

**AMENDMENT TO H.R. 2454****OFFERED BY MRS. BIGGERT OF ILLINOIS**

Amend the heading of section 181 to read “**REVISIONS TO LOAN GUARANTEE AUTHORITY AND ADVANCED FUEL CYCLE INITIATIVE**” and revise the bill’s table of contents accordingly.

At the end of section 181, add the following:

1       (f) **ADVANCED FUEL CYCLE INITIATIVE.**—Sub-  
2 section (a) of section 953 of the Energy Policy Act of 2005  
3 (42 U.S.C. 16273) is amended to read as follows:  
4       “(a) **IN GENERAL.**—The Secretary, acting through  
5 the Assistant Secretary of the Office of Nuclear Energy,  
6 Science and Technology, shall conduct a science-based, ad-  
7 vanced fuel recycling technology research, development,  
8 and demonstration program (referred to in this section as  
9 the ‘program’) to address the fundamental issues and  
10 technology options related to spent nuclear fuel waste  
11 management and minimization, non-proliferation and  
12 safeguards, resource utilization, and economics of a sus-  
13 tainable commercial nuclear fuel cycle. To achieve its ob-  
14 jectives, the program shall make use of advanced modeling  
15 and simulation, validated by experiments, for systems

1 analysis, design, and development of advanced reactor and  
2 fuel cycle technologies; and complemented by supporting  
3 materials and chemistry research into separations tech-  
4 nologies, advanced transmutation fuels, superior waste  
5 forms, and structural materials under extreme conditions,  
6 including high radiation fields, high temperatures, and  
7 corrosive environments over long periods of time as rel-  
8 evant to nuclear energy applications. The program shall  
9 provide for necessary facilities, which may include utiliza-  
10 tion of existing infrastructure, for research and develop-  
11 ment, and pilot or engineering-scale demonstrations of  
12 technologies considered for potential commercial deploy-  
13 ment.”.

