

2019 -- H 5992

=====
LC002175
=====

STATE OF RHODE ISLAND

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 2019

—————
A N A C T

RELATING TO HEALTH AND SAFETY - THE GEOENGINEERING ACT

Introduced By: Representatives Price, Bennett, Quattrocchi, and McNamara

Date Introduced: April 11, 2019

Referred To: House Environment and Natural Resources

It is enacted by the General Assembly as follows:

1 SECTION 1. Title 23 of the General Laws entitled "HEALTH AND SAFETY" is hereby
2 amended by adding thereto the following chapter:

3 CHAPTER 95

4 THE GEOENGINEERING ACT

5 **23-95-1. Short title.**

6 This chapter shall be known and may be cited as "The Geoengineering Act."

7 **23-95-2. Legislative intent.**

8 (a) To preserve the safe, peaceful uses of Rhode Island's atmosphere for people and the
9 environment, by regulating and prohibiting those geoengineering activities that are harmful.

10 (b) "Geoengineering" is defined as the intentional manipulation of the environment,
11 involving nuclear, biological, chemical, electromagnetic and other physical-agent activities that
12 effect changes to the earth's atmosphere or surface.

13 (c) The general assembly finds that geoengineering encompasses many technologies and
14 methods involving hazardous activities that can harm human health and safety, the environment,
15 aviation, and the economy of the state of Rhode Island.

16 (d) It is therefore the intention of the general assembly to regulate all geoengineering
17 activities as further set forth by the terms and provisions of this chapter.

18 **23-95-3. Findings of fact.**

19 (a) Background. Earthly life, or "Bios", is a system that can be impaired and broken by

1 perturbations such as human activities that are xenobiotic, (i.e., foreign to life). The extant
2 damage from pollutants and other harmful human activities is incalculable, and the state of earth's
3 biotic system is widely reported as catastrophic and in urgent need of protective action.

4 (b) Scope of geoengineering. Inclusive of solar radiation management (SRM), carbon
5 dioxide removal (CDR), and other technologies, geoengineering activities are diverse, varying
6 greatly in their characteristics and consequences. Geoengineering may involve ground-based,
7 under-water, or atmosphere-based activities, including, without limitation, cloud-seeding and
8 other means of deployment of hazards by aircraft, rockets, unmanned aerial vehicles (UAVs) and
9 drones, large balloons, wireless infrastructures, ships or submarines.

10 (c) All geoengineering activities require state licensing.

11 (d) SRM activities include, but are not limited to, Stratospheric Aerosol Injection (SAI)
12 such as:

13 (1) Solar shields or atmospheric sunscreens: Reflective materials are injected into the
14 stratosphere with the intention of increasing albedo. These include, but are not limited to, sulfur
15 dioxide (SO₂), sulfuric acid (H₂SO₄), and aluminum oxide (Al₂O₃).

16 (i) Per the journal Geophysical Research Letters, SO₂ injected into the atmosphere
17 slowly converts to H₂SO₄ and produces the adverse effects of ozone layer reduction and radiative
18 heating of the lower stratosphere through reflection and absorption of terrestrial heat. The Federal
19 Clean Air Act is focused on reducing SO₂ and H₂SO₄, the primary components of acid rain. Per
20 the Federal Environmental Protection Agency (EPA), SO₂ penetrates deeply into sensitive parts
21 of the lungs and is harmful to the environment.

22 (ii) Per the National Institutes of Health (NIH), Al₂O₃ causes respiratory tract, eye, and
23 skin irritation as well as organ damage and bone abnormalities, particularly with repeated or
24 prolonged exposure; and it may be neurotoxic if absorbed into the brain. Section 313 of the
25 Federal Emergency Planning and Community Right-to-Know Act (EPCRA) requires anyone
26 manufacturing, processing, or using Al₂O₃ to report this activity to the Environmental Protection
27 Agency (EPA). Any aircraft containing a hazardous substance is considered by Section 103 of the
28 Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
29 and by Section 304 of EPCRA as a "facility" required to report any such release into the
30 environment. Whether users deploying substances at stratospheric altitudes do presently comply
31 is unlikely. Following stratospheric release, sulfuric and aluminum oxide particulates fall into the
32 troposphere, blocking sunlight from reaching earth's surface, after which they rain down as acidic
33 pollution, harming terrestrial and aquatic life. Acidic precipitation further mobilizes aluminum
34 from both natural sources and the direct anthropogenic releases of aluminum compounds in

1 geoengineering and industrial processes. Specifically, environmental acidification mobilizes
2 aluminum from land into aquatic environments. Acid rain dissolves and washes away the
3 nutrients and minerals in the soil which help plants to grow, reduces photosynthesis by removing
4 the waxy cover on leaves, and ultimately kills the aquatic life upon which humans depend.

5 (2) Carbon black or black carbon releases: Deliberate, atmospheric releases of soot are
6 used to produce artificial weather events, increasing albedo and reflecting sunlight;

7 (3) Rocket emissions: These include, but are not limited to, black carbon and alumina
8 particles in addition to water vapor, a "greenhouse gas", blocking sunlight and reflecting
9 terrestrial heat;

10 (4) Cloud brightening: Sodium chloride (NaCl) or sea salt, seawater, nitric acid (HNO₃),
11 or other materials injected into clouds make the clouds more reflective, after which the salt and
12 other materials rain out over land areas and freshwater supplies;

13 (5) Salt flare rockets: Fired into clouds, these rockets trigger rain downpours containing
14 salt, which contaminates freshwater supplies, desiccates surfaces, and makes the atmosphere
15 more conductive;

16 (6) Cloud-seeding releases of silver iodide (AgI) or solid dry ice, or both, which is carbon
17 dioxide (CO₂), the latter increasing levels intended to be decreased;

18 (7) Cloud cover production: Aerial releases of water vapor, a "greenhouse gas", result in
19 manmade cloud cover, trapping terrestrial heat;

20 (8) Reflective space mesh mirrors: Wire-mesh mirrors, deployed in space, reduce the
21 amount of direct sunlight reaching earth's surface over small or large areas, depending on their
22 size;

23 (9) Space sunshades or sunshields: Huge, parasol-like devices reduce the amount of
24 direct sunlight reaching earth's surface;

25 (10) Planetary sunshades: These largest of SRM operations use particulates to cover, over
26 time, the whole earth, stripping the ozone layer by as much as seventy-six percent (76%) and
27 reducing the amount of direct sunlight reaching earth's surface;

28 (11) Artificial ionosphere: A sustained, high-density plasma cloud is produced in earth's
29 upper atmosphere; and

30 (12) Large helium balloons which release atmospheric contaminants such as SO₂.

31 (d) CDR, involving the sequestration, capture, or removal of carbon dioxide consisting
32 of:

33 (1) Land-based and ocean-based carbon sequestration, also called CO₂ geo-sequestration;

34 (2) Carbon capture or removal, which processes involve capturing what is considered

1 "waste" CO2 and depositing it at storage sites:

2 (3) Biochar, requiring burning huge amounts of biomass such as trees, crops, and solid

3 waste;

4 (4) Ocean fertilization (OF) by dumping iron filings, lime, and urea in order to sequester

5 CO2, producing detrimental artificial algae blooms and reducing oxygen and needed nutrients;

6 (5) Genetically modified CO2-eating, plastic trees; and

7 (6) Additional geoengineering activities requiring state licensing include, but are not

8 limited to:

9 (i) Ocean-cooling pipes, which, per recent reports, would exacerbate oceanic warming;

10 (ii) Re-icing or cooling the arctic and other areas through artificial means;

11 (iii) Ground-based cloud-nucleating generators;

12 (iv) Weather modification involving the release of sea salt, silver iodide, barium or other

13 particulates to enhance precipitation (rain or snow) in one area, while reducing precipitation in

14 other areas;

15 (v) Glacier-reflecting blanket deployment, with vast polar areas to be covered with soot;

16 (vi) Nitrogen removal and sequestration;

17 (vii) Evaporation alteration, by spreading of various kinds of film upon large bodies of

18 water;

19 (viii) Water vapor generation using nuclear fission or fusion, contaminating water

20 sources;

21 (ix) Chaff releases, which involve the dispersal of bundles of millions of aluminum-

22 coated silica fibers of lengths one and five-tenths centimeters (1.5cm), two and five-tenths

23 centimeters (2.5cm), and five centimeters (5cm), which spread over hundreds of miles, remain in

24 the air for up to a day, and then fall and break apart purposed to confuse foreign radars and

25 satellite vision. Chaff causes power outages and interferes with air-traffic control, weather

26 forecasting and long-term climate research;

27 (x) Deployment of radiofrequency/microwave (RF/MW) radiation, or low frequency

28 electric or magnetic fields, other than for safety and aviation communications, by large

29 infrastructures, single antennas, high-densification antennas, satellites, or other means; and

30 (xi) Intense mechanical vibration or noise other than from an aircraft's propulsion or other

31 physical agents, such as intentional changes to ambient temperature or barometric pressure, or

32 excessive light at night, for any purpose, or inadvertently from other activities.

33 (e) Aircraft geoengineering activities include those carried out from any type of aerial

34 vehicle, rocket, drone or balloon, which involve the release or deployment of any nuclear

1 radiation; any biologic or trans-biologic agent; any chemical substance or mixture including any
2 chemical substances added to the aircraft's fuel emissions; cloud seeding; any electromagnetic
3 radiation other than radar or radio communications necessary for the aircraft's safety; or any other
4 harmful physical agent, shall be subject to regulation including the licensing process, pursuant to
5 this chapter.

6 (f) Consequences. Documented problems arising from geoengineering activities include,
7 but are not limited to:

8 (1) Contamination of air, water, and soil, as particulates fall to earth's surface, and other
9 contamination, including by vapors and physical agents, at or below ground or sea level;

10 (2) Degradation of human, animal, and plant health and productivity, when people and
11 other living organisms are exposed to geoengineering particulates, vapors, and other
12 contaminants, often in violation of the National Environmental Protection Act of 1970 (NEPA);

13 (3) The acceleration of biodiversity and species losses, especially the loss of endangered
14 and threatened species as identified under the Federal Endangered Species Act of 1973 (ESA),
15 each of which species has intrinsic as well as human-resource value, and each of which cannot
16 bear, per ESA, further habitat modification or degradation;

17 (4) Extreme weather, with unprecedented temperatures, fires, wind speeds, precipitation,
18 electrical storms, hurricanes and tornados, resulting in large-scale loss of life, structures and
19 infrastructures; and severe reduction in state, regional, and global food production;

20 (5) Changes in micro-climates, local weather, and large-scale climates within short time
21 periods, with increased and cascading climate effects and political ramifications;

22 (6) Global dimming, which decreases vitamin D (calciferol) in humans and animals,
23 causing malabsorption of calcium, magnesium and phosphate; and which reduces photosynthesis,
24 with losses in agriculture and productivity;

25 (7) Less direct sunlight reaching earth's surface, with fewer winter freezes and higher
26 humidity, resulting in increased molds, mildews, fungi, and other pathogens and pests that
27 develop from such conditions;

28 (8) Increases in acid rain loads from the airborne injection or releases of sulfur and
29 aluminum oxide, with human, animal, plant, and water-resource degradation;

30 (9) Changes in distribution patterns and chemical contents of rainfall, resulting in floods,
31 droughts, and the potential for international political conflicts therefrom;

32 (10) Algal blooms, with adverse impacts upon human health, aquatic systems, and
33 economies;

34 (11) The near impossibility of restoring de-valued natural resources, with the

- 1 undermining of state-funded conservation programs:
- 2 (12) Increased ultraviolet radiation (UV, including UVA, UVB, and UVC), at earth's
3 surface: UV is strongly absorbed by organic materials such as living tissues, with UVC's high
4 energy and small wavelength particularly capable of destroying DNA and reproduction;
- 5 (13) Increased combustibility of earth's terrestrial surfaces, by means of fallen
6 particulates with increased incidence of fires;
- 7 (14) Significant increases in ambient mechanical vibration and noise pollution, leading
8 to, without limitation, increased incidence of nervous system and cardiac irregularities;
- 9 (15) Increased metals content in surface-dwelling and aquatic organisms, producing
10 increased bodily electrical conductivity, with more susceptibilities and damages therefrom;
- 11 (16) Extreme harm to vulnerable human subpopulations and to the more vulnerable
12 species;
- 13 (17) Significant changes to earth's atmosphere's electric, magnetic, and electromagnetic
14 properties through the induction of high-intensity RF/MW radiation, resulting in extreme and less
15 predictable weather, the desiccation of terrestrial animals and plants, and the reduction of those
16 animal and insect populations dependent for navigation upon electromagnetism;
- 17 (18) Visibility impairment and clutter, reducing aviation safety and accelerating the
18 incidence of collision with "space-junk" or "space-debris" particulate matter and balloons;
- 19 (19) The delay by decades of the ozone layer's potential recovery;
- 20 (20) The financial burden that airborne, reflective, metallic particulates such as chaff
21 must be repeatedly replenished by aircraft release, since their atmospheric time is limited;
- 22 (21) Further financial burden, since, per the Pacific Northwest National Laboratory, the
23 amount of injected material is much less effective in polluted clouds, requiring the injection of
24 increased amounts of material for cloud-brightening;
- 25 (22) Economic losses to various sectors of society and to the state itself, resulting from,
26 without limitation, human health damages, with increased and earlier health care needs, and
27 heightened suffering for those injured or sensitized by prior hazardous exposures, contaminated
28 soils and water supplies, loss of pollinators such as bees and birds, lower crop yields, dead and
29 dying forests, loss of habitats, decline of fisheries, rising pollution cleanup costs, and less solar
30 power production from lack of sunlight reaching earth's surface; and
- 31 (23) The potential and ease for enemies, foreign and domestic, to cause harm
32 intentionally.
- 33 (g) Response to federal actions. Shirking duties to protect national security, safety, health
34 and the environment, the federal government acted by various means to cause harm through

1 geoengineering, thereby establishing, through the Tenth Amendment of the United States
2 Constitution, the necessity, authority, and obligation of all the states to override destructive
3 federal acts and provisions, correct the federal government, cancel plans for geoengineering and
4 high-densification of antennas, and halt any such contract presently in place.

5 (h) In view of these facts, the general assembly declares that geoengineering activities
6 must be strictly regulated by the state through a licensing process, within which an environmental
7 and economic impact report (EEIR) from the department of environmental management (DEM),
8 and preliminary, detailed impact reports (IRs) from the state agencies, state offices, departments,
9 and programs included in § 23-95-6, as well as information gathered in public hearings, must
10 guide decision making, pursuant to this chapter.

11 **23-95-4. Definitions.**

12 As used in this chapter, the following words and phrases shall have the following
13 meanings:

14 (1) "Albedo" means the fraction of incident radiation, such as light and heat, reflected by
15 a natural cloud or by materials injected into the atmosphere.

16 (2) "Application" means a submitted, written request by any person, individual or entity
17 seeking to implement, conduct or engage in any form of geoengineering.

18 (3) "Area" means a portion within the confines of the state and its territorial waters,
19 which portion includes the atmosphere above it.

20 (4) "Atmospheric contaminant" means any type of aerosol, chaff, biologic or trans-
21 biologic agent, genetically modified agent, metal, radioactive material, vapor, particulate down to
22 or less than one nanometer in diameter, and any air pollutant regulated by the state, including,
23 without limitation, those deemed "unnecessary" pursuant to the general laws, xenobiotic (foreign-
24 to-life) electromagnetic radiation and fields, mechanical vibration and other physical agents, or
25 any combination of these contaminants.

26 (5) "Chaff" means aluminum-coated hair-like silica glass fibers typically dispersed in
27 bundles containing five (5) million to one hundred (100) million inhalable fibers, which fall to the
28 ground in about one day.

29 (6) "Conditions" means any limitations and safeguards to be placed on a geoengineering
30 activity that is licensed by the director of the department of environmental management.

31 (7) "Department or DEM" means the state department of environmental management.

32 (8) "Director" means the director of the state department of environmental management
33 (DEM).

34 (9) "Geoengineering" means the intentional manipulation of the environment, involving

1 nuclear, biological, transbiological, chemical, electromagnetic or other physical-agent activities
2 that effect changes to earth's atmosphere or surface.

3 (10) "License" means a license issued by the director pursuant to this chapter to engage
4 in geoengineering or any weather modification activities.

5 (11) "Person" means any individual, trust, firm, joint stock company, corporation,
6 including a quasi-governmental corporation, partnership, association, syndicate, municipality,
7 municipal or state agency, department, program, fire district, club, nonprofit agency, or any
8 subdivision, commission, bureau, agency, military group, university or college, armed services,
9 department of state or federal government (including quasi-governmental corporation), or region
10 within the United States, or inter-state or international body.

11 (12) "Release" means any activity that results in the issuance of contaminants such as the
12 emitting, discharging or injecting of one or more nuclear, biological, trans-biological, chemical,
13 or physical agents into the ambient atmosphere, either once, intermittently, or continuously.

14 (12) "Stratosphere" means the region of the upper atmosphere extending upward from the
15 edge of the troposphere to about thirty (30) miles or fifty kilometers (50 km) above the earth.

16 (13) "Troposphere" means the region of the lowest layer of the atmosphere, six (6) miles
17 or ten kilometers (10 km) high in some areas and as much as twelve (12) miles or twenty
18 kilometers (20 km) high in others, within which there is a steady drop in temperature with
19 increasing altitude and within which nearly all cloud formations occur and weather conditions
20 manifest.

21 **23-95-5. Geoengineering policy. Rules and regulations.**

22 (a) Procedure. Due to the potential for significant harm, any and all contemplated
23 geoengineering activities shall require the submission of a written license application to request
24 a license to engage in a specific type of geoengineering activity on a specified date or on several
25 specified dates during a period of time not to exceed five (5) days. Every submitted license
26 application shall be on the public record within twenty-four (24) hours of submission. Where
27 a license is granted, it cannot lawfully be used for any activity other than that specified in that
28 license, which constitutes a contract. The regulatory framework herein requires thorough review
29 of each license application by the various state agencies, offices, departments, programs, and
30 other parties named in § 23-29-6. The director may grant or deny a license, may modify
31 conditions of a license, and may revoke a license for cause. A licensee must file a full post-
32 activity report, including the hour and minute of each aspect of the activity.

33 (b) Evaluation. Under the licensing process, any contemplated geoengineering activity
34 must first be evaluated according to factors including any trans-boundary effects; any impacts of

1 reduction of sunlight reaching earth's surface; the planned methods of release, dispersal or
2 deployment of substances or physical agents into the environment; and the direct and indirect
3 effects, actual and potential, upon humans and other living organisms, populations, ecosystems,
4 human structures, aviation, and the state economy. Licensing requires that proof of environmental
5 health and safety be substantiated by the applicant.

6 (c) Regulatory oversight. The regulatory regimes of this chapter for any and all proposed
7 geoengineering activities, which may be extremely consequential, are tailored accordingly, with
8 license applications granted or denied only on a case-by-case basis, following the submission of
9 impact evaluation reports by the various agencies, offices, departments, and programs of the state
10 as listed in this chapter; following the director's EEIR, and following the public hearings and
11 comment periods.

12 (d) Impact reports (IRs) shall assess specific, actual and potential effects upon human
13 health and safety, aviation safety, agriculture, biodiversity, coastal conservation, endangered
14 species, energy, environment, fishing, forestry, habitat, water resources, wildlife, and ocean
15 purity. Any and all anticipated economic impacts of these assessed effects must be at once
16 evaluated by each state agency, office, department, program, and other party named in this
17 chapter.

18 (e) Public comment. Comments from the public, as well as from the public health,
19 science, disability, medical, health care, environmental science, agricultural, coastal,
20 conservation, ecology, fishing, forestry, and oceanographic communities, are essential to ensure
21 that scientific third parties and all members of the public, particularly those most vulnerable, will
22 have a role in the licensing process. Under the Universal Declaration of Human Rights, to which
23 the United States is a signatory, "everyone has the right to life, liberty and security of person."
24 Those harmed bodily by way of geoengineering have a greater right than stakeholders with
25 monetary interests. Further, the federal Americans With Disabilities Act provides that persons
26 with disabilities be able to participate in society without being harmed.

27 **23-95-6. Geoengineering license application.**

28 (a) Process. Any person seeking to implement, conduct, or engage in any form of
29 geoengineering within or above any area of the state shall first submit to the director of
30 the department of environmental management an application for a license to engage in a specific
31 type of geoengineering activity. The application process requires that a fee of one thousand
32 dollars (\$1,000) be paid into a public trust that shall be set up for the purpose. Criminal
33 background checks are required on each participant in a potential geoengineering activity.

34 (b) Application. The application document shall require all of the following information,

1 as well as other information deemed pertinent by the director and set forth in rules and regulations
2 promulgated for geoengineering activities:

3 (1) The applicant shall provide a detailed description of the contemplated geoengineering
4 activity or activities, with its/their purpose(s), scope, methods and timing.

5 (i) Methods shall divulge the sources, sizes, and precise chemical formulas of any
6 substances or mixtures to be used and any and all of their resulting products during and following
7 deployment, any biological or trans-biological materials and any potential interactions thereof
8 during and following deployment, and the wavelengths, modulation patterns, intensities, and
9 duration specifications of any type of electromagnetism or other physical agents to be deployed or
10 potentially emitted, intentionally or inadvertently.

11 (2) The applicant shall provide for any and all of the applied-for activities proof of safety
12 and environmental health, with substantiating scientific evidentiary documents from independent
13 sources.

14 (3) The applicant shall provide the names, educational and professional backgrounds, and
15 qualifications of any and all persons to be involved in the contemplated geoengineering activity,
16 along with any prior employment that could potentially bias resulting reports.

17 (4) The applicant shall provide the director either an electronic submission of the license
18 application or hard copies sufficient for distribution to each one of the various state agencies,
19 offices, departments, programs, and other parties listed as follows:

20 (i) Department of health;

21 (ii) Division of agriculture within the department of environmental management;

22 (iii) Office of air resources within the department of environmental management;

23 (iv) Office of water resources within the department of environmental management;

24 (v) Water resources board;

25 (vi) Rhode Island coastal resources management council;

26 (vii) University of Rhode Island coastal institute;

27 (viii) Rhode Island disability law center;

28 (ix) Office of energy resources;

29 (x) Rhode Island soil and conservation office;

30 (xi) Rhode Island state conservation committee;

31 (xii) Division of state parks & recreation;

32 (xiii) Division of fish and wildlife outdoor education;

33 (xiv) Rhode Island Fishermans Alliance;

34 (xv) Rhode Island Farm Bureau;

1 (xvi) Rhode Island Dairy Farms Cooperative;

2 (xvii) Rhode Island Audubon Society;

3 (xviii) Rhode Island Wild Plant Society;

4 (xix) Rhode Island airport corporation; and

5 (xx) Rhode Island emergency management agency.

6 (c) The agencies, offices, departments, programs, and other parties referenced in this
7 section shall respond within one business day to the director to acknowledge their receipt of the
8 license application. From out of their respective areas of specialization and purview, within a
9 reasonable period of time to be established by the director, they shall publish online their
10 respective IRs, naming any and all actual and potential impacts of the proposed geoengineering
11 activity, both short- and long-term, as respectively defined as within one year and within ten (10)
12 years. Alongside each of the potential impacts, both short- and long-term, the state parties shall
13 also provide estimates of the potential economic consequences of these short- and long-term
14 effects, likewise within one year and ten (10) year periods. Each IR shall in conclusion
15 recommend to allow, disallow, or to allow in a qualified way the proposed geoengineering
16 activity.

17 (d) Where any IRs that are due are missing, the director shall at once remind the party of
18 its duty.

19 (e) Upon receipt of all of the IRs from the various agencies, offices, departments,
20 programs, and other parties listed in this section, the director shall publish all of the IRs online
21 and announce with them on the public record the dates and times of at least four (4) public
22 hearings and the associated comment periods on the geoengineering license application.

23 (f) The director shall then hold the public hearings to receive comments on the license
24 application and the IRs. Following the hearings, and having collected any further public
25 comments outside of the hearings, the director shall commence an environmental and economic
26 impact review (EEIR) of all information in the respective IRs and received in the commentary
27 period, noting any contradictions and researching these contradictions particularly to find facts.

28 (g) In preparing the EEIR, the director shall consider all actual and potential public health
29 and safety, aviation safety, and environmental consequences, with the respective, one year and
30 ten (10) year economic impacts that may result from the proposed geoengineering activity,
31 weighting bodily security and health more heavily than economic interests. Upon completion of
32 the EEIR pursuant to this chapter, such report shall be made part of the public record.

33 (h) Following online publication of the EEIR, the director shall allow online commentary
34 to the EEIR for a period of two (2) weeks, prior to making a final decision on the application.

1 (i) Having reviewed commentary, the director shall add new information supplied by
2 state parties and members of the public and correct any misinformation, and revise the EEIR
3 accordingly.

4 (j) The director shall then render a decision to grant or deny a license.

5 (k) Given the potential for significant harm and economic loss, if any IR recommends
6 that the activity be disallowed, the director should generally deny the application. Where agencies
7 or members of the public have supplied to the public record evidence that the applied-for activity
8 is harmful, and the applicant has not disproven within seven (7) calendar days the validity of said
9 evidence, the director must deny the application. Where an activity has been approved by a
10 municipality, county or other lower entity or private person, yet is reported with supportive
11 evidence on the public record by an agency or member of the public to be harmful; and if the
12 person engaged in the activity has not disproven within seven (7) calendar days the validity of
13 said evidence, the director must issue a cease-and-desist order against the activity. Such order
14 shall have the authority of a court order, and any violation thereof shall be punished to the full
15 extent of the law.

16 (l) Where an activity or public process for an activity that is reported on the public record
17 as hazardous has been approved, explicitly or implicitly, by the federal government, the DEM
18 shall issue notice to the appropriate federal agency, branch, or body that the hazardous activity
19 cannot lawfully be carried out within or over the state, pursuant to states' rights under the Tenth
20 Amendment of the United States Constitution.

21 (m) Where an international body funds an activity reported with supportive evidence on
22 the public record to be hazardous, or engages in such activity, that entity shall be prohibited in
23 perpetuity from both engaging in any and all geoengineering activities and from applying for any
24 license to engage in any geoengineering activity.

25 (n) If the decision is to grant a license, the director shall first provide the applicant an
26 agreement potentially to be executed, documenting any and all limitations and safeguards as
27 conditions placed upon the geoengineering activity, including minimally the requirement of a
28 detailed report to be submitted to the DEM by the licensee after completion of the activity, and
29 steps to be taken to track effects and assure prompt public reporting of any observations and
30 objections. Along with the applicant's executed agreement, the applicant must provide proof of
31 bonding and insurance for the geoengineering activity, and indicate understanding of the potential
32 for adverse consequences, if the terms and conditions are violated or not fulfilled.

33 (o) If the agreement, the applicant's bonding and insurance, and other provisions are
34 found to be accurate and comprehensive, the director shall complete the execution of the

1 agreement and issue the license with its agreed-upon terms and conditions.

2 (p) Upon receipt of the license, the licensee shall inform the department precisely when
3 the geoengineering activity will begin, which must be no earlier than fourteen (14) days from the
4 issuance of the license. This period of time allows that independent monitoring by the
5 department, the various state agencies and other state parties, and the public, may be arranged
6 with due rigor.

7 (q) Any person aggrieved by a decision of the director may within ten (10) calendar days
8 pursue an appeal of the decision pursuant to chapter 35 of title 42, entitled (administrative
9 procedures act).

10 **23-95-7. Penalties for violations.**

11 (a) Any person, as defined in this chapter, and any officer thereof, who engages in any
12 geoengineering activity within or above any area of the state without a license or who fails to
13 comply with the decision of the director, shall be punished per violation by a fine of not less than
14 five hundred thousand dollars (\$500,000) or by imprisonment for not less than one hundred
15 ninety (190) days, or by both fine and imprisonment; and every such person shall be guilty of a
16 separate and distinct offense for each day during which each act of cloud seeding, weather
17 modification or any other geoengineering activity has been conducted, repeated or continued.

18 (b) Any person, as defined in this chapter, and any officer thereof, who engages in any
19 geoengineering activity within or above any area of the state without a license or who fails to
20 comply with the decision of the director, shall additionally be deemed to be in violation of
21 chapter 23 of this title, entitled (air pollution), and shall be subject to the provisions of that
22 chapter, including but not limited to, the use of executive orders to limit and restrain the actions
23 of the person or persons in violation thereof.

24 **23-95-8. Enforcement.**

25 (a) Public announcement. By way of Internet announcement, members of the public shall
26 be encouraged to monitor, measure, document and report present, potential (future), and past
27 incidents that may constitute geoengineering activities involving nuclear, chemical, biological, or
28 trans-biological substances, or physical agents such as electro-magnetic radiation and fields,
29 mechanical vibration and noise, and others.

30 (b) Reporting to state police. The reporter of any potential geoengineering activity shall
31 email or otherwise write the state police for immediate action. The reporter shall supply
32 evidentiary photos, ideally taken in several directions from several locations, each of these titled
33 as a separate electronic or hard-copy document, with the respective location(s) from which and
34 direction(s) in which they were taken and the date and time of each photo. Any collected samples

1 with photos, lab tests, microscopy, and other forms of evidence shall similarly be submitted in
2 writing to the state police.

3 (c) Reporting to officials. Alternatively, a member of the public may write with evidence
4 of a possible geoengineering activity to any public official. Whenever a public official has reason
5 to suspect, by observation, a report with evidence, or other means, that such activity may be
6 taking place, may be planned, or may have taken place, the public official or his or her agent must
7 report the possibility in writing within twenty-four (24) hours, with all documents from any
8 original reporter and all supportive evidence, to the state police for enforcement.

9 (d) Reports involving physical agents.

10 (1) As in the case of a report of a possible geoengineering activity involving substances, a
11 report to the state police of excessive electromagnetic radiation or electric or magnetic fields in
12 any part of the spectrum, including light and ionizing radiation, or intense mechanical vibration,
13 noise, or other physical agent, with photographic evidence of measurements of the physical
14 agent(s) or other evidence, shall trigger within twenty-four (24) hours a state agent's measurement
15 of peaks with the appropriate, calibrated meter or other forensic device(s) at and near the reported
16 location where power densities and other intensities are relevant to national security, safety,
17 health, or the environment.

18 (2) RF/MW radiation measured at or near the reported location by any state agent at peak
19 in excess of ten (10) microwatts per meter squared ($\mu\text{W}/\text{m}^2$), or low-frequency AC electric
20 fields in excess of one volt per meter (V/m) or magnetic fields in excess of one milliGauss (mG),
21 or ionizing radiation in excess of 0.02 mSv/h (milliSievert per hour), or any vibration, noise, or
22 other physical agent in excess of official limits, guidelines, or standards, shall trigger:

23 (i) The department's immediate communication of the requirement of the owner of each
24 tower, antenna, other wireless communications facility, or other facility deploying energy-
25 demanding emissions, and any and all other emitters at or near said reported location, to provide
26 records of all data collection on the extant operators at one or more sites nearby, where xenobiotic
27 electromagnetism, fields, or other physical agents are emitted;

28 (ii) The department's immediate communication of the requirement of the electrical
29 utility or utilities servicing those sites to provide within one business day all data-collection
30 records up to that date of electrical power usage at the site(s);

31 (iii) The department's order to cease operations of all antennas on the measured structure
32 other than those needed for police, fire, emergency services and aviation safety, which order shall
33 hold the authority of a judiciary order; and

34 (iv) The department's evaluation, within twenty-four (24) hours, of the owner's

1 [performance in causing the cessation of all operations except those operations listed in subsection](#)
2 [\(d\)\(2\)\(iii\) of this section.](#)

3 **23-95-9. Rules and regulations.**

4 [The director shall promulgate rules and regulations to implement the provisions of this](#)
5 [chapter, including, but not limited to, rules and regulations governing the license application](#)
6 [process for geoengineering activities and the contents of the application.](#)

7 **23-95-10. Summary.**

8 [All applicants for geoengineering licensing must include proof of safety, health, and](#)
9 [environmental health along with a one thousand dollar \(\\$1,000\) application fee with their](#)
10 [submission. Following the public process detailed in this chapter, if an agreement toward](#)
11 [licensing is provided to the applicant for potential execution, the applicant must then submit to](#)
12 [the department, along with the partially executed agreement, proofs of bonding and insurance](#)
13 [covering the geoengineering activity. A licensee must then notice the department at least fourteen](#)
14 [\(14\) days in advance of the initiation of the licensed activity in order that state and public](#)
15 [monitoring may properly be achieved.](#)

16 SECTION 2. This act shall take effect upon passage.

=====
LC002175
=====

EXPLANATION
BY THE LEGISLATIVE COUNCIL
OF

A N A C T
RELATING TO HEALTH AND SAFETY - THE GEOENGINEERING ACT

1 This act would establish a procedure and process to prohibit the intentional manipulation
2 of the environment by means that are known as "Geoengineering" and would require that a
3 person seeking to engage in a geoengineering activity must meet health, safety, and
4 environmental requirements in order to procure a license from the director of the department of
5 environmental management (DEM) for any such activity.

6 This act would take effect upon passage.

=====
LC002175
=====