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H.217

Introduced by Representatives Burt of Cabot, Branagan of Georgia, Coffin of  
Cavendish, Cooper of Pownal, Dobrovich of Williamstown,  
Goslant of Northfield, Harvey of Castleton, Higley of Lowell,  
Lipsky of Stowe, Morgan, L. of Milton, Nelson of Derby, North  
of Ferrisburgh, O'Brien of Tunbridge, Powers of Waterford,  
Pritchard of Pawlet, Southworth of Walden, Sweeney of  
Shelburne, Tagliavia of Corinth, Wells of Brownington, and  
Winter of Ludlow

Referred to Committee on

Date:

Subject: Conservation and development; air pollution; geoengineering

Statement of purpose of bill as introduced: This bill proposes to prohibit the  
use of solar radiation modification, cloud seeding, geoengineering, and other  
polluting atmospheric experiments and interventions. It would require reports  
of violations to be made to the Vermont State Police, sheriffs, or deputized  
Vermont citizens to enforce the provisions.

An act relating to prohibiting geoengineering

1 It is hereby enacted by the General Assembly of the State of Vermont:

2 Sec. 1. SHORT TITLE

3 This act may be cited as the “Vermont Clean Air Preservation Act.”

4 Sec. 2. 10 V.S.A. chapter 23A is added to read:

5 CHAPTER 23A. GEOENGINEERING

6 § 587. DEFINITIONS

7 As used in this chapter:

8 (1) “Atmospheric activity” means any polluting experiment or  
9 intervention conducted by any person, artificial intelligence, or any  
10 combination thereof, that occurs in the atmosphere and may have harmful  
11 consequences upon health, the environment, or agriculture.

12 (2) “Chaff” means aluminum-coated silica glass fibers typically  
13 dispersed in bundles containing 5,000,000 to 100,000,000 inhalable fibers,  
14 which fall to the ground in about one day, or for nano-chaff, years, and then  
15 fall and break apart. Perfluoroalkyl and polyfluoroalkyl substances (PFAS),  
16 known also as “forever chemicals,” are an ingredient in chaff.

17 (3) “Cloud seeding” is a type of weather engineering or experimentation  
18 that may change the amount or type of precipitation by dispersing chemicals or  
19 chemical compounds such as dry ice (CO<sub>2</sub>), silver iodide (AgI), or Tri-methyl  
20 aluminum (TMA) into the atmosphere by means of aircraft or ground  
21 generators.

1           (4) “Entity” means any of the following: individual; trust; firm; joint  
2           stock company; corporation, including a quasigovernmental corporation;  
3           nongovernmental organization; public or private partnership; association;  
4           syndicate; municipality or municipal agency; program; fire district; club;  
5           nonprofit agency; commission; university; college or academic institution;  
6           State department or agency; the federal government or any interstate or  
7           international governance or instrumentality thereof, including foreign,  
8           domestic, and mercenary armed services or region within the United States;  
9           and artificial intelligence.

10           (5) “Geoengineering” means the intentional large-scale alteration or  
11           manipulation of the environment involving the release of aerosols, chemicals,  
12           chemical compounds, electromagnetic radiation, or other physical agents that  
13           increase air pollution and effect changes to the earth’s atmosphere or surface,  
14           inclusive of solar radiation modification, sunlight reflection methods,  
15           stratospheric aerosol injection (SAI), cirrus cloud thinning (CCT), marine  
16           cloud brightening (MCB), or cloud seeding.

17           (6) “Hazard” means a process, substance, or physical agent that by its  
18           nature is harmful to living organisms generally or to property or another  
19           interest of value.

20           (7) “Intervention” means the act of interfering with weather processes or  
21           altering atmospheric or environmental conditions or releasing pollutants by

1 methods including SRM, SAI, MCB, CCT, weather modification, cloud  
2 seeding, or outdoor pollution dispersion modeling.

3 (8) “Physical agent” means an agent, other than a substance, including  
4 radiofrequency/microwave (RF/MW) and other electromagnetic radiation and  
5 fields, barometric pressure, temperature, gravity, kinetic or de facto weaponry,  
6 mechanical vibration, and sound.

7 (9) “Pollutant” means any aerosol; biologic; biologic or genetically  
8 modified agent; perfluoroalkyl and polyfluoroalkyl substances (PFAS) known  
9 also as “forever chemicals”; chaff; substance, including smoke, vapor, soot,  
10 fumes, acid, alkalis, chemicals, chemical compounds, and smart dust;  
11 artificially produced electric fields; magnetic fields, electromagnetic fields,  
12 electromagnetic pulse (EMP), sound waves, sound pollution, light pollution,  
13 and microwaves; and all artificially produced ionizing or nonionizing radiation  
14 or waste.

15 (10) “Pollution” means the discharge, dispersal, deposition, injection,  
16 release, seepage, migration, or escape of pollutants.

17 (11) “Release” means any activity that results in the issuance of  
18 pollutants such as the emitting, transmitting, discharging, or injecting of one or  
19 more nuclear; biological; biological, chemical, or physical agents into the  
20 ambient atmosphere, whether once, intermittently, or continuously.

1           (12) “Solar radiation modification,” “sunlight reflection methods,” or  
2           “SRM” means an experiment in the earth’s climatic system involving the  
3           release of pollutants that reduces the amount of sunlight reaching the earth’s  
4           surface. Scientific dimensions of SRM include the use of interoperable  
5           ground-based, airborne, and space-based facilities.

6           (13) “State Guard” means the entity established pursuant to 20 V.S.A.  
7           chapter 61.

8           (14) “Weather engineering” means the deliberate manipulation or  
9           alteration of the environment for the purpose of changing the weather or  
10           climate by artificial means, through interventions involving the release of  
11           pollutants into the atmosphere via cloud seeding for small-scale, large-scale,  
12           and global-scale alteration of the environment.

13           (15) “Weather modification” means changing, controlling, or interfering  
14           with or attempting to change, control, or interfere with the natural development  
15           of cloud forms, precipitation, barometric pressure, temperature, conductivity,  
16           or other electromagnetic or sonic characteristics of the atmosphere.

17           § 588. PROHIBITION ON GEOENGINEERING

18           (a) No person or entity shall engage in solar radiation modification (SRM)  
19           or any polluting atmospheric intervention in Vermont, including using an  
20           aircraft, a balloon, a space-based platform, a ground generator, or an  
21           interoperable ground-based facility.

1       (b) The Vermont State Police or a sheriff shall immediately issue a cease-  
2       and-desist order when an unlawful polluting atmospheric intervention is  
3       suspected. The cease-and-desist order under this section shall have the weight  
4       of a court order and any violation shall be punished in accordance with section  
5       589a of this chapter.

6       (c) Government and armed forces projects shall meet all the requirements  
7       of this chapter. If an activity deemed a hazard pursuant to this chapter has  
8       been approved, explicitly or implicitly, by the federal government, the State  
9       Police or a sheriff shall issue a notice to the appropriate federal agency that the  
10       activity cannot lawfully be carried out within or over the State of Vermont.

11       (d) This chapter shall be implemented by the State Police and sheriffs, who  
12       shall determine whether violations have occurred and, if deemed necessary,  
13       shall refer potentially prohibited activity to the Vermont Air National Guard or  
14       State Guard. The State Police and the Vermont Air National Guard shall  
15       develop a policy to determine the process for referring violations to the  
16       National Guard and what the enforcement procedure is.

17       § 589. COMMUNICATIONS INFRASTRUCTURE

18       (a) Communications facilities shall be subject to evaluation by an  
19       independent licensed radiofrequency (RF) engineer paid for by the facility  
20       owner because SRM includes the use of interoperable ground-based, airborne,  
21       and space-based facilities and heightened radiation levels.

1       (b) The RF engineer shall provide findings in a report to be submitted to  
2       the local sheriff. The radiation signal strength metered at the reported location  
3       is not to exceed -75 dBm (decibel-milliwatt) for any frequency or channel band  
4       specified by a transmitting entity's FCC transmission license; or, maximum  
5       power output limit from all frequencies or antennas from a wireless facility is  
6       not to exceed 0.1 watt of effective radiated power (ERP) so as to provide -75  
7       dBm signal strength at one-half mile, or five bars on a cell phone. If signal  
8       strength metered by the RF engineer is in excess of -75 dBm, the facility  
9       operator has 30 days to achieve compliance without disruption to performance  
10       of Vermonters' personal wireless services. The State Police shall perform  
11       random testing from time to time to ensure facility compliance with this  
12       chapter. Failure to comply will result in a fine of not more than \$50,000.00 per  
13       day for each day the facility is out of compliance. Deliberate falsification or  
14       altering of information related to this section shall constitute a violation of this  
15       chapter. All public and private entities operating in the state shall comply with  
16       the requirements of this section.

17       § 589a. PENALTIES AND ENFORCEMENT

18       (a) An entity or individual who engages in a polluting atmospheric  
19       intervention or who uses an unmarked or unidentified aircraft or other vehicle  
20       or facility to carry out SRM, SAI, geoengineering, weather modification,  
21       cloud-seeding, or any other polluting atmospheric intervention:

1           (1) has committed a felony and shall pay a fine of not more than  
2           \$50,000.00 or be imprisoned for not more than two years, or both;

3           (2) shall be guilty of a separate offense for each day during which  
4           violative activity has been conducted, repeated, or continued; and

5           (3) shall be subject to the penalties of any other applicable pollution  
6           laws.

7           (b) Each sheriff shall deputize and train one or more Vermont citizens to  
8           help enforce the provisions of this chapter. The State Police, sheriff, or a  
9           deputized Vermont citizen shall investigate reports of SRM, polluting  
10           atmospheric interventions, or radiation to ensure compliance with the  
11           requirements of this chapter.

12           Sec. 3. EFFECTIVE DATE

13           This act shall take effect on passage.