

**AMENDMENT TO**  
**RULES COMMITTEE PRINT 118–10**  
**OFFERED BY MR. DONALDS OF FLORIDA**

At the end of subtitle C of title XVIII, add the following:

1 **SEC. 1859. NATIONAL STRATEGY FOR UTILIZING MICRO-**  
2 **REACTORS TO ASSIST WITH NATURAL DIS-**  
3 **ASTER RESPONSE EFFORTS.**

4 (a) IN GENERAL.—The President shall, in consulta-  
5 tion with the Administrator of the Federal Emergency  
6 Management Agency, the Secretary of Energy, the Chief  
7 of the National Guard Bureau, the Chief of Engineers of  
8 the Army Corps of Engineers, the Assistant Secretary of  
9 the Office of Nuclear Energy of the Department of En-  
10 ergy, the Under Secretary of Defense for Research and  
11 Engineering, the Chairman of the Nuclear Regulatory  
12 Commission, and the Deputy Assistant Secretary for the  
13 Office of Reactor Fleet and Advanced Reactor Deployment  
14 of the Department of Energy, develop a national strategy  
15 to utilize microreactors to assist with natural disaster re-  
16 sponse efforts.

17 (b) SUBMISSION TO CONGRESS.—Not later than 1  
18 year after the date of enactment of this Act, and every

1 2 years thereafter, the President shall submit to the ap-  
2 propriate congressional committees a comprehensive na-  
3 tional strategy developed under subsection (a).

4 (c) CONTENTS OF NATIONAL STRATEGY.—A national  
5 strategy developed under subsection (a) shall include the  
6 following:

7 (1) EVALUATION OF EXISTING DIESEL DEPLOY-  
8 MENT EFFORTS.—An assessment of the effectiveness  
9 of utilizing diesel generators to assist with natural  
10 disaster response efforts, which such assessment  
11 shall include—

12 (A) information on the current use of die-  
13 sel generators to assist with natural disaster re-  
14 sponse efforts, including—

15 (i) the prevalence of deploying diesel  
16 generators around the United States as the  
17 sole power source to assist with natural  
18 disaster response efforts;

19 (ii) the average number of diesel gen-  
20 erators deployed in natural disaster re-  
21 sponse efforts based on the type of natural  
22 disaster, the severity of the natural dis-  
23 aster, and the location of the natural dis-  
24 aster;

1 (iii) where Federal, State, and local  
2 governments store diesel generators;

3 (iv) how diesel generators are trans-  
4 ported to areas affected by a natural dis-  
5 aster;

6 (v) any logistical concerns with refuel-  
7 ing diesel generators over an extended pe-  
8 riod of time;

9 (vi) the potential to utilize accessory  
10 equipment that is traditionally connected  
11 to diesel generators to help provide elec-  
12 tricity to the area in need; and

13 (vii) any other information that is  
14 necessary to understand the role of diesel  
15 generators used to assist with natural dis-  
16 aster response efforts;

17 (B) how the effect on the environment of  
18 utilizing diesel generators to assist with natural  
19 disaster response efforts compares to the esti-  
20 mated effect on the environment of utilizing  
21 microreactors to assist with the same natural  
22 disaster response efforts; and

23 (C) the concerns to public safety when de-  
24 ploying diesel generators in natural disaster re-  
25 sponse efforts.

1           (2) GOALS, OBJECTIVES, AND PRIORITIES.—A  
2           comprehensive, research-based, and long-term dis-  
3           cussion of goals, objectives, and priorities for uti-  
4           lizing microreactors instead of diesel generators to  
5           assist with natural disaster response efforts.

6           (3) DEPARTMENT OF DEFENSE ANALYSIS.—An  
7           analysis of—

8                   (A) how the efforts of the Department of  
9                   Defense to develop microreactor technology for  
10                  operational uses could be used to inform the de-  
11                  velopment of microreactors to assist with nat-  
12                  ural disaster response efforts, including any  
13                  recommendations and additional direction that  
14                  may be necessary for such expedited deploy-  
15                  ment;

16                  (B) how the Department of Defense can  
17                  most effectively translate and implement the  
18                  lessons learned from its operations in the field  
19                  to assist with natural disaster response efforts,  
20                  including how operations in the field related to  
21                  microreactors can be used to answer broad  
22                  questions for the nuclear industry and for fu-  
23                  ture issues relating to fuel reliability, energy  
24                  supply chain issues, reducing diesel convoy cau-

1 salities, and supporting other global humani-  
2 tarian needs; and

3 (C) whether a demonstration program for  
4 microreactors is needed prior to deploying  
5 microreactors for natural disaster response ef-  
6 forts, based on the analysis provided by sub-  
7 paragraphs (A) and (B).

8 (4) RECOMMENDATIONS FOR THE NUCLEAR  
9 REGULATORY COMMISSION.—Recommendations on  
10 how the Nuclear Regulatory Commission can work  
11 with other Federal agencies to expedite—

12 (A) the approval of designs for microreac-  
13 tors; and

14 (B) issuing licenses for the utilization,  
15 transportation, and operation of microreactors  
16 in rapid deployment scenarios, such as natural  
17 disaster response efforts.

18 (5) UTILIZING FEASIBILITY STUDIES.—An  
19 analysis of available academic literature and studies,  
20 including site feasibility studies, to identify high risk  
21 areas that are prone to natural disasters that should  
22 be prioritized during emergency planning.

23 (6) STRATEGIC CONSIDERATIONS WHEN DE-  
24 PLOYING MICROREACTORS.—An assessment of var-  
25 ious strategic considerations to improve the effi-

1       ciency, timeliness, and cost-effectiveness of deploying  
2       microreactors to assist with natural disaster re-  
3       sponse efforts, including—

4               (A) whether the Department of Defense,  
5               the Federal Emergency Management Agency,  
6               or any other government entity should build,  
7               own, or operate microreactors that are used to  
8               assist with natural disaster response efforts, in-  
9               cluding whether it would be viable to lease  
10              microreactors from private industry and wheth-  
11              er it would be viable to facilitate public-private  
12              partnerships to find cost effective options to  
13              utilize microreactors for natural disaster re-  
14              sponse efforts;

15             (B) the recommended number of individ-  
16             uals charged with the usage, maintenance, and  
17             upkeep of the microreactors, including the rec-  
18             ommended qualifications, training requirements,  
19             availability requirements, and oversight respon-  
20             sibility of such individuals;

21             (C) the number of microreactors needed,  
22             initially and in the long-term, to effectively re-  
23             spond to a natural disaster based on past nat-  
24             ural disaster trends and the specific geographic  
25             location of the area;

1 (D) where microreactors used to assist  
2 with natural disaster response efforts would be  
3 stored, including information on—

4 (i) how different microreactor storage  
5 locations may affect swift and economically  
6 feasible natural disaster response efforts;

7 (ii) the feasibility of utilizing already-  
8 built facilities instead of constructing new  
9 microreactor storage facilities;

10 (iii) the cost of constructing new  
11 microreactor storage facilities;

12 (iv) how to properly store the micro-  
13 reactor when not being utilized for natural  
14 disaster response efforts; and

15 (v) potential storage locations, such  
16 as—

17 (I) the Strategic Alliance for  
18 FLEX Emergency Response locations  
19 in Memphis, Tennessee and Phoenix,  
20 Arizona; and

21 (II) Department of Defense  
22 bases;

23 (E) how to maintain a microreactor and  
24 replace, store, and dispose of fuel used by a  
25 microreactor, including whether public-private

1 partnerships may be used to assist with such  
2 maintenance, replacement, storage, and dis-  
3 posal;

4 (F) when a diesel generator will suffice in  
5 the event of a natural disaster of limited pro-  
6 portions, in comparison to utilizing microreactors  
7 to assist with natural disaster response ef-  
8 forts;

9 (G) which States and territories and pos-  
10 sessions of the United States that are prone to  
11 natural disasters, such as hurricanes, should be  
12 prioritized when initially selecting locations to  
13 deploy microreactors to assist with natural dis-  
14 aster response efforts;

15 (H) the methods, capabilities, and costs as-  
16 sociated with transporting microreactors that  
17 were or may be impacted by natural disasters,  
18 including considerations about transporting new  
19 microreactors, in addition to microreactors that  
20 have been put to use, and any regulatory or  
21 legal issues that may arise during the transpor-  
22 tation;

23 (I) any other strategic considerations that  
24 should be taken into account before deploying



1 microreactors to assist with natural disaster re-  
2 sponse efforts;

3 (J) how to integrate microreactors into ex-  
4 isting electrical grids in emergency situations,  
5 including how grid connection points, microgrid  
6 limits, site load limits, existing infrastructure,  
7 and the standard process for grid interconnec-  
8 tions may impact the integration of microreac-  
9 tors into existing electrical grid;

10 (K) whether microreactors will be suscep-  
11 tible to cyberattacks, including whether autono-  
12 mous control will impact the microreactor's  
13 cyberattack susceptibility and what systems or  
14 microreactor designs would be ideal for com-  
15 bating such cyberattacks during a natural dis-  
16 aster response effort; and

17 (L) how the weight of a microreactor, com-  
18 pared to the weight of a diesel generator, af-  
19 fects deploying microreactors and diesel genera-  
20 tors to assist with natural disaster response ef-  
21 forts.

22 (7) DEPLOYMENT CHALLENGES AND BAR-  
23 RIERS.—An assessment of—

1 (A) the challenges and barriers to deploy-  
2 ing microreactors to assist with natural disaster  
3 response efforts; and

4 (B) solutions to address each such chal-  
5 lenge and barrier.

6 (8) REVIEW OF AND RECOMMENDATIONS FOR  
7 LEGISLATION.—

8 (A) REVIEW.—A review of existing law  
9 that can be used to ease the burden of utilizing  
10 microreactors to assist with natural disaster re-  
11 sponse efforts, including the Robert T. Stafford  
12 Disaster Relief and Emergency Assistance Act  
13 (42 U.S.C. 5121 et seq.), the Energy Policy Act  
14 of 2005 (42 U.S.C. 15801 et seq.), the Atomic  
15 Energy Act of 1954 (42 U.S.C. 2011 et seq.),  
16 the Nuclear Energy Innovation and Moderniza-  
17 tion Act (42 U.S.C. 2215 note), and any other  
18 relevant law.

19 (B) RECOMMENDATIONS.—Recommendations  
20 for legislation to—

21 (i) assist with—

22 (I) deploying microreactors to as-  
23 sist with natural disaster response ef-  
24 forts;

1 (II) the maintenance and upkeep  
2 of such microreactors; and

3 (III) the initial and long-term  
4 storage of such microreactors; and

5 (ii) pay for the activities described in  
6 subclauses (I) through (III) of clause (i).

7 (9) PARTNERSHIPS TO ENHANCE NATURAL DIS-  
8 ASTER RESPONSE EFFORTS.—An assessment  
9 about—

10 (A) the current status of any collaboration  
11 between the National Guard, Federal Emer-  
12 gency Management Agency, and the Army  
13 Corps of Engineers during natural disaster re-  
14 sponse efforts;

15 (B) the specific roles of each entity speci-  
16 fied in subparagraph (A) (disaggregated, in the  
17 case of the National Guard, by State and by  
18 military department) during a natural disaster  
19 response effort, and their respective roles when  
20 participating in natural disaster response ef-  
21 forts;

22 (C) the current emergency responsibilities  
23 of the Department of Energy and the Nuclear  
24 Regulatory Commission that relate to deploying

1 microreactors during natural disaster response  
2 efforts;

3 (D) the potential opportunity to set up an  
4 annual listening group session or consortium to  
5 provide all the necessary information needed to  
6 deploy microreactors to assist with natural dis-  
7 aster response efforts and to ensure a smooth  
8 transition from the use of diesel generators to  
9 the use of microreactors to assist with natural  
10 disaster response efforts;

11 (E) how the Emergency Management As-  
12 sistance Compact, consented to by Congress in  
13 the joint resolution entitled “Joint resolution  
14 granting the consent of Congress to the Emer-  
15 gency Management Assistance Compact” (Pub-  
16 lic Law 104–321), can be utilized to allow  
17 States to allocate their unused microreactors to  
18 other States that are in need of microreactors  
19 to assist with natural disaster response efforts;  
20 and

21 (F) how to improve the collaboration be-  
22 tween Federal, State, and local government en-  
23 tities and private entities when deploying micro-  
24 reactors to assist with natural disaster response  
25 efforts.

1           (10) UTILIZING MICROREACTORS TO CHARGE  
2           ELECTRIC VEHICLES.—Recommendations on how to  
3           utilize microreactors as charging stations for electric  
4           vehicles in the event of a mass evacuation resulting  
5           from a natural disaster, including recommendations  
6           on—

7                   (A) how to deploy microreactors to charge  
8                   electric vehicles before an evacuation;

9                   (B) the primary transportation corridors  
10                  that would be used for such a mass evacuation;

11                  (C) how many microreactors would be  
12                  needed to charge electric vehicles during such a  
13                  mass evacuation, based on the size and popu-  
14                  lation of the State in which the mass evacuation  
15                  occurs;

16                  (D) the best placement of microreactors  
17                  throughout the primary transportation corridors  
18                  to ensure a smooth electric vehicle charging  
19                  process and subsequent evacuation;

20                  (E) any potential public-private partner-  
21                  ships that would be useful in utilizing micro-  
22                  reactors to charge electric vehicles during a  
23                  mass evacuation, including an estimate of the  
24                  costs that would be associated with establishing  
25                  these partnerships;

1 (F) how to—

2 (i) transport microreactors to mass  
3 evacuation locations along primary trans-  
4 portation corridors for purposes of charg-  
5 ing electric vehicles; and

6 (ii) pay for such transportation; and

7 (G) any other topic related to subpara-  
8 graphs (A) through (F).

9 (11) DEPLOYING MICROREACTORS TO UNITED  
10 STATES TERRITORIES AND POSSESSIONS.—Rec-  
11 ommendations on deploying microreactors to terri-  
12 tories and possessions of the United States to assist  
13 with natural disaster response efforts.

14 (12) USING MILITARY EQUIPMENT WITH NU-  
15 CLEAR CAPABILITIES.—Recommendations on how to,  
16 in the event of a natural disaster and when the de-  
17 ployment of a microreactor is not timely or ideal for  
18 the circumstance, deploy military equipment of the  
19 United States with nuclear capabilities, such as nu-  
20 clear aircraft carriers and nuclear submarines, to  
21 provide temporary electricity to an area severely im-  
22 pacted by a natural disaster.

23 (13) BUDGET PRIORITIES.—A multiyear budget  
24 plan that identifies the necessary resources to suc-  
25 cessfully carry out the recommendations and imple-

1       ment any lessons learned from the assessments and  
2       other analysis under this subsection.

3           (14) TECHNOLOGY ENHANCEMENTS.—An anal-  
4       ysis of current and developing ways to leverage exist-  
5       ing and innovative technology to improve the effec-  
6       tiveness of efforts to deploy microreactors to assist  
7       with natural disaster response efforts.

8           (15) USING INNOVATIVE TOOLS TO PREDICT  
9       NATURAL DISASTERS.—A description of how to uti-  
10      lize innovative technology, such as artificial intel-  
11      ligence and predictive meteorological tools, to pre-  
12      pare for the utilization of microreactors before a  
13      natural disaster.

14          (16) FLOATING NUCLEAR BARGES.—An assess-  
15      ment of how floating nuclear barges compare to  
16      using portable microreactors, including—

17           (A) the advantages and disadvantages of  
18      using a portable microreactor compared to a  
19      floating nuclear barge; and

20           (B) an identification of scenarios during  
21      which a floating nuclear barge would be pre-  
22      ferred over a portable microreactor.

23      (d) DEFINITIONS.—In this section:

1           (1) APPROPRIATE CONGRESSIONAL COMMIT-  
2           TEES.—The term “appropriate congressional com-  
3           mittees” means—

4                   (A) the Committee on Energy and Com-  
5                   merce, the Committee on Armed Services, the  
6                   Committee on Oversight and Accountability,  
7                   and the Committee on Science, Space, and  
8                   Technology of the House of Representatives;  
9                   and

10                   (B) the Committee on Energy and Natural  
11                   Resources, the Committee on Armed Services,  
12                   the Committee on Environment and Public  
13                   Works, and the Committee on Commerce,  
14                   Science, and Transportation of the Senate.

15           (2) LOCAL GOVERNMENT.—The term “local  
16           government” has the meaning given such term in  
17           section 102 of the Robert T. Stafford Disaster Relief  
18           and Emergency Assistance Act (42 U.S.C. 5122).

19           (3) MICROREACTOR.—The term “microreactor”  
20           means a nuclear reactor, including a portable nu-  
21           clear reactor, that has an electricity generating ca-  
22           pacity of not more than 20 megawatts of thermal  
23           energy.

24           (4) NATURAL DISASTER.—The term “natural  
25           disaster” has the meaning given the term “Major



1 disaster” in section 102 of the Robert T. Stafford  
2 Disaster Relief and Emergency Assistance Act (42  
3 U.S.C. 5122), except that the term “natural dis-  
4 aster” does not include a wildfire.

5 (5) NATURAL DISASTER RESPONSE EFFORT.—  
6 The term “natural disaster response effort” means  
7 a circumstance in which a State or local government  
8 requests assistance under the Robert T. Stafford  
9 Disaster Relief and Emergency Assistance Act (42  
10 U.S.C. 5121 et seq.), including assistance to address  
11 the loss of primary electrical capacity as a result of  
12 a natural disaster.

13 (6) STATE.—The term “State” means a State  
14 of the United States and the District of Columbia.

