than \$1,000 for use exclusively for religious, charitable, scientific, literary, or educational purposes, or the prevention of cruelty to children or animals. Complete Parts I, II, and III. For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, contributions for use exclusively for religious, charitable, etc., purposes, but these contributions did not aggregate to more than \$1,000. If this box is checked, enter here the total contributions that were received during the year for an exclusively religious, charitable, etc., purpose. Do not complete any of the parts unless the **General Rule** applies to this organization because it received nonexclusively religious, charitable, etc., contributions of \$5,000 or more during the year . . . . . ▶ \$ \_\_\_\_\_**Caution.** An organization that is not covered by the General Rule and/or the Special Rules does not file Schedule B (Form 990, 990-EZ, or 990-PF), but it **must** answer "No" on Part IV, line 2 of its Form 990, or check the box on line H of its Form 990-EZ, or on line 2 of its Form 990-PF, to certify that it does not meet the filing requirements of Schedule B (Form 990, 990-EZ, or 990-PF).**For Paperwork Reduction Act Notice, see the Instructions for Form 990, 990-EZ, or 990-PF.****Schedule B (Form 990, 990-EZ, or 990-PF) (2010)**

Name of organization: FUSION POWER ASSOCIATES  
 Employer identification number: 52-1162794

**Part I Contributors** (see instructions)

(a) No.	(b) Name, address, and ZIP + 4	(c) Aggregate contributions	(d) Type of contribution
1	IEEE 445 HOES LANE Piscataway, NJ 08855	\$ 5,000	Person <input checked="" type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)
2	AMERICAN PHYSICAL SOCIETY ONE PHYSICAL ELLIPSE College Park, MD 20740	\$ 5,000	Person <input checked="" type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)
3	LAWRENCE BERKELEY NATIONAL LABORAT ONE CYCLOTRON ROAD Berkeley, CA 94720	\$ 2,978	Person <input checked="" type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)
—	_____	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)
—	_____	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)
—	_____	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II if there is a noncash contribution.)

**990 SCHEDULE OF OTHER INCOME**

Attachment 1: page 1 - 990-PF Page 1, Part I, Line 11

Open to Public Inspection	For calendar year 2010 or tax period beginning _____, and ending _____	
Name of Organization <b>FUSION POWER ASSOCIATES</b>		Employer Identification Number <b>52-1162794</b>

Description of Other Income	Revenue and Expenses	Net Investment Income	Adjusted Net Income
MEETINGS & SEMINARS	34,515		
PUBLICATIONS	14,960		
DUES	49,165		
<b>Totals:</b>	<b>98,640</b>		

## 990 SCHEDULE OF ACCOUNTING FEES

Attachment 2: page 1 - 990-PF Page 1, Part I, Line 16b

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____
Name of Organization <b>FUSION POWER ASSOCIATES</b>	Employer Identification Number <b>52-1162794</b>

Accounting Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charity
TAX PREPARATION	900	90		810
<b>Total:</b>	<b>900</b>	<b>90</b>		<b>810</b>

## 990 SCHEDULE OF OTHER PROFESSIONAL FEES

Attachment 3: page 1 - 990-PF Page 1, Part I, Line 16c

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____		
Name of Organization <b>FUSION POWER ASSOCIATES</b>			Employer Identification Number <b>52-1162794</b>

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charity
LEGAL FEE	144	144		
<b>Total:</b>	144	144		

## 990 SCHEDULE OF TAXES PAID

Attachment 4: page 1 - 990- PF Page 1, Part I, Line 18

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____		
Name of Organization <b>FUSION POWER ASSOCIATES</b>		Employer Identification Number <b>52-1162794</b>	

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charity
REAL ESTATE TAX	4,806	240		4,566
OTHER	49	49		
PAYROLL TAXES	600	18		582
<b>Total:</b>	<b>5,455</b>	<b>307</b>		<b>5,148</b>

## 990 OTHER EXPENSES SCHEDULE

Attachment 5: page 1 990-PF Page 1, Part I, Line 23

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____
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Name of Organization <b>FUSION POWER ASSOCIATES</b>	Employer Identification Number <b>52-1162794</b>
--	---

Description of Activity	Revenue and Expenses	Net Investment Income	Adjusted Net Income	Disbursements for Charity
SUPPLIES	6,538	65		6,473
TELEPHONE	3,227	32		3,195
POSTAGE & DELIVERY	1,245	24		1,221
BANK CHARGES	1,449	145		1,304
FUSION ENGINEERING AWARD	500			500
PLASMA SCIENCE RESEARCH & AWARD	8,167			8,167
<b>Total:</b>	<b>21,126</b>	<b>266</b>		<b>20,860</b>

**990 SCHEDULE OF LAND, BUILDING & EQUIPMENT**

Attachment 6: page 1 - 990-PF Page 2, Part II, Line 14

Open to Public  
Inspection

For Calendar year 2010, or tax year period beginning

and ending

Name of Organization

FUSION POWER ASSOCIATES

Employer Identification Number

52-1162794

Category or Description of Property	Cost or Other Basis	Accumulated Depreciation	End of Year Book Value	Ending FML (990-PF Only)
CONDO FURNITURE	134,205 36,169	65,792 36,169	68,413	
<b>Total:</b>	<b>170,374</b>	<b>101,961</b>	<b>68,413</b>	

**990 SCHEDULE OF OTHER INCREASES**

Attachment 7: page 1 - 990- PF Page 2, Part III, Line 3

Open to Public Inspection	For calendar year 2010, or tax period beginning	, and ending
Name of Organization FUSION POWER ASSOCIATES	Employer Identification Number 52-1162794	

Description of Increase	Total Amount
UNREALIZED GAIN ON INVESTMENTS	1,804
<b>Total:</b>	<b>1,804</b>

990 BOOKS ARE IN CARE OF

Attachment 8 - 990-PF Page 5, Part VII-A, Line 14

Open to Public Inspection For calendar year 2010, or tax period beginning , and ending

Name of Organization FUSION POWER ASSOCIATES Employer Identification Number 52-1162794

Part VII-A - Line 14

Individual Name RUTH WATKINS

or Business Name

Street Address 2 PROFESSIONAL DR #249

U.S. Address:

Zip code 20879 City Gaithersburg State MD

Foreign Address

City

Province or State

Country

Postal code

Phone Number (301) 258-0545

Fax Number

**990 CURRENT OFFICERS, DIRECTORS, TRUSTEES, AND KEY EMPLOYEES**

Attachment 9: page 1 - 990-PF Page 6, Part VIII

Open to Public Inspection	For calendar year 2010, or tax period beginning , and ending			
Name of Organization				Employer Identification Number
FUSION POWER ASSOCIATES				52-1162794
(A) Name and Address	(B) Title and Average Hrs per Week	(C) Compensation (If not paid, enter 0)	(D) Cont. to Employee Ben. Plans & Def. Comp.	(E) Expense Account & Other Allowances
STEPHEN O DEAN 2 PROFESSIONAL DR #249 Gaithersburg, MD 20879 See Comp. Expl. #1	PRESIDENT 20.00	45,500	0	0
RUTH WATKINS 2 PROFESSIONAL DR #249 Gaithersburg, MD 20879 See Comp. Expl. #2	VICE PRES 7.00	7,840	0	0
LIST ATTACHED  USA,	DIRECTORS	0	0	0

**990 COMPENSATION EXPLANATION**

Attachment 10: page 1 - 990-PF Page 6, Part VIII, Officer Compensation Explanation

Open to Public Inspection	For Calendar year 2010, or tax year period beginning	and ending
Name of Organization FUSION POWER ASSOCIATES		Employer Identification Number 52-1162794

Name	Explanation
Officer Comp. Expln. #1 STEPHEN O DEAN	MANAGES THE ASSOCIATION. PLANS MEETINGS, FORUMS AND SEMINARS. INTERACTS WITH GOVERNMENT AND MEMBERS.
Officer Comp. Expln. #2 RUTH WATKINS	KEEPS RECORDS, FILES REPORTS, MAKES CALLS AND GENERAL OFFICE WORK.

## 990 SUMMARY OF DIRECT CHARITABLE ACTIVITIES

Attachment 11: page 1 - 990-PF Page 7, Part IX-A, Line 1

Open to Public Inspection	For calendar year 2010, or tax period beginning	, and ending
Name of Organization FUSION POWER ASSOCIATES	Employer Identification Number 52-1162794	

Charitable Activity

PUBLISHING A BIMONTHLY NEWSLETTER FOR MEMBERS AND OTHER INTERESTED PARTIES  
THE NEWSLETTER REPORTS ON TECHNICAL DEVELOPMENTS RELATING TO FUSION POWER  
GENERATION, DISCUSSES ADMINISTRATIVE AND GOVERNMENTAL ACTIVITIES AND  
DECISIONS RELATING TO FUSION POWER DEVELOPMENT AND ANNOUNCES MEETINGS,  
FORUMS AND SYMPOSIA AT WHICH FUSION POWER WILL BE DISCUSSED. COPIES OF THE  
NEWSLETTER PUBLISHED FOR MARCH/APRIL AND NOVEMBER/DECEMBER 2010 ARE  
ATTACHED AS ATTACHMENTS A-1 AND A-2.

## 990 SUMMARY OF DIRECT CHARITABLE ACTIVITIES

Attachment 12: page 1 - 990-PF Page 7, Part IX-A, Line 2

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____	
Name of Organization FUSION POWER ASSOCIATES		Employer Identification Number 52-1162794

Charitable Activity

SPONSORING CONFERENCES, FORUMS AND OTHER STUDIES TO ASSESS THE TECHNOLOGICAL ADVANCES OF FUSION POWER GENERATION. THE PRODUCT OF ANY SUCH CONFERENCE, FORUM OR STUDY IS MADE AVAILABLE TO ALL PERSONS, INCLUDING INTERESTED GOVERNMENT OFFICIALS AND MEMBERS OF THE PUBLIC. FRA SPONSORED ONE CONFERENCE IN 2010. THE PROCEEDINGS OF CONFERENCES ARE PUBLISHED IN THE JOURNAL OF FUSION ENERGY (PLENUM PRESS).

## 990 SUMMARY OF DIRECT CHARITABLE ACTIVITIES

Attachment 13: page 1 - 990-PF Page 7, Part IX-A, Line 3

Open to Public Inspection	For calendar year 2010, or tax period beginning	, and ending
Name of Organization FUSION POWER ASSOCIATES		Employer Identification Number 52-1162794

Charitable Activity

RESEARCH AND ANALYSES FUSION. THE FOCUS OS SUCH RESEARCH AND ANALYSES IS THEPROGRAM MANAGEMENT AND DEVELOPMENT OF FUSION SCIENCE AND TECHNOLOGY. FPA RECEIVED GRANTS IN 2010 FROM THE AMERICAN PHYSICAL SOCIETY, THE IEEE, AND LAWRENCE BERKELEY NATIONAL LABORATORY. FPA WILL CONTINUE TO CONDUCT CONFERENCES, PUBLISH NEWSLETTERS AND PERIODICALS, REPORTS, AND TO RESPOND TO INVITATIONS TO MAKE PRESENTATIONS TO GOVERNMENT PANELS, PUBLIC FORUMS, OR OTHER GROUPS INTERESTED IN FUSION POWER PRODUCTION OR ENERGY PRODUCTION GENERALLY. IN ADDITION, FPA ANTICIPATES THAT, AS FUNDING PERMITS, THE ABOVE ACTIVITIES MAY BE EXPANDED

**990 PART VII - ANALYSIS OF INCOME-PRODUCING ACTIVITIES**

Attachment 14: page 1 - 990-PF Page 12, Part XVI-A, Line 1

Open to Public Inspection	For calendar year 2010, or tax period beginning _____, and ending _____
---------------------------	---

Name of Organization <b>FUSION POWER ASSOCIATES</b>	Employer Identification Number <b>52-1162794</b>
--	---

Item	Program Service Revenue	Unrelated Business Income		Excluded by Section 512, 513 or 514		(e) Related or Exempt Function Income (see instructions)
		(a) Bus Code	(b) Amount	(c) Exc Code	(d) Amount	
a	MEETINGS					34,515
b	PUBLICATIONS					14,960
<b>Totals:</b>						<b>49,475</b>

**990 SCHEDULE OF RELATIONSHIP OF ACTIVITIES  
TO THE ACCOMPLISHMENT OF EXEMPT PURPOSES**

Attachment 15: page 1 990-PF Page 12, Part XVI-B

Open to Public Inspection	For calendar year 2010, or tax period beginning	, and ending
Name of Organization FUSION POWER ASSOCIATES		Employer Identification Number 52-1162794

Line Number	Briefly Describe How the Activity Reported In Column (E) of Part VII Specifically Contributed to the Accomplishment of The Organization's Exempt Purposes (other than by providing funds for such purposes).
1a	Sponsored conferences, forums and studies. relating to fusion power generation. Published
1a	news letters and proceedings of the meetings.
2	Same as above.
3	Used to assist in operation of the office.
4	Same as above.

## 2010 Federal Depreciation Schedule

FUSION POWER ASSOCIATES  
52-1162794

03-29-2011

Description	Date	Method	Year	Cost	Land/ Other	§179	Spec Allow	Basis	Prior	Current
<b>N/A - Not Applicable</b>										
CONDO	01-01-84	A S/LMM	30	134,205	56,805	0	0	77,400	63,211	2,581
FURNITURE	01-01-84	200DBHY	7	36,169	0	0	0	36,169	36,169	0
2 Assets		Totals		170,374	56,805	0	0	113,569	99,380	2,581
2 Assets		Grand Totals		170,374	56,805	0	0	113,569	99,380	2,581

\* Asset disposed this year

~C Carryover basis in like-kind exchange transaction

~B Excess basis in like-kind exchange transaction

## 2010 AMT Depreciation Schedule

FUSION POWER ASSOCIATES  
52-1162794

03-29-2011

Description	Date	Method	Year	Basis	Prior	AMT	Regular	Adjust
<b>N/A - Not Applicable</b>								
CONDO	01-01-84	A S/LMM	40	77,400	10,322	2,581	2,581	0
FURNITURE	01-01-84	150DBHY	10	36,169	0	0	0	0
2 Assets		Totals		113,569	10,322	2,581	2,581	0
2 Assets		Grand Totals		113,569	10,322	2,581	2,581	0

\* Asset disposed this year

~C Carryover basis in like-kind exchange transaction

~B Excess basis in like-kind exchange transaction

2010 DETAIL STATEMENTS

FUSION POWER ASSOCIATES

52-1162794

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STATEMENT #1 - Contributions, gifts, grants (EZ1 PF1 Line 1)

LAWRENCE BERKELEY NATL LAB.....	3,056
COALITION FOR PLASMA SCIENCE.....	8,497
SMALL DONATIONS.....	5,490

TOTAL CARRIED TO EZ1 PF1 Line 1.....	17,043
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# Fusion Power Report

Complete Coverage Of Worldwide Fusion Developments

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## SLANTS & TRENDS

**President Obama** submits FY 2011 budget to Congress.

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**Scientists at Lawrence Livermore National Laboratory** have fired 1 Megajoule of laser energy onto a target at the National Ignition Facility (NIF).

See Story on page 6

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**ITER Heads of Delegation**, meeting February 23-24, received recommendations from the ITER Organization for revised construction schedule options and referred the matter to its Management Advisory Committee. The **ITER Council** is expected to give final approval to a new ITER schedule at its June meeting.

See Story on page 7

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**The ITER Organization** has recently approved Procurement Arrangements for a number of sub-systems.

See Story on page 7

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**Prince Albert II of Monaco** recently visited the ITER site. Monaco is providing 5.5 million Euros to support Postdoctoral Fellowships at ITER. The Prince told the ITER staff and Fellows that ITER "should ultimately open the way for energy from abundant resources equitably distributed over the entire planet."

See Story on page 7

**Activities on a Fusion Materials Test Facility (IFMIF)** are underway under the EU-Japan "broader approach" agreement.

See Story on page 9

**The UK Research Council** has issued a report that provides "a revised strategy for fusion for energy research."

See Story on page 9

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**German Chancellor Angela Merkel** endorsed fusion saying, "We want to bring the type of energy the Sun produces to Earth."

See Story on page 10

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<i>JET, Tore Supra, Asdex Support ITER</i> .....	Page 8
<i>MIT Hosts Broad Fusion Effort</i> .....	Page 8
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## FY 2011 President's Budget

President Obama submitted his FY 2011 budget to Congress on February 1. The Department of Energy would receive \$28.4 B compared to \$26.6 B appropriated in FY 2010. However, the DOE also received \$36.7 B in "stimulus" funds so the FY 2011 budget reflects a real decline in overall spending. The budget requests \$5.1 B for the Office of Science compared to \$4.9 B appropriated in FY 2010. However, the Office of Science also received \$1.6 B in "stimulus" funding so that the Office of Management and Budget estimates the Office of Science FY 2011 spending will be approximately level with that in FY 2010.

Within the Office of Science, the Office of Fusion Energy Sciences (OFES) would receive \$380 M, compared to \$395 M appropriated in FY 2009 and \$426 M appropriated in FY 2010. However, the OFES also received \$91 M in "stimulus" funding, so that the Office of Management and Budget estimates the real OFES spending to be \$468 M in FY 2009 and an estimated \$444 M in FY 2010. Not counting the stimulus funding, the OFES states that the budget reduction of \$46 M is taken by reducing planned expenditures for ITER by \$55 M, reducing some other programs by \$3 M and increasing other programs by \$12 M.

OFES asks for \$80 M for ITER in FY 2011 compared to \$135 M provided in FY 2010. OFES says the reduction reflects "the slow rate of progress by the ITER Organization and some Members Domestic Agencies who are responsible for critical path hardware components, which has delayed the construction schedule." They also cite "design changes and other actions affecting hardware scope and manufacturing costs, and French and EU licensing and regulatory requirements." The original ITER cost and schedule, provided to Congress in 2006, called for the U.S. to have spent \$665 M through the end of FY 2010 towards a total cost to the U.S. of \$1.12 B. Currently the U.S. is on track to have spent only \$471 M through the end of FY 2010. The FY 2011 budget submission no longer provides U.S. ITER funding needs beyond FY 2011, saying only that they are "to be determined." The budget document states that the best estimate is that U.S. ITER costs will likely be between \$1.45 B and \$2.2 B, consistent with a previously revised estimate.

Of the \$12M increase requested for non-ITER (domestic) fusion programs of OFES, \$6.5 M is requested for "a significant expansion of the Fusion Energy Sciences High Energy Density Laboratory Physics initiative launched in FY 2009." Other increases include \$2 M for Fusion Simulation Pro-

gram, \$2.3 M for DIII-D, and \$1 M each for Alcator C-Mod and NSTX. Materials research would receive an increase of \$0.5M.

Within the National Nuclear Security Administration (NNSA), Inertial Confinement Fusion Ignition and High Yield Campaign would receive \$482 M, compared to \$437 M in FY 2009 and \$458 M in FY2010. Most of the increase would be provided for "NIF Diagnostics, Cryogenics, and Experimental Support."

Further details can be found at:

<http://www.cfo.doe.gov/budget/11budget/index.htm>

and

<http://www.whitehouse.gov/omb/budget/fy2011/assets/doe.pdf>

## NIF Fires One Megajoule of Laser Energy onto Target

Scientists at the National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL) have successfully delivered an historic level of laser energy — more than 1 megajoule — to a target in a few billionths of a second and demonstrated the target drive conditions required to achieve fusion ignition. This is about 30 times the energy ever delivered by any other group of lasers in the world.

The NIF laser system, the only megajoule laser system in the world, began firing all 192-laser beams onto targets in June 2009. In order to characterize the X-ray drive achieved inside the target cylinders as the laser energy is ramped up, the earlier experiments were conducted at lower laser energies and on smaller targets than will be used for the ignition experiments. These targets used gas-filled capsules that act as substitutes for the fusion fuel capsules that will be used in the 2010 ignition campaign. The 1 MJ shot represents the culmination of these experiments using an ignition-scale target for the first time.

These tests have demonstrated that NIF's laser beams can be effectively delivered to the target and are capable of creating sufficient X-ray energy in the target cylinder to drive fuel implosion. The implosions achieved with the surrogate capsules have also been shown to have good symmetry that is adjustable through a variety of techniques. The next step is to move to ignition-like fuel capsules that require the fuel to be in a frozen hydrogen layer (at 425 degrees Fahrenheit below zero) inside the fuel capsule. NIF is currently being made ready to begin experiments with ignition-like fuel capsules in the summer of 2010.

## ITER Update

The ITER schedule and resource estimates (i.e., cost) have been under review for about the past two years. In June 2008, the ITER Council approved a two-year slip in first operations, from 2016 to 2018. First DT fusion plasma would be produced in 2023. At the Council meeting in June 2009, the 2018 date was kept but a further slippage in schedule was approved for DT operations until 2026. At the November 2009 ITER Council meeting, some ITER partners, notably the European Union, proposed a further schedule slippage in ITER first operations but some of the other partners objected, resulting in a request for further analysis. At a February 23-24 meeting of "ITER Heads of Delegations" the results of that analysis were presented and will be further commented on by the ITER Management Advisory Committee, which meets in mid-March. A final decision on the schedule is expected at the June 2010 meeting of the ITER Council.

Uncertainty in the ITER schedule, which partly is the result of design changes, is also affecting estimates of costs to the ITER partners. In the U.S., for example, ITER costs are now given as a "range" between \$1.4 billion to \$2.2 billion (compared to an original estimate of \$1 billion). A recent review of U.S. cost estimates by a Department of Energy panel said the likely cost to the U.S. would likely be at or near the upper end of the range. In view of the uncertainties in ITER cost and schedule, the President's budget for FY 2011 cut DOE's request for ITER funding from \$135 million in FY 2010 to only \$80 million in FY 2011. Currently, the U.S. is on track to have spent only \$471 million on ITER through the end of FY 2010 of the likely total \$2.2 billion required to complete ITER construction.

## More on ITER Progress

The ITER European Domestic Agency has signed a contract with a French consortium of companies to construct the Poloidal Field (PF) Coil Winding Facility. In the 253-meter long building, six PF coils, ranging in diameter from 8 to 24 meters, will be wound. The facility will be at the ITER site because the coils are "simply too big for transport." Construction will start in the Summer of 2010 and will be the first of 39 buildings to be erected on the ITER platform.

The Japanese ITER Domestic Agency and Nippon Steel Engineering have completed the compaction and spooling of the first dummy copper conductor unit for ITER's Toroidal (TF) Field Coils, with a length of 760 meters. The dummy TF conductor is a necessary step before superconductor cable-in-conduit is fabricated. A 900-meter long industrial

jacketing line has been set up to fabricate the Japanese share of the TF and Central Solenoid (CS) conductors. The first superconductor cable-in-conduit lengths are now being fabricated.

The U.S. ITER Project Office has awarded a Basic Ordering Agreement to AREVA Federal Services of Charlotte, North Carolina for design and fabrication of the Tokamak Cooling Water System, a major U.S. contribution to the ITER project. Specific work tasks will be authorized by individual task orders, which are expected to number approximately 30.

ITER Director-General Kaname Ikeda and the Head of the Indian ITER Domestic Agency, Shishir Deshpande, signed a Procurement Arrangement (PA) for supply of the radio-frequency power sources for the ITER ion cyclotron heating and current drive systems. A total of 20 Megawatts of RF power will initially be available for the system. The value of the PA is approximately 27.8 million Euros.

A Procurement Arrangement (PA) has also been signed between the ITER Organization and the Russian ITER Domestic Agency for the High Heat Flux Testing of ITER's Plasma-Facing Components (PFC). The testing will be performed at a new facility under construction at the Efremov Institute in St. Petersburg by means of an 800-kilowatt (60-kilovolt) electron beam. ITER's PFC's are designed to cope with heat loads of up to 20 Megawatts per square meter.

Following approval by the ITER Council in November 2009, a new Neutral Beam Test Facility, in Padua, Italy, is now part of the ITER baseline. The Consorzio RFX is in the process of finalizing details before construction begins. The facility will consist of two test stands, one for testing negative ion sources and one for testing a full-size 1 Megavolt ITER neutral beam injector. Europe, Japan and India are contributing to the project, the building for which are being provided by Italian research institutions. The ITER neutral beam system must operate at full power for periods up to about 3600 seconds.

For additional details on ITER progress, visit <http://www.ITER.org> and click on Newslines.

## Principality of Monaco Supports ITER Fellowships

The Principality of Monaco is providing 5.5 million Euros to the ITER project over 10 years to support five Postdoctoral Fellowships every two years and a bi-annual International Conference on ITER-

related research. The first of these conferences is scheduled to be held in Monaco in October 2010. Recently, Prince Albert II of Monaco, arriving by helicopter, visited the ITER site and met with both ITER management and the first five Fellows.

In an address to the Fellows and ITER staff, the Prince said that the ITER project "opens vast prospects for future generations." He said, "The project quite naturally attracted my attention and that of the Monegasque Government, since it should ultimately open the way for energy from abundant resources, equitably distributed over the entire planet."

## JET, Tore Supra and Asdex Upgrade Provide Support for ITER

As ITER, the world's first fusion engineering experimental reactor, commences construction, tokamak groups around the world are focusing their research on providing data for ITER's design, construction and eventual operation. Among these groups are the efforts of the European Union's three major tokamak facilities: JET, Tore Supra and Asdex Upgrade.

The Joint European Torus (JET), located in the UK, is the world's largest operating tokamak, with capability to operate with fusion fuels deuterium and tritium. JET holds the world record for producing fusion in a tokamak: 16 Megawatts (produced in 1997), approximating breakeven conditions. JET's most recent experimental campaign came to a successful conclusion on October 23, 2009. During that campaign, JET successfully tested ITER-relevant techniques for heating plasma using ion cyclotron resonance heating. JET is now undergoing a 65-week shutdown for upgrades to allow experiments in close support for ITER. Among the modifications, JET's plasma facing components will be changed from carbon to a combination of beryllium and tungsten. In parallel, JET's diagnostic and control capabilities will be enhanced and the neutral beam heating power will be increased from 23 to 34 Megawatts. One sign of the breadth of the European fusion program is that the Romanian National Institute of Laser, Plasma and Radiation Physics has been chosen to put tungsten coatings on 2000 wall and divertor tiles using a technique developed by the Romanian Fusion Association. JET modifications are scheduled to be completed in November 2010, with experiments starting in the Spring of 2011. For more information: <http://www.jet.efda.org>

Tore Supra, located in Cadarache, France, is Europe's premiere superconducting, long-pulse to-

kamak. The facility is currently testing ITER-relevant lower hybrid current drive technologies, with the aim of producing plasma discharges up to 1000 seconds. Experiments to this end will begin in 2010 starting with delivering 2 MW of lower hybrid power to the plasma for about 60 seconds. Ion cyclotron resonance heating of the plasma will be used to heat the plasma. The facility has 9 MW of ICRH available for 30 seconds or 3 MW for 1000 seconds.

Asdex Upgrade, located in Garching, Germany, is focused on enhancement and extension of operation to low collisionality plasmas as well as pedestal, plasma rotation and MHD physics. During a January-August 2010 shutdown, Asdex will install internal coils to study the effects of resonant magnetic perturbations on ELMs and also improve the compatibility of ICRF heating with a full tungsten wall.

Additional information on European fusion activities can be found at <http://www.efda.org>

## Fusion News from MIT

Scientists at the MIT Plasma Science and Fusion Center (PSFC) are performing research on fusion across a broad spectrum, including tokamaks, alternate concepts and inertial confinement fusion.

The MIT Alcator C-Mod is one of three major tokamaks in the U.S. It has higher magnetic field and consequently contains higher density plasma than other tokamaks. It is currently studying issues such as high-Z walls and high performance divertors important for ITER and beyond. Unlike most tokamaks that use neutral beams for heating the plasma, Alcator C-Mod relies on the more elegant technologies of lower hybrid and ion cyclotron resonance radiofrequency power to both heat and to study current drive in the plasma. Graduate students are key, integral members of the scientific team. Currently 33 full time students are doing their Ph.D. research on C-MOD. Fusion development being a long, hard task, the training of new, young researchers is viewed as an essential element to the eventual success of fusion as an energy source. Additional information on C-Mod can be found at [http://www.psfc.mit.edu/research/alcator/pubs/CMOD\\_PAC\\_2010/marmar\\_intro\\_pac\\_2010.pdf](http://www.psfc.mit.edu/research/alcator/pubs/CMOD_PAC_2010/marmar_intro_pac_2010.pdf) and at [http://fire.pppl.gov/fpa09\\_cmod\\_marmar.pdf](http://fire.pppl.gov/fpa09_cmod_marmar.pdf)

Among the several "alternate concepts" (to the tokamak), one of the most innovative is the Levitated Dipole Experiment (LDX), a joint project between MIT and Columbia University and located at MIT. The experiment has a levitated internal ring that creates a magnetic dipole field similar to that of the

Earth. The experiment is used to study both magnetospheric physics of the Earth and other planets, but also fundamental plasma physics that could one day lead to fusion using so-called "advanced fuels." The experiment only recently came into operation but has already achieved one of its principal goals: the formation of a peaked density profile due to the formation of a low frequency turbulent pinch, in accordance with theory. Such peaking has been seen in space but, until now, has not been reproduced in the laboratory. The results have just been published in the January 24 online edition of Nature Physics. For further information contact Mike Mauel, [mauel@columbia.edu](mailto:mauel@columbia.edu) or Jay Kesner, [kesner@psfc.mit.edu](mailto:kesner@psfc.mit.edu)

MIT scientists are also contributing to the field of inertial confinement fusion, collaborating with scientists at the University of Rochester, LLNL, General Atomics and others. Recently, the group demonstrated the use of charged particles to probe inertial fusion implosions on the Omega laser facility at the University of Rochester. Conventionally, diagnosing such implosions has relied on techniques utilizing x-rays, ultraviolet or visible light, and fusion neutrons. The new technique allows new details on what is happening inside the dense core of the imploding target. For further information, contact C. K. Li, [ckli@mit.edu](mailto:ckli@mit.edu) or Rich Petrasso, [petrasso@psfc.mit.edu](mailto:petrasso@psfc.mit.edu)

## Fusion Materials Test Facilities Activities Underway

In 2007, the European Union and Japan entered into a collaborative agreement, generally referred to as "the broader approach" to fusion, that consists of looking at technologies and facilities that would be required, in addition to ITER, to lay the basis for a fusion power plant. One such is the International Fusion Materials Irradiation Facility (IFMIF).

At Rokkasho, Japan, an IFMIF team consisting of about 20 people (soon to be 40) seconded from Japan, France, Italy, Germany and Spain have been coordinating the detailed design activities taking place in many European and Japanese institutes. The project is in what is called the Engineering Validation and Engineering Design Activities (EVEDA) phase.

According to IFMIF Project Leader Pascal Garin, several prototypes are being developed, including an accelerator "whose characteristics are well beyond the present state of the art" and a lithium test loop "to check all thermo-hydraulic characteristics of this very innovative system." In IFMIF, a parallel pair of 40 MeV Deuterium nuclei accelerators

will interact with a fast flowing film of liquid lithium to generate the 14 MeV neutrons that will, in turn, impact small samples of materials. Garin says, "The flux rate will be slightly above that of a reactor. In six years of operation we (will) create a degradation equivalent to about ten years of continuous (fusion reactor) operation."

The prototype accelerator is being manufactured mainly in Europe and will be tested in 2011 at CEA-Saclay. The lithium loop prototype will be installed in a dedicated facility at Orai, not far from Naka, Japan. The IFMIF team hopes that the process for deciding on a site to build IFMIF will be decided in the next few years and that a final IFMIF design report, i.e., one that allows for IFMIF construction, will be ready "four or five years from now."

## UK Research Council Issues Fusion Strategy

The United Kingdom's Research Council UK Energy Programme, <http://www.rcuk.ac.uk/energy>, has issued a report dated February 2010 prepared by its Science and Technology Facilities Council (STFC) and Engineering and Physical Sciences Research Council (EPSRC) that provides "a revised strategy for fusion for energy research."

The report states that "The potential of fusion to contribute as a major component of the future global energy system is sufficiently large that it should be pursued in the UK." It says, "It (fusion) needs continued funding for the long term, even when difficult financial choices are being made." It states, "The UK should continue to contribute to world-class research and international leadership in both MCF (magnetic confinement fusion) and ICF (inertial confinement fusion), particularly developing the technology pathway."

The report says that the EPSRC "will develop a long term base funding mechanism for magnetic confinement fusion as part of the energy programme." It says that for ICF, "the HiPeR project should continue to develop its business case and there should be a parallel document that clearly details the UK specific proposed activity and costs. When ready this should undergo an independent technical review."

Links to the full report and related material are posted at <http://fire.pppl.gov>

## German Chancellor Angela Merkel Endorses Fusion for Energy

On January 30, German Chancellor Angela Merkel called for fusion to be explored as a solution to the world's energy needs. She said that fusion, along with renewable energy sources such as wind and solar power, was a "future technology" worth investing in. "We want to bring the type of energy that the Sun produces to Earth," she said.

## Fusion-Fission Hybrid Report

The report of a panel charged by the U.S. Department of Energy to review the research needs for a possible fusion-fission hybrid energy system has been posted at <http://web.mit.edu/fusion-fission/>

The panel, chaired by Prof. Jeffrey Freidberg of MIT, began its work in June 2009 and also held a three day workshop September 30-October 2, 2009. About 100 scientists and engineers from the fusion and fission communities participated in the workshop. The names of the panel members and workshop attendees are listed in the report.

The report states that "a fusion-fission hybrid consists of a neutron-producing fusion core surrounded by a fission blanket" and notes that "hybrids are of interest because of their potential to address the main long-term sustainability issues related to nuclear power: fuel supply, energy production, and waste management." The report concludes that "a fusion-fission hybrid could contribute to all components of nuclear power: fuel supply, electricity production, and waste management."

## U. Texas to Host ITER Summer School

The 4th ITER International Summer School will be held at The University of Texas at Austin May 31-June 4, 2010. The theme for this year's school is "Magnetohydrodynamics and Plasma Control in Magnetic Fusion Devices." Information is available at <http://w3fusion.ph.utexas.edu/ifs/iiss2010/>

The mission of the ITER International Summer School is to prepare young researchers for mastering the current and anticipated challenges of magnetic fusion devices, and to spread the global knowledge required for a timely and competent exploitation of the ITER physics potential.

Links to further information are posted at <http://fire.pppl.gov>

## Abdou Awarded China Professorship

Mohamed Abdou (UCLA) has been awarded one of 20 "2010 Einstein Professorships of the Chinese Academy of Sciences". Abdou was selected for his pioneering contributions and outstanding leadership in the thermal, nuclear, and fusion fields. As part of this prestigious award, Abdou was invited to give two major lectures and to carry out in-depth academic discussions with researchers and graduate students at host institutes in China. Each year the Chinese Academy of Sciences awards Einstein Professorships to 20 distinguished international scientists and talented leaders actively working at the frontiers of science and technology.

## Calendar

Apr 19-23 International Conference on Diagnostics Methods Involved in Research and Applications of Plasmas. Mousson, Lorraine, France.  
<http://plasma2010.ijl.nancy-universite.fr>

Apr 19-23 European Energy Conference. Barcelona, Spain. <http://www.e2c-2010.org/>

June 20-24 37<sup>th</sup> IEEE International Conference on Plasma Science (ICOPS). Norfolk, Virginia.  
<http://www.eng.odu.edu/icops2010>

June 19-23 International Symposium on Non-thermal Plasma Pollution Control Technology and Sustainable Energy (ISNTP-7). St. Johns, Newfoundland, Canada.  
<http://faculty.uoit.ca/harvel/conferencesite.html>

Aug 8-13 15<sup>th</sup> International Congress on Plasma Physics (ICPP2010). Santiago, Chile.  
<http://www.icpp-lawpp-2010.cl/>

Sep 13-18 Alushta 2010 International Conference and School on Plasma Physics and Controlled Fusion and 4<sup>th</sup> Alushta International Workshop on the Role of Electric Fields in Plasma Confinement in Stellarators and Tokamaks. Alushta, Crimea, Ukraine.  
<http://www.kipt.kharkov.ua/conferences/ipp/2010/index.htm>



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**Sir Chris Llewellyn Smith** calls for Apollo-Style Fusion Effort.

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**Steve Cowley**, Director of the Culham Centre for Fusion Energy, listed among top 100 "most important and interesting people in British science."

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**ITER Director-General Osamu Motojima** establishes several new management initiatives and visits all seven ITER Parties Domestic Agencies.

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**ITER Superconducting Niobium-Tin Strand Production** reaches 100 tons, approximately 25% of total required for the toroidal field coils.

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**First Integrated Ignition Experiments** performed on National Ignition Facility in U.S.

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**U.S. Launches** Fusion Nuclear Science Pathways Assessment.

See Story on page 31

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**Francesco Romanelli** assumes chairmanship of the European Intergovernmental Research Forum.

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**David Crandall** appointed to key position for inertial fusion energy planning at U.S. Department of Energy.

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**Toshide Tsunematsu**, passed away September 4 after long, prestigious career in fusion.

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## Sir Chris Llewellyn Smith Calls for Apollo-style Fusion Effort

From 12-16 September, more than 2100 delegates from all around the world participated in the 21st World Energy Congress (WEC) in Montreal. For the first time, fusion was on the agenda for the Congress. Sir Chris Llewellyn Smith, former Chair of the ITER Council, gave a talk titled "Fusion -- Will it Ever be a Reliable and Competitive Source of Energy?" "We must pursue this option as soon as possible," he said. Calling for an "Apollo-style" approach to fusion, he said, "We should start building the demonstration reactor in parallel with ITER. There is nothing like learning by building. Get on with it and show the world that we can produce energy." He also noted that famous physicist Stephen Hawking, in a recent interview with the Guardian, had called for the need to put more money into fusion research.

For more information, including a video from the World Energy Congress:  
<http://www.iter.org/newslines/148/438>

## Cowley Makes Times (of London) Top 100 Scientists List

Steve Cowley, Director of the Culham Centre for Fusion Energy, has been named by The Times (of London) as one of the United Kingdom's most influential scientists. He was listed on the Eureka 100 Science List, which aims "to identify the most important and interesting people in British science." The Times says those on the list "are pushing back the boundaries of scientific understanding, transforming our lives through innovation and changing our attitudes to science, each other and the world." The list was compiled with the help of heads of universities, research bodies, businesses, scientific societies and government institutions.

## ITER Update

### Management

Since taking the helm as the new ITER Director-General, Osamu Motojima has established several management initiatives and visited all seven ITER international partners and their Domestic Agencies.

A special Task Force and a Working Group have been charged with exploring possible cost savings and cost containment measures, aiming at a reduction of approximately 10% of the total cost. Two possibilities that are being evaluated are the possibility of eliminating the need for ELM Control Coils or the need to perform "cold tests" on the superconducting magnets. Another new group, also reporting directly to the Director-General, aims to

strengthen coordination between the ITER Organization and the Domestic Agencies. Motojima is also looking into ways to simplify certain processes within the Organization and into ways to improve staffing selection and distribution among the seven Parties. To this end, he has established a Project Board, which he chairs, to oversee and advise on the ITER project.

During the first week of November, Motojima and ITER Organization staff met with the ITER Science and Technology Advisory Committee (STAC) and the ITER Management Advisory Committee (MAC). The STAC reviewed 22 possible ways to reduce costs. Recommendations of the ITER Organization, the STAC and the MAC will be reviewed by the ITER Council at their meeting November 17-18 in Cadarache.

### Superconducting Strand Production

More than 100 tons of niobium-tin superconducting wire, representing about half the total required for the ITER Toroidal Field Coils, have now been produced by six of the seven ITER Domestic Agencies (China, EU, Japan, South Korea, Russia and US). About half the total was produced in Japan. Before ITER, the world production is estimated to have been about 15 tons per year. The production of niobium-titanium wire for the ITER Poloidal Field Coils is now also beginning.

### Vacuum Vessel

The ITER European Domestic Agency (F4E) has signed a contract with a European consortium of companies for the supply of seven sectors of the ITER Vacuum Vessel. The contract will run for 6 years and is valued at almost 300 million EUR. It is the biggest single package of Europe's contribution to ITER and is the largest component of the ITER device. The other two sectors of the vacuum vessel will be supplied by Korea. The weight of the entire vacuum vessel, about 5000 tons, is equivalent to the weight of the Eiffel Tower.

### Neutral Beam Test Facility

ITER will be equipped with two neutral beam heating and current drive injectors, each delivering 16.5 MW with particle energies of 1 MeV, far beyond what is used in today's experiments. To test this new technology, a Neutral Beam Test facility is being built in Padua, Italy, with contributions from Europe, India and Japan. The official name of the facility is Padua Research on ITER Megavolt Accelerator, or PRIMA. It will have two test stands: SPIDER, which stands for "Source for the Production of Ions of Deuterium Extracted from an RF plasma" and MITICA, which stands for "Megavolt ITER Injector and Concept Advancement" which is

the actual prototype of the ITER Heating Neutral Beam.

### Export Controls

The ITER Council Working Group on Export Control, Peaceful Uses and Non-proliferation (ECWG), chaired by Mike Roberts of the U.S., met for its fifth meeting on 6-7 October in Japan. The meeting addressed the finalization of the lists of items that might be subject to Export Control. The lists will be presented to the ITER Organization, which will then start work on harmonization of the lists.

## First Integrated Ignition Experiment On The NIF Facility

On September 29, at 8:27 PM, NIF (the National Ignition Facility at Lawrence Livermore National Laboratory) fired its first integrated ignition experiment.

This experiment demonstrated the integration of the complex systems required for an ignition campaign. All 192-laser beams fired 1 MJ of laser energy into the first cryogenically layered capsule. This frozen "THD" layer uses a mixture of tritium, hydrogen and deuterium tailored to limit yield, and enable the most comprehensive physics results. All systems operated successfully and 26 Target diagnostics participated in the shot.

Project Director Ed Moses said, "This is a great moment in the 50-year history of Inertial Confinement Fusion (ICF). It represents significant progress in the ability to field complex experiments in support of Stockpile Stewardship, DoD, fundamental science and energy missions."

This achievement was made possible by the collaboration of Livermore, the Laboratory for Laser Energetics at University of Rochester, Los Alamos and Sandia National Laboratories, General Atomics and others around the country and the world made significant contributions.

## Magnetized Target Fusion

The October 2010 issue of *Discovery Magazine* features a discussion of Magnetized Target Fusion (MTF), in an article titled "The Long and Winding Road to Fusion." MTF explores the possibility of operating at a fusion fuel density intermediate between the relatively low density of the tokamak mainline magnetic approach to fusion and the ultra-high density characteristic of inertial confinement fusion. MTF has long been advocated by scientists at the Los Alamos National Laboratory. Experiments are underway in the Shiva Star facility located at the Air Force Research Laboratory in Al-

buquerque. The potential advantages of operating at intermediate density and details of the MTF program will be the subject of two papers (by Irv Lindemuth and Glen Wurden, respectively) at Fusion Power Associates annual meeting and symposium, "Fusion Energy: Focus on the Future" December 1-2 in Washington, DC.

## Fusion Nuclear Science Pathways Assessment Launched

The DOE Office of Fusion Energy Sciences (OFES) has commissioned a community assessment of the "nuclear science" needs of its long range program under the leadership of Chuck Kessel of Princeton Plasma Physics Laboratory. He has provided the following summary of the activity:

The Fusion Nuclear Science Pathways Assessment (FNS-PA) is intended to provide information to the OFES on the research and development required to establish a basis for a demonstration fusion power plant. In the ITER era we are entering, the focus on plasma and nuclear science together is becoming more compelling and necessary. ITER will provide critical information on burning plasma physics, as well as a number of technological issues ranging from superconducting magnets to divertor survivability. The Test Blanket Module effort on ITER will provide experience with candidate blanket technologies, at neutron fluxes integrated over time (ITER's total plant life) of 0.3 MW-years/m<sup>2</sup>. For comparison, a power plant is expected to produce 120-160 MW-year/m<sup>2</sup> over its lifetime, requiring the first wall and blankets to be replaced several times. There is clearly a need to pursue the nuclear aspects of fusion and integrate it with the plasma in order to close this and many other gaps that exist between ITER and a fusion power plant.

The report on *Priorities, Gaps and Opportunities: Toward a Long Range Strategic Plan for Magnetic Fusion Energy* (Greenwald report) and the *Research Needs for Magnetic Fusion Energy Sciences* (ReNeW report) have identified the many issues and research needs for a wide range of topics in fusion science. The present exercise is to dig deeper into the specification of research and development to a level allowing OFES to solicit proposals from the community. In the process this will also provide information to accurately motivate the whats, whys, hows, and whens of this research. Naturally there is an emphasis on the fusion nuclear science, but this will include research to access the required plasma conditions that support this as well.

The three main thrusts are 1) identify Demo/power plant characteristics in some detail (parameters, assumptions) and roll these back to identify gaps

and identify required R&D, 2) examine a series of FNS facility missions at a systems-analysis level to identify possible steps and the associated R&D, and 3) compile a list of research and development activities required to support both the pathway to DEMO and an FNS facility(s). Various members of the FNS-PA group (see below) are in the process of pulling together the information in a number of topical areas ranging from plasma-material interface test stands to generic R&D elements in fusion nuclear science. As part of our mission analysis, we are reviewing the existing FNS-Facility proposals and their design philosophies, to identify what R&D these infer.

Expert groups will be assembled from the community in a number of areas to work with the FNS-PA group to address detailed questions about the R&D needed, available facilities and their capabilities, leverage of international collaborations, and other aspects. As the assessment process evolves to the point of well-defined issues, time will be made available for overall community input and public discussion.

#### ***Members of the FNS-PA group:***

M. Abdou V. Chan R. Fonck R. Kurtz S. Milora J. Minervini N. Morley F. Najmabadi H. Neilson R. Nygren M. Peng D. Rej R. Stambaugh M. Tillack G. Tynan J. VanDam D. Whyte S. Willms B. Wirth

#### ***DOE FNS-PA group:***

S. Eckstrand C. Kessel M. Koepke G. Nardella E. Oktay, A. Opdenaker E. Synakowski .

## **NIF Team Wins 2010 Project of the Year Award**

National Nuclear Security Administration (NNSA) Administrator Thomas D'Agostino congratulated the team at the National Ignition Facility for winning the prestigious Project of the Year Award from the Project Management Institute (PMI). Citing groundbreaking technical achievement and exemplary management, PMI recognized NIF as the year's most innovative and successful project.

"NIF is an example of what the NNSA labs do best," said Administrator D'Agostino. "We are bringing together the best minds in science, engineering and technology to solve some of the nation's greatest challenges, and complete one of the largest and most complex projects in history. To be recognized by the Project Management Institute with such an important honor is recognition of the important and outstanding work being done by our contractors and federal oversight teams. I congratulate Dr. Miller, the entire team at Livermore,

and our NIF program managers at NNSA for a job well done."

Ed Moses, director of NIF, accepted the award October 9 during a special ceremony in Washington, DC to honor NIF as well as the other finalists. "NIF is an engineering and physics marvel," said Moses. "It could not have been done without the thousands of people who have been a part of this team. This award is a tribute to their hard work, their dedication and their innovation; and I am honored to accept it on their behalf."

Each year PMI singles out three finalists from worldwide nominees to recognize the accomplishments of the projects and the involved project teams for superior performance and execution of exemplary project management. One is awarded "Project of the Year." In addition to NIF, 2010 finalists included construction of the monumental Cowboys Stadium, the NFL's superstructure in Dallas, and the Norton Brownsboro Hospital, a facility featuring the latest in healthcare technology, in Louisville, Ky.

NIF was honored as a facility "pushing beyond the state of the art," bringing together scientists, engineers, construction workers and contractors, vendors, safety technicians, systems managers, administrators and much more to bring the \$3.5 billion project together. NIF has been a partnership of governments, academia and industrial collaborators, including the University of Rochester Laboratory for Laser Energetics, Los Alamos National Laboratory, Sandia National Laboratories, the United Kingdom Ministry of Defense and the French Commissariat a l'Energie Atomique.

Since NIF broke ground in 1997, more than 12,000 contracts were awarded to more than 8,000 vendor companies during project execution, representing \$1.8 billion worth of procurements.

NIF is noted for its technology breakthroughs, which had to be invented in tandem with NIF's construction. NIF scientists worked closely with optics vendors to make dramatic improvements in the manufacturing of precision large optics, including continuous-pour laser glass, rapid growth crystals and optical coatings. The NIF team also developed breakthroughs in pulsed-power electronics, innovative integrated computer control systems (requiring two million lines of code) and advanced manufacturing capabilities. These innovations resulted in dozens of awards from scientific societies around the world, among them the American Physical Society, the Optical Society of America, the R&D 100s, the Federal Laboratory Consortium, Fusion Power Associates and more.

NIF construction was officially completed in March 2009, and the laser was dedicated in a special ceremony on May 29, 2009, 12 years to the date after breaking ground. Since that time NIF has undergone a carefully planned series of experiments to test all aspects of laser performance, target physics and diagnostics before beginning initial ignition experiments in September. Fusion ignition is expected in one to two years.

In January 2010 NIF became the first laser to break the one-megajoule barrier, delivering about 30 times more laser energy than any other group of lasers in the world.

### Romanelli Chair of EIROforum

Francesco Romanelli, Leader of the European Fusion Development Agreement (EFDA) and the Joint European Torus (JET) fusion project, is also now chair of the EIROforum, the European Intergovernmental Research Organizations forum. The EIRO consists of seven partner organizations representing such diverse research areas as fusion, molecular biology, high energy physics (CERN), the European Space Agency, astronomy, the European Synchrotron Radiation Facility and neutron source research for condensed matter, chemistry and biology. The purpose of the forum is "to play an active and constructive role in promoting the quality and impact of European research."

Romanelli notes that, "Speaking as a group, the EIROforum has forged debates about the whole range of science and policy issues for the European Research Area."

He will be speaking at Fusion Power Associates 31st Annual Meeting and Symposium: Fusion Energy: Focus on the Future, December 1-2 in Washington, DC

For more information on the Fusion Power Associates meeting: <http://fusionpower.org>  
For more information on EFDA-JET: <http://www.jet.efda.org>

### Dave Crandall Assumes Key Role in Inertial Fusion for Energy

Dr. David Crandall, NNSA's Chief Scientist, has been asked to take on a unique and challenging assignment. Dr. Crandall will be directly supporting the Under Secretary for Science, Dr. Steven Koonin, on national security matters, including helping to design a government approach to inertial fusion energy technology. He will facilitate cooperation and collaboration between NNSA and the

Office of Science, which are key to advances in inertial fusion energy.

Dr. Dimitri Kusnezov, Director, Office of Research and Development for National Security Science and Technology in the Office of Defense Programs, will now serve as NNSA's Chief Scientist. In this capacity, Dr. Kusnezov will provide the leadership for NNSA's science, technology and engineering issues both internally and externally. He will also continue to lead our strategic interagency efforts for national security science and technology. Additionally, Dr. Kusnezov will retain his responsibilities in Defense Programs as the Chair of the Science Council.

Dr. Crandall will speak at Fusion Power Associates 31st Annual Meeting and Symposium: Fusion Energy: Focus on the Future, December 1-2 in Washington, DC (<http://fusionpower.org>). His topic will be "Developing Technology for Inertial Fusion Energy."

He can be reached at his new email address: [David.Crandall@science.doe.gov](mailto:David.Crandall@science.doe.gov)

### Toshide Tsunematsu Passes

Dr. Toshhide Tsunematsu passed away on September 4 following heart surgery. He was a Member of the Japanese delegation to the ITER Council and its Management Advisory Committee (MAC). Since January 2010, he was also Vice-Chair of the ITER Council.

Dr. Tsunematsu began his scientific career in 1976 at the Japan Atomic Energy Research Institute (JAERI). In 1993, he was appointed Leader of the ITER Home Team Design Group in Naka. In April 2000, he became Director of the Naka Fusion Research Establishment and, in April 2006, he became Director-General of the Fusion Directorate at Naka. From October 2007 to March 2009, he headed the Japanese ITER Domestic Agency.

### Joe Gavin Passes, Age 90

Joseph G. Gavin Jr., who rode herd over the immensely complex design, construction and testing of the first manned vehicle to land on the moon — a task that included anticipating 400 different landing surfaces, from ice to boulders to dust to potholes — died on Saturday November 6 in Amherst, Mass. He was 90. The cause was acute leukemia and pneumonia, his family said.

An MIT-trained engineer who had worked on early jet aircraft engines during World War II, Joe managed the 7,500-member team that made the Eagle,

the clunky lunar module that settled on the lunar surface, in a spot called the Sea of Tranquility, on July 20, 1969. "Houston, Tranquility Base here," Neil A. Armstrong, the Apollo 11 commander, announced to mission control as half a billion people watched on television. "The Eagle has landed." Joe would go on to be president, chief operating officer and chairman of the executive committee of the Grumman Corporation. The company merged into the Northrop Corporation in 1994.

In the mid-1970s he developed an interest in the U.S. fusion energy program. He served on fusion advisory committees, including one for Congressman Mike McCormack that led to the unanimous passage by Congress of the Magnetic Fusion Energy Engineering Act of 1980. That Act, signed by President Jimmy Carter in October 1980, called for operation of a fusion electric power demonstration plant by the year 2000.

When Fusion Power Associates (FPA) was formed in August 1979, Grumman Corporation became a Charter Member and Joe served on the Board of Directors for many years. He became an Individual Affiliate of Fusion Power Associates, a relationship he maintained to the present time. He was the recipient of the FPA Distinguished Career Award in 1996.

Joseph Gleason Gavin Jr. was born on Sept. 18, 1920, in Somerville, Mass. As a boy, he was enthralled by the imaginary exploits of Buck Rogers and the real ones of Charles Lindbergh. He once traveled for hours to see "Lucky Lindy" land at a small airfield in Vermont. He earned undergraduate and master's degrees in aeronautical engineering from the Massachusetts Institute of Technology, where he was captain of the varsity crew. During World War II, he was a lieutenant in the Navy involved in the early work on jet aircraft propulsion. He joined Grumman in 1946 as a design engineer working on Navy fighters. Before and after his retirement in 1985, he advised the federal government on energy policy and space matters and pursued charitable interests.

He is survived by his wife of 67 years, the former Dorothy Grace Dunklee; his sons, Joseph III and Donald; and four grandchildren. A daughter, Tay Anne Gavin Erickson, died in 1998.

In remarks to an M.I.T. alumni publication, Mr. Gavin, a downhill skier until the age of 86, described the appeal of his work: "There's a certain exuberance that comes from being out there on the edge of technology, where things are not certain, where there is some risk, and where you make something work."

He believed in an aggressive, engineering-oriented approach to fusion development. He once commented, "If you plan to develop fusion in 20 years, it might still take you 30 years, but if you plan for 50 years, it will take you at least 50 years." His spirit will be sorely missed.

## Calendar

Nov 7-10 19<sup>th</sup> Topical Meeting on the Technology of Fusion Energy (TOFE). Las Vegas, Nevada. <http://fed.ans.org/TOFE19>

Nov 8-12 Annual Meeting of the APS Division of Plasma Physics. Chicago, Illinois. <http://www.aps.org/meetings/meeting.cfm?name=DP10>

Nov 15-17 15<sup>th</sup> Workshop on MHD Stability Control. Madison, Wisconsin. <https://fusion.gat.com/conferences/mhd10>

Nov 23-25 1<sup>st</sup> Joint ITER-IAEA Technical Meeting on Analysis of ITER Materials and Technologies. Monaco.

Dec 1-2 31<sup>st</sup> Fusion Power Associates Annual Meeting and Symposium "Fusion Energy: Focus on the Future." Washington, DC. <http://fusionpower.org>

Dec 6-10 6<sup>th</sup> IAES Technical Meeting on Steady State Operation of Magnetic Fusion Devices. Vienna, Austria. <http://www-naweb.iaea.org/naweb/physics/meetings/TM39573.html>

May 2-4 2011 International Sherwood Fusion Theory Conference. Austin, Texas.

May 15-19 15<sup>th</sup> International Conference on Emerging Nuclear Energy Systems (ICENES). San Francisco. <http://www.icenes2011.org/>

June 26-30 38<sup>th</sup> IEEE International Conference on Plasma Science (ICOPS) and the 24<sup>th</sup> Symposium on Fusion Engineering (SOFE). Chicago. <https://engineering.purdue.edu/ICOPS2011/>

# The Gazette

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3/17/11

This is to certify that the annexed advertisement of NOTICE: FUSION POWER ASSOCIATES ANNUAL REPORT was published in the Gaithersburg & Germantown Gazette newspapers, a weekly newspaper published in Montgomery County, Maryland The Ad appeared once a week for one week, before 3/18/11.

**Copy of Ad Attached**

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Publication Date(s)

3/16/11

The annual report of Fusion Power Associates for the Calendar Year ending December 31, 2010, is available during normal business hours at 2 Professional Drive, Suite 249, for inspection by any citizen who so requests within 180 days thereof. Stephen O. Dean, President (301) 258-0545. (3-16-11)

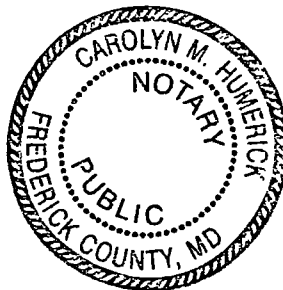
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## Depreciation and Amortization (Including Information on Listed Property)

Department of the Treasury  
Internal Revenue Service (99)

▶ See separate instructions.

▶ Attach to your tax return.

Name(s) shown on return <b>FUSION POWER ASSOCIATES</b>	Business or activity to which this form relates <b>FOR FORM 990-PF</b>	Identifying number <b>52-1162794</b>
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**Part I Election To Expense Certain Property Under Section 179**

Note: If you have any listed property, complete Part V before you complete Part I.

1 Maximum amount (see instructions) . . . . .	<b>1</b>	
2 Total cost of section 179 property placed in service (see instructions) . . . . .	<b>2</b>	
3 Threshold cost of section 179 property before reduction in limitation (see instructions) . . . . .	<b>3</b>	
4 Reduction in limitation Subtract line 3 from line 2. If zero or less, enter -0- . . . . .	<b>4</b>	
5 Dollar limitation for tax year. Subtract line 4 from line 1. If zero or less, enter -0-. If married filing separately, see instructions . . . . .	<b>5</b>	500,000
<b>6 (a) Description of property (b) Cost (busn use only) (c) Elected cost</b>		
7 Listed property. Enter the amount from line 29 . . . . .	<b>7</b>	
8 Total elected cost of section 179 property. Add amounts in column (c), lines 6 and 7 . . . . .	<b>8</b>	
9 Tentative deduction. Enter the smaller of line 5 or line 8 . . . . .	<b>9</b>	
10 Carryover of disallowed deduction from line 13 of your 2009 Form 4562 . . . . .	<b>10</b>	
11 Business income limitation. Enter the smaller of business income (not less than zero) or line 5 (see instructions) . . . . .	<b>11</b>	500,000
12 Section 179 expense deduction. Add lines 9 and 10, but do not enter more than line 11 . . . . .	<b>12</b>	
13 Carryover of disallowed deduction to 2011. Add lines 9 and 10, less line 12 . . . ▶	<b>13</b>	

Note: Do not use Part II or Part III below for listed property. Instead, use Part V.

**Part II Special Depreciation Allowance and Other Depreciation (Do not include listed property.) (See instructions.)**

14 Special depreciation allowance for qualified property (other than listed property) placed in service during the tax year (see instructions) . . . . .	<b>14</b>	
15 Property subject to section 168(f)(1) election . . . . .	<b>15</b>	
16 Other depreciation (including ACRS) . . . . .	<b>16</b>	2,581

**Part III MACRS Depreciation (Do not include listed property) (See instructions.)**

**Section A**

17 MACRS deductions for assets placed in service in tax years beginning before 2010 . . . . .	<b>17</b>	
18 If you are electing to group any assets placed in service during the tax year into one or more general asset accounts, check here . . . . . <input type="checkbox"/>		

**Section B -- Assets Placed in Service During 2010 Tax Year Using the General Depreciation System**

(a) Classification of property	(b) Month and year placed in service	(c) Basis for depr (business/investment use only -- see instructions)	(d) Recovery period	(e) Convention	(f) Method	(g) Depreciation deduction
19a 3-year property						
b 5-year property						
c 7-year property						
d 10-year property						
e 15-year property						
f 20-year property						
g 25-year property			25 yrs.		S/L	
h Residential rental property			27.5 yrs.	MM	S/L	
			27.5 yrs.	MM	S/L	
i Nonresidential real property			39 yrs.	MM	S/L	
				MM	S/L	

**Section C -- Assets Placed in Service During 2010 Tax Year Using the Alternative Depreciation System**

20a Class life					S/L	
b 12-year			12 yrs		S/L	
c 40-year			40 yrs.	MM	S/L	

**Part IV Summary (See instructions)**

21 Listed property. Enter amount from line 28 . . . . .	<b>21</b>	
22 Total. Add amounts from line 12, lines 14 through 17, lines 19 and 20 in column (g), and line 21. Enter here and on the appropriate lines of your return. Partnerships and S corporations -- see instructions . . . . .	<b>22</b>	2,581
23 For assets shown above and placed in service during the current year, enter the portion of the basis attributable to section 263A costs . . . . .	<b>23</b>	

For Paperwork Reduction Act Notice, see separate instructions.