

118TH CONGRESS
1ST SESSION

H. R. 4678

To direct the Chairman of the Nuclear Regulatory Commission, the Administrator of the Federal Aviation Administration, and the Administrator of the Federal Emergency Management Agency to establish procedures for the deployment of microreactors at airports, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JULY 17, 2023

Mr. DONALDS introduced the following bill; which was referred to the Committee on Transportation and Infrastructure, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To direct the Chairman of the Nuclear Regulatory Commission, the Administrator of the Federal Aviation Administration, and the Administrator of the Federal Emergency Management Agency to establish procedures for the deployment of microreactors at airports, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Provide Logistical Aid
3 to airports via advanced Nuclear Energy Act” or the
4 “PLANE Act”.

5 **SEC. 2. FINDINGS.**

6 Congress finds the following:

7 (1) Airports generally have diesel generators on
8 site as a backup power source in the event a natural
9 disaster disrupts the primary power source of the
10 airport.

11 (2) Backup diesel generators are subject to po-
12 tential fuel supply chain disruptions, especially in
13 the event of a natural disaster, which may negatively
14 impact public safety and may severely disrupt the
15 airport’s operating procedures if the backup diesel
16 generators aren’t available during a primary power
17 source disruption event.

18 (3) Generally speaking, airports store enough
19 diesel fuel on-site to power their backup diesel gen-
20 erators for approximately 72 hours after the primary
21 power source disruption event occurs.

22 (4) Electricity is fundamental to aviation oper-
23 ations and the operation of many essential systems,
24 equipment, technology, and tools of the airport,
25 therefore maintaining a sufficient backup power ca-
26 pacity should be a priority.

1 (5) Back-up power sources, such as diesel gen-
2 erators or microreactors, are critical to an airport’s
3 operational continuity and may drive key airport
4 functions in the event of a primary power source dis-
5 ruption event stemming from a natural disaster, in-
6 cluding lights critical to illuminating runways, all
7 electronics within the airport, airplane refueling sta-
8 tions, ticketing, signage, security checkpoints, retail
9 and commercial concessions, and elevators and esca-
10 lators.

11 (6) Microreactors have the inherent benefit of
12 avoiding diesel-related supply chain constraints, and
13 have the potential to provide consistent, reliable, and
14 clean electricity to power the airport during a pri-
15 mary power source disruption event.

16 **SEC. 3. SENSE OF CONGRESS.**

17 It is the sense of Congress that—

18 (1) Federal Aviation Administration-certified
19 airports should consider utilizing microreactors as
20 an alternative to diesel backup generators in the
21 event of a primary power source disruption;

22 (2) the Federal Government should initiate dis-
23 cussions to deploy microreactors to respond to a pri-
24 mary power source disruption event stemming from
25 a natural disaster; and

1 (3) the Nuclear Regulatory Commission should
2 collaborate with the Federal Aviation Administration
3 and the Federal Emergency Management Agency to
4 consider expedited licensing of microreactors to de-
5 ploy in the event of primary power source disrup-
6 tion.

7 **SEC. 4. MICROREACTOR DEPLOYMENT AT AIRPORTS.**

8 (a) IN GENERAL.—Not later than 270 days after the
9 date of enactment of this Act, the Chairman of the Nu-
10 clear Regulatory Commission, the Administrator of the
11 Federal Aviation Administration, the Administrator of the
12 Federal Emergency Management Agency, and the Sec-
13 retary of Energy, or the designees thereof, shall collabo-
14 rate to establish procedures to, as soon as practicable, de-
15 ploy microreactors at airports to respond to a primary
16 power source disruption event stemming from a natural
17 disaster.

18 (b) CONSIDERATIONS.—In establishing procedures
19 under subsection (a), the Chairman of the Nuclear Regu-
20 latory Commission, the Administrator of the Federal Avia-
21 tion Administration, the Administrator of the Federal
22 Emergency Management Agency, and the Secretary of
23 Energy shall consider, if the Chairman, Administrators,
24 and Secretary determine appropriate—

1 (1) expediting the Nuclear Regulatory Commis-
2 sion licensing process associated with deploying
3 microreactors in the event of a natural disaster;

4 (2) pre-deployment strategies of microreactors,
5 including—

6 (A) where airports currently store backup
7 diesel generators and an overview of the proc-
8 ess, including pros and cons, of utilizing backup
9 diesel generators;

10 (B) the inherent benefits of utilizing micro-
11 reactors instead of a backup diesel generator
12 and when a backup diesel generator will suffice;

13 (C) how a microreactor would be trans-
14 ported to an airport and transportation-related
15 processes associated with deploying the micro-
16 reactor via plane, boat, rail, or truck, depending
17 on the location of the airport;

18 (D) any associated environmental consider-
19 ations that would have to be alleviated to do so;

20 (E) how to integrate microreactors into ex-
21 isting electrical grids in primary power source
22 disruption events, including grid connection
23 points, site load limits, and existing infrastruc-
24 ture; and

1 (F) the timeliness of deploying the micro-
2 reactor, including—

3 (i) how long it would take to deploy
4 the microreactor;

5 (ii) how long it would take to set up
6 the microreactor to get the microreactor
7 operational; and

8 (iii) how long it would take to dis-
9 connect the microreactor after the oper-
10 ational use;

11 (3) deployment strategies of microreactors, in-
12 cluding—

13 (A) operating the microreactor in the de-
14 ployment event, including considerations relat-
15 ing to—

16 (i) personnel and labor and any asso-
17 ciated training; and

18 (ii) qualifications and considerations
19 for who should be responsible for oversight
20 of such personnel described in clause (i)
21 and the deployment of the microreactor;

22 (B) whether the operation of a micro-
23 reactor would inhibit normal airport operations,
24 in the event of a primary power source distribu-
25 tion, in comparison to a diesel generator; and

1 (C) what facilities the microreactor would
2 provide electricity to;

3 (4) post-deployment strategies of microreactors,
4 including potential public-private partnerships that
5 could be used to assist with maintenance, replace-
6 ment, storage, and disposal; and

7 (5) other considerations, including—

8 (A) what entity would own the micro-
9 reactor and any contractual agreements or
10 leases necessary for the operation of the reac-
11 tor, including potential contracts with local util-
12 ities, the armed forces, or industry stakeholders
13 to deliver the microreactor when necessary;

14 (B) how the Nuclear Regulatory Commis-
15 sion can leverage ongoing and existing licensing
16 procedures to maximize the effectiveness and ef-
17 ficiency of establishing procedures to deploy
18 microreactors at airports; and

19 (C) any other considerations that would be
20 necessary to carry out the objective of this Act.

21 (c) REPORT.—Not later than 120 days after a deter-
22 mination on appropriateness of the considerations de-
23 scribed in subsection (b) is made, the Chairman of the
24 Nuclear Regulatory Commission, the Administrator of the
25 Federal Aviation Administration, the Administrator of the

1 Federal Emergency Management Agency, and the Sec-
2 retary of Energy shall submit to the Committee on Energy
3 and Commerce, the Committee on Transportation and In-
4 frastructure, and the Committee on Homeland Security of
5 the House of Representatives and the Committee on En-
6 ergy and Natural Resources and the Committee on Envi-
7 ronment and Public Works of the Senate a report out-
8 lining the reasoning, findings, and any recommended pro-
9 cedures found in making such considerations.

10 (d) FAA GUIDANCE UPDATE.—Not later than 180
11 days after the procedures under subsection (b) are final-
12 ized, the Administrator of the Federal Aviation Adminis-
13 tration shall update guidance from the Administration to
14 consider the use of microreactors in airport emergency
15 plans.

16 (e) AIRPORT EMERGENCY PLAN UPDATE.—Not later
17 than 270 days after the procedures under subsection (b)
18 are finalized, the Administrator of the Federal Aviation
19 Administration shall issue such regulations as are nec-
20 essary to update section 139.325 of title 14, Code of Fed-
21 eral Regulations, to encourage certified airports to con-
22 sider utilizing microreactors to provide backup power in
23 the case of a primary power source disruption event as
24 a result of an incident under subsection (b) of such sec-
25 tion.

1 (f) DEFINITIONS.—In this Act:

2 (1) MICROREACTOR.—The term “microreactor”
3 means an advanced nuclear reactor (as such term is
4 defined in section 3 of the Nuclear Energy Innova-
5 tion and Modernization Act (42 U.S.C. 2215 note)),
6 including a portable nuclear reactor, that has an
7 electricity generating capacity of not more than 20
8 megawatts of electricity and not more than 100
9 megawatts of thermal energy.

10 (2) NATURAL DISASTER.—The term “natural
11 disaster” has the meaning given the term “major
12 disaster” in section 102 of the Robert T. Stafford
13 Disaster Relief and Emergency Assistance Act (42
14 U.S.C. 5122).

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