Weather Modification Administrative Rules

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WEATHER MODIFICATION
Administrative Rules of the Texas Department of Licensing and Regulation
16 Texas Administrative Code, Chapter 79
Effective July 13, 2004

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79.1 Authority. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6654)

These rules are promulgated under the authority of Texas Agriculture Code, Chapters 301 and 302, and Texas Occupations Code, Chapter 51.

The following words and terms, when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise:

(1) **Act**--The Texas Weather Modification Act, Texas Agriculture Code, Chapters 301 and 302.

(2) **Commission**--The Texas Commission of Licensing and Regulation.

(3) **Department**--The Texas Department of Licensing and Regulation.

(4) **Filed**--a document is deemed to have been filed with the department on the date that the document has been received by the department or, if the document has been mailed to the department, the postmark of the document.

(5) **Operational area**--That area, described by metes and bounds or other specific bounded description, within which it is reasonably necessary to effectuate the purposes of a permitted operation. A part of the operational area may be outside the target area and thus not intended to be affected by the operation.

(6) **Target area**--The area described by metes and bounds, or other specific bounded description, which is intended to be affected by the operation.

(7) **Weather modification and control**--Changing or controlling, or attempting to change or control, by artificial methods the natural development of atmospheric cloud forms or precipitation forms that occur in the troposphere.

(8) **Weather modification and control program**--Research, development, licensing, and permitting and other associated activities to be administered by the Texas Department of Licensing and Regulation.

79.11. License and Permit Required. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6641)

(a) Unless specifically exempted by §79.12, no person may engage in weather modification and control activities without first obtaining a license and permit from the Department if any part of a Texas county is included in the operational or target area of the project.

(b) A separate permit is required for each weather modification project. If an operation is to be conducted under contract, a permit is required for each separate contract.


(a) Upon receiving written approval of exemption status from the Department in accordance with this section, persons may engage in the following types of weather modification and control activities without obtaining a license or permit.

(1) Laboratory research and experiments.

(2) Activities of an emergency nature for protection against fire, frost, sleet, or fog.

(3) Research, development, and application of weather modification technologies conducted by state and federal agencies, institutions of higher learning, and bona fide nonprofit research organizations.

(4) Activities normally conducted for purposes other than inducing, increasing, decreasing, or preventing precipitation or hail.

(b) Persons planning to conduct projects meeting the exemption requirements in subsection (a)(1), (3), or (4) must
request exemption status from the Department in writing at least 90 days prior to the proposed start of each weather modification project. The request must include the documentation required in §79.18(3) and the name and mailing address of the requestor.

(c) The Department will either grant or deny exemption status in writing within 30 days after the request is received.

(d) Persons engaging in weather modification and control activities exempted from licensing and permitting under subsection (a)(1), (3), or (4) must comply with the requirements of §§79.31 – 79.33.


(a) An application for a license shall be filed with the Department on a form provided or approved by the Department. The application shall include the required license fee and evidence of one of the following:

1. the applicant possesses a baccalaureate or higher degree in meteorology and at least five months of relevant field experience acceptable to the Department in weather modification;

2. the applicant possesses a baccalaureate or higher degree in physical science or engineering and at least ten months of relevant field experience acceptable to the Department in weather modification; or

3. the applicant possesses other training and relevant experience that the Department accepts as indicative of sufficient competence in the field of meteorology to engage in weather modification activities.

(b) If the applicant is an organization, evidence of the possession of the educational and experience qualifications required in subsection (a) by the individual or individuals who will be in control and in charge of the applicant's operations must be included with the application.

(c) The Department may refer the application to the Weather Modification Advisory Committee for advice as to the applicant’s qualifications for a license and the Weather Modification Advisory Committee may make recommendations to the Department on the issue of whether the applicant meets the requirements of this section for a license.


In the event the Department seeks advice on a license application from the Weather Modification Advisory Committee, a provisional license may be issued until such time the Committee meets and makes a recommendation to the Department. A provisional license entitles the applicant to be in control, and in charge, of day-to-day weather modification operations until such time a Committee recommendation, and subsequent Department action on the license application, are forthcoming.


(a) The Department shall issue a renewal license to each applicant who submits a timely license renewal application, pays the annual license fee, and maintains the qualifications necessary for issuance of an original license.

(b) The Department may refuse to renew the license of any applicant who:

1. has failed to comply with any provision of the license, the Act, this chapter, or any Texas weather modification permit issued to the licensee by the Department; or

2. has violated provisions of weather modification permits or licenses in another state, resulting in suspension or revocation of the applicant's license in that other state.
If the licensee has made application prior to the expiration date of the license, the terms of the existing license shall remain in effect until such time as the Department rules on the license renewal application.


(a) Any person seeking to obtain a Texas weather modification permit shall file with the Department a notice of intention to engage in a weather modification operation.

(b) The applicant shall include the following information in the notice of intention and must submit the notice of intention in the format prescribed by the Department.

1. A statement that an application for a Texas weather modification permit has been filed with the Department, giving the name and address of the applicant.

2. The date on which the Department issued the applicant a Texas weather modification license and all dates of renewal, or the date on which the applicant filed an application for a weather modification license with the Department.

3. The nature and objectives of the proposed operation and the number of years for which a permit is requested.

4. If applicable, the person or organization, including mailing address and occupation, on whose behalf the operation is to be conducted.

5. The operational area in which the proposed operation will be conducted, described in sufficient detail to plot the location on a map.

6. The target area, which is intended to be affected by the proposed operation, described, in sufficient detail to plot the location on a map.

7. The materials and methods to be used in conducting the proposed operation.

8. The approximate dates and times during which the proposed operation will be conducted.

9. A statement that persons interested in the permit application should contact the Department for more information.

10. A statement summarizing the conditions under which the public may request a public meeting on the application, as set forth in §79.20.

11. If the application includes hail suppression as an objective, a statement summarizing how the public can petition for an election.

(c) The applicant must submit with the notice of intention the type of supporting data prescribed in §79.18 (3).

(d) The applicant may not publish the notice of intention until the Department has reviewed and approved the notice of intention in writing.

(e) The Department may disapprove a notice of intention if the applicant fails to provide any of the information required by subsections (b) and (c) or if the Department determines that the notice of intention does not adequately describe the operation. The Department may seek the advice of the Weather Modification Advisory Committee in making this determination.

(f) If the notice of intention is disapproved by the Department, the applicant may appeal to the Executive Director within 10 working days after the applicant receives the Department's written disapproval. The Executive Director
shall review the Department's decision and enter an order approving or disapproving the notice of intention.

(g) The applicant must publish the notice of intention as approved at the applicant's expense at least once a week for three consecutive weeks in a newspaper of general circulation in each county in which the operation is to be conducted.

(h) The applicant must file proof of publication and publishers' affidavits with the Department within 15 days after the date of the last publication.


An application for a Texas weather modification permit must be filed with the Department and must include the following.

(1) The required permit fee.

(2) Proof that the applicant holds a valid Texas weather modification license or has a pending application for one.

(3) Supporting data for the application in a form prescribed by the Department, including:

   (A) a plan of operation that details the type of weather modification activity proposed,

   (B) equipment and personnel involved in the operation,

   (C) a description of climate and hazardous weather in the operational area, including explicit statements, where applicable, that the permittee will, or will not, and under what conditions, conduct operations in areas for which the National Weather Service has issued hazardous-weather watches and warnings,

   (D) a description of the weather modification methodology that will be used, accompanied by documentation (including citations in referenced meteorological journals) which attests to the technology's scientific credibility, and

   (E) a description of the technique that will be used to evaluate the overall effect of the proposed operation.

(4) All contracts, letters of intent, or proposals that pertain to conducting the proposed operation for a client;

(5) An illustration of the operational and target areas that is plotted on a map;

(6) Sufficient information to satisfy the Department that the applicant is able to pay damages for liability which might reasonably arise as a result of the proposed operation, such as a copy of a comprehensive liability insurance policy or a certificate from an insurer guaranteeing coverage for the proposed operation during the proposed term.

(7) A notice of intention.


(a) If at least 25 eligible persons make a timely written request, the Department shall hold a public meeting on an application prior to the issuance of a permit.

(b) Those eligible to request a public meeting on an application include all persons who reside or own property within the boundaries of the weather modification operational area, as defined in the application.

(c) A request for a public meeting must include:
(1) the signature, full name, mailing address, phone number, and physical address and county of the residence or property located in the proposed operational area of each person requesting a public meeting; and

(2) a statement that each person requesting a public meeting resides or owns property within the proposed operational area.

d) To be considered timely, a person’s request for a public meeting must be mailed to the Department and post-marked within 30 days after the date of the first publication of the notice of intention in the newspaper, which publishes the latest notice of intention in accordance with §79.17 (g). The Department, for good cause, may extend the time allowed for filing a request for a public meeting.

e) Upon determining that proper requests for a public meeting from at least 25 persons have been filed, the Department will schedule a public meeting within the area where the operation is to be conducted.

(f) Notice stating the time, place, subject, and legal authority of the public meeting shall be provided at least 20 days prior to the public meeting, as follows.

(1) The Department shall give notice by first-class mail to the applicant and to each person who has filed a proper request for a public meeting.

(2) The applicant must publish notice of the public meeting (at the applicant's cost) at least once in a newspaper of general circulation in each county that includes any part of the operational or target areas.


(a) The Department may issue a Texas weather modification permit upon determination of the following: 

(1) that the operation proposed in the application will not significantly dissipate the clouds and prevent their natural course of developing rain in the area where the operation is to be conducted to the material detriment of persons or property in that area;

(2) that the applicant:

(A) holds a valid Texas weather modification license, or has a pending application for one;

(B) has filed an administratively complete application in accordance with §79.18; and

(C) has published a notice of intention as approved by the Department and filed proof of publication as required by §79.17.

(b) The Department shall not issue a permit before the end of the 30-day period immediately following the first publication of the notice of intention. If the notice of intention is required to be published in more than one county and the newspapers publish the notice beginning on different days, the 30-day period begins on the date of the first publication of the notice in the newspaper that is the last to publish the notice of intention.

(c) When an election regarding a permit application including hail suppression has been held in accordance with Texas Agriculture Code Chapter 301, Subchapter D, the Department shall issue Texas weather modification permits in accordance with this section and §79.62.

79.22. Description of Permit. (Effective December 30, 2001, 26 TexReg 15025; amended effective July 13, 2004, 29 TexReg 6641)

A Texas weather modification permit shall include the following:
(1) the effective period of the permit, which may be all or part of a year or years, but not more than four years, and

   (A) if the permit is for more than one year, the permit shall contain a statement that it shall remain valid for so long as the permittee continues to operate in successive years during all or some of the months authorized;

   (B) if a weather modifier is authorized to conduct an operation on behalf of a sponsoring entity, the term of the permit shall be limited to the duration of the contract in effect between the weather modifier and the sponsor at the date that the Department issues the permit; and

   (C) if a weather modifier and client include in their initial contract that their agreement should be renegotiated during the term of a multi-year permit, the permit shall contain a statement that the weather modifier must submit a copy of any modified contract to the Department for review and approval before the start of operations under that modified contract;

(2) a description of the boundaries of the operational and target areas and a map that depicts those areas;

(3) the weather modification method(s) that may be employed;

(4) a requirement that the permittee maintain insurance coverage or other financial assurance of the types and amounts satisfactory to the Department for the term of the permit;

(5) a requirement that the permittee maintain a valid license and that the operation be directed only by those individuals named on the license or as amended under §79.51 and §79.52;

(6) a statement that the operation must be conducted during each year of a multi-year permit, as set forth in the plan of operations, and that the plan is incorporated in the permit;

(7) a requirement that the permittee notify the Department of any changes to the list required by §79.18 (8);

(8) a statement that the Department shall have immediate access to any information the permittee maintains that is pertinent to day-to-day weather modification operations; and

(9) other terms, requirements, and conditions that the Department deems advisable.

79.31. Recordkeeping Requirements. (Effective December 30, 2001, 26 TexReg 10525)

Any person conducting a weather modification operation with an operational or target area that includes any part of a Texas county must record and maintain, for each operation, the following:

(1) the daily log (NOAA Form 17-4B) required by 15 Code of Federal Regulations, §908.8(a); and

(2) the supplemental information required by 15 Code of Federal Regulations, §908.8(b), (c), and (d).


In addition to the record keeping requirements of §79.31, any person conducting a weather modification operation with an operational or target area that includes any part of a Texas county and that employs aircraft for reconnaissance or seeding purposes must record and maintain, for each operation, the following:

(1) date;

(2) time period (in minutes of local time);
(3) rates of dispersion of the seeding agent for each flight;

(4) total amount of seeding agent dispensed;

(5) description of each flight track logged in such a manner as to allow a complete and accurate reconstruction of the run and identified at the beginning and ending of each flight by one of the following methods:

(A) radial and distance from a standard reference point,

(B) ground fixes in statute miles from a nearby town or landmark, or

(C) geostationary positioning system (GPS) location.


Any person conducting a weather modification operation with an operational or target area that includes any part of a Texas county must report in writing the following information to the Department according to the schedule given:

(1) any changes or additions to the list filed with the permit application in accordance with §79.18 (3)(B) must be filed by the fifteenth day of the following month;

(2) for each month in which operations are conducted, one copy of the record of operations for that month required by §79.31 and, if applicable, one copy of the record of operations for that month required by §79.32 must be filed by the fifteenth day of the following month;

(3) one copy of all other reports required by 15 Code of Federal Regulations, §§908.5-908.7, must be filed no later than the deadlines set by the federal regulation.

79.41. Amendment, Revocation, or Suspension. (Effective December 30, 2001, 26 TexReg 10525)

(a) The Department may initiate proceedings before the Executive Director to:

(1) amend a permit if it appears necessary to protect the health or property of any person; or

(2) suspend or revoke a permit or license if the Department has good cause to believe that the permit or license should be suspended or revoked.

(b) Suspension of a license shall suspend automatically for a like period of time any permit issued under that license, unless the permit is issued to more than one licensee, and at least one of those licensees remains in good standing.

(c) Revocation of a license shall revoke automatically any permit issued under that license, unless the permit is issued to more than one licensee, and at least one of those licensees remains in good standing.


(a) Good cause to believe that a license should be revoked or suspended shall include, but not be limited to, the following:

(1) the licensee has violated any of the provisions of the Act, rules, or license;

(2) the licensee has filed false and/or misleading information on his or her application;

(3) the individual or individuals named in the license no longer possess the qualifications necessary for the issuance of an original license;
(4) the operational personnel or other information which were the basis for the issuance of the license have changed materially; or

(5) the licensee is deemed incompetent to hold a license by virtue of previous violations of weather modification permits or licenses in other states, resulting in suspension or revocation of the licensee's license in that other state.

(b) Good cause to believe that a permit should be revoked or suspended shall include, but not be limited to, the following:

(1) the permittee has violated any of the provisions of the Act, rules, or the permit;

(2) the permittee has filed false or misleading information in either its application for a permit or the records required to be filed by §79.31 and §79.32;

(3) the permittee's license has expired during the term of the permit and the licensee has not made a timely request for renewal; or

(4) the Department has reason to believe that the permitted operation is significantly dissipating the clouds and preventing the natural course of developing rain in the area where the operation is conducted to the material detriment of persons or property in that area.

79.43. Notice and Hearing. (Effective December 30, 2001, 26 TexReg 10525)

The Department may initiate proceedings to amend, suspend, revoke, or otherwise sanction a permit or a license and/or recommend administrative penalties in accordance with the Act or the Texas Occupations Code, Chapter 51 and 16 TAC, Chapter 60 (relating to the Texas Commission of Licensing and Regulation).

79.44. Emergency Order to Cease Operations. (Effective December 30, 2001, 26 TexReg 10525)

(a) If the executive director determines that probable imminent injury or hazard to any person, property, or to the public, will occur as the result of a weather modification operation, the executive director shall immediately initiate proceedings to order a licensee or the person in control and in charge of the operation to cease some or all operations without suspending the permit.

(b) Notice of the order to discontinue operation may be given verbally by the executive director to the licensee or to the person in control and in charge of the operation, to be confirmed in writing thereafter at the earliest possible date.

(c) Operations may resume after the licensee or person in control and in charge of the operation has been notified by the executive director that the probability of injury or hazard has ceased.


A licensee seeking to amend any provision of a Texas weather modification license must:

(1) file a license amendment request with the Department in accordance with the requirements of §79.13, and pay the required amendment fee;

(2) if the amendment being requested involves adding a person or persons to the license, provide sufficient documentation on the education and training, qualifications, and work experience of the individual or individuals who is (are) to be in control, and in charge, of weather modification operations for the licensee.

79.52. Issuance of License Amendment. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6641)
The Department shall issue a Texas weather modification license amendment in the same manner as issuance of an original license in accordance with §79.14.

79.53. Application for Permit Amendment. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6641)

A permittee seeking to amend any provision of a Texas weather modification permit must:

(1) file a permit amendment application with the Department in accordance with the requirements of §79.18, and pay the required amendment fee;

(2) unless the Department deems the amendments minor in accordance with §79.55, file and publish a notice of intention with the Department in accordance with the requirements of §79.17; however, the headings of the notice of intention should be altered to reflect the fact that the permittee seeks an amendment rather than an original permit;

(3) if the amendment sought by the permittee alters only the delineation of either the operational or target areas to the extent that territory is added to either or both areas, publish the notice of intention only in the counties that include any part of the territory being added to the operational or target areas.

79.54. Issuance of Permit Amendment. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6641)

(a) The Department shall issue a Texas weather modification permit amendment in the same manner as for issuance of an original permit in accordance with §79.21.

(b) The Department will evaluate requests for a public meeting on permit amendment applications in the same manner as for original permit applications in accordance with §79.20.

79.55. Exception for Minor Permit Amendments. (Effective December 30, 2001, 26 TexReg 10525)

(a) No notice of intention need be filed or published and no public meeting will be scheduled with respect to applications for amendments that the Department deems minor.

(b) An amendment shall be deemed minor if:

(1) in the judgment of the Department, it has no potential for harming the health or property of any person; and

(2) it does not negate or render inaccurate any information contained in the notice of intention that was published with respect to the original application for the permit that is sought to be amended.

79.61. Hail Suppression as Objective of Permit. (Effective December 30, 2001, 26 TexReg 10525; amended effective July 13, 2004, 29 TexReg 6641)

(a) If the notice published pursuant to Agriculture Code Chapter 301, Subchapter D does not include notice that hail suppression is an objective of the operation, any qualified voter in the proposed target or operational area may request that the Department determine whether the objective of the operation includes hail suppression.

(b) The Commission shall consider the request in a public meeting and determine the nature of the proposed operation. The Commission shall issue an order that determines the nature of the operation. If the Commission determines that the proposed operation includes hail suppression as an objective, the order shall specify the terms under which the applicant may republish the notice of intention.

(c) If the Commission determines that the objectives of the proposed operation include hail suppression, the Commission shall not issue a permit unless the applicant meets the requirements of the order issued by the Commission.

(a) If qualified voters in counties or parts of counties included in the target area or operational area petition for and cause an election or elections to be held in accordance with Agriculture Code Chapter 301, Subchapter D, the Department must evaluate the results of the election or elections, as certified and filed by the respective county commissioners court in accordance with Agriculture Code Chapter 301, Subchapter D before issuing the permit.

(b) If, as a result of the election or elections, certain areas are excluded from the coverage of the permit as applied for, the Department must determine if the proposed operation is still feasible for those areas in which no election was requested and in those areas in which the voters gave their approval. The Department may conduct a public meeting for the sole purpose of determining the feasibility of the proposed operation.

(c) The Department shall not issue the permit if a majority of the qualified voters voting in the election precincts, which are wholly or partially within the target area, vote in opposition to the issuance of the permit.

(d) The Department may issue the permit if a majority of the qualified voters voting in the election precincts that are wholly or partially within the target area vote in favor of the issuance of the permit. However, the permit must exclude any precinct in which the majority of qualified voters voted in opposition to the issuance of the permit if that precinct is wholly within the target area and contiguous with its outer boundary or is wholly or partially within the operational area.

(e) No permit can be issued covering any county or part of a county previously excluded from the coverage of a permit by virtue of an election for at least two years from the date of the election, and then, only if a subsequent election is held at which the majority of voters vote to approve the permit.

79.80. Fees. *(Effective July 13, 2004, 20 TexReg 6641)*

(a) Original and Renewal License and Permit fees;

   (1) Weather Modification License--$650.

   (2) Weather Modification Permit--$75.

(b) License and Permit Amendment fees:

   (1) Weather Modification License Amendment--$650.

   (2) Weather Modification Permit Amendment--$75.

(c) Late renewal fees for licenses issued under this chapter are provided for under §60.83 of this title (relating to Renewal Fees).

(d) The fee for issuance of a duplicate license or permit is $25.

(e) All fees are non-refundable.

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