

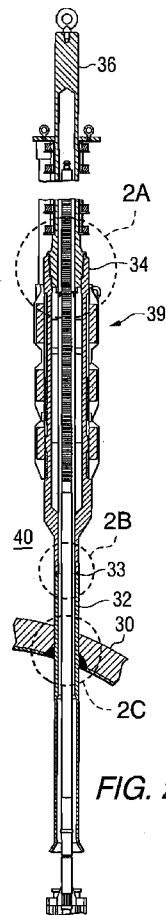


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- (74) Agents: COLDREN, Richard J. et al.; Westinghouse Electric Company LLC, 1000 Westinghouse Drive, Cranberry Township, PA 16066 (US).
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[Continued on next page]

(54) Title: CONTROL ROD DRIVE MECHANISM ("CRDM") ASSEMBLY FOR A NUCLEAR REACTOR

(57) Abstract: The present invention relates to a control rod drive mechanism assembly for a nuclear reactor having a nuclear reactor vessel, a nuclear reactor core, a reactor vessel head, a latch housing nozzle, a latch housing, a rod travel housing, a latch assembly, a drive rod assembly and a rod control cluster assembly. The latch housing is integrated with the latch housing nozzle, the rod travel housing is welded to the latch housing, and the latch assembly is connected to the rod travel housing. The latch assembly includes the drive rod assembly and the rod control cluster assembly which is attached to the drive rod assembly.





RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G21C 7/10 (2013.01) USPC - 376/219 According to International Patent Classification (IPC) or to both national classification and IPC</p>																									
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8) - G21C 7/00, 06, 08, 10, 12, 14 (2013.01) USPC -376/207, 219, 224, 226, 228</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC - G21C 7/00, 06, 08, 10, 12, 14 (2013.01)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google Scholar</p>																									
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td rowspan="2">Applicant's Admitted Prior Art. Pars. 2-13; figs. 1, 1A, 1B, 1C</td> <td>1-3, 8-10</td> </tr> <tr> <td>Y</td> <td>4-7, 11, 12</td> </tr> <tr> <td>Y</td> <td>US 4,681,731 A (SHARBAUGH) 21 July 1987 (21.07.1987) entire document</td> <td>4, 11</td> </tr> <tr> <td>Y</td> <td>US 4,082,610 A (MATTHEWS) 04 April 1978 (04.04.1978) entire document</td> <td>5, 6, 12</td> </tr> <tr> <td>Y</td> <td>US 4,666,657 A (ALTMAN) 19 May 1987 (19.05.1987) entire document</td> <td>7</td> </tr> <tr> <td>A</td> <td>US 4,314,882 A (ETIENNE et al) 09 February 1982 (09.02.1982) entire document</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 2010/0316177 A1 (STAMBAUGH et al) 16 December 2010 (16.12.2010) entire document</td> <td>1-12</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	Applicant's Admitted Prior Art. Pars. 2-13; figs. 1, 1A, 1B, 1C	1-3, 8-10	Y	4-7, 11, 12	Y	US 4,681,731 A (SHARBAUGH) 21 July 1987 (21.07.1987) entire document	4, 11	Y	US 4,082,610 A (MATTHEWS) 04 April 1978 (04.04.1978) entire document	5, 6, 12	Y	US 4,666,657 A (ALTMAN) 19 May 1987 (19.05.1987) entire document	7	A	US 4,314,882 A (ETIENNE et al) 09 February 1982 (09.02.1982) entire document	1-12	A	US 2010/0316177 A1 (STAMBAUGH et al) 16 December 2010 (16.12.2010) entire document	1-12
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<p>Date of the actual completion of the international search</p> <p>18 October 2013</p>		<p>Date of mailing of the international search report</p> <p align="center">29 OCT 2013</p>																							
<p>Name and mailing address of the ISA/US</p> <p>Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer:</p> <p align="center">Blaine R. Copenheaver</p> <p>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>																							