

OKLAHOMA WATER RESOURCES BOARD RULES

CHAPTER 15. WEATHER MODIFICATION

1998

Note: This document contains only Chapter 15 of the Oklahoma Water Resources Board's rules. Also, this document was prepared by Oklahoma Water Resources Board staff as a convenience to the reader, and is not a copy of the official Title 785 of the Oklahoma Administrative Code. State law requires that the Secretary of State's office provide permission to copy the official code. The rules in the official Oklahoma Administrative Code control if there are any discrepancies between the Code and this document.

CHAPTER 15.WEATHER MODIFICATION

July 1, 1997

Subchapter	Section
1. General Provisions	785:15-1-1
3. Licenses and Permits	785:15-3-1
5. Records, Reports and Monitoring	785:15-5-1
7. Emergency Drought Conditions	785:15-7-1

[Authority: 82 O.S., Sections 1085.2 and 1087.1 et seq.]

[Source: Codified 12/31/91]

**SUBCHAPTER 1.
GENERAL PROVISIONS**

Section	
785:15-1-1.	Purpose
785:15-1-2.	Definitions
785:15-1-3.	Violations and penalties
785:15-1-4.	Certain liabilities not imposed or rights affected
785:15-1-5.	Contracts to engage in weather modification activities
785:15-1-6.	Hearings
785:15-1-7.	Advisory committees

785:15-1-1. Purpose

These rules are adopted to promote properly conducted weather modification operations and research and development, to minimize possible adverse effects from weather modification activities and to facilitate the administration and enforcement of the Weather Modification Act. The rules of this Chapter shall be liberally construed to carry out these objectives and purposes.

785:15-1-2. Definitions

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

"**Assessments**" mean the charges imposed by any weather modification program.

"**Board**" means the Oklahoma Water Resources Board or any employee or agent or staff member thereof.

"**License**" means a certification issued by the Board to qualified persons making application therefor authorizing such persons to engage in weather modification and control operations.

"**Person**" means any individual, firm, partnership, association, corporation, business or public trusts, federal agency, state agency, the State of or any political subdivision thereof, municipalities, and any other duly constituted legal

entity.

"**Weather modification**" means changing or attempting to change by artificial methods, the composition, motions and resulting behavior of the atmosphere.

"**Weather modification apparatus**" means any apparatus used with the intention of producing artificial changes in the composition, motions and resulting behavior of the atmosphere.

"**Weather modification operation**" means *the performance of weather modification activities by chemical, mechanical or physical means pursuant to a single contract entered into for the purpose of producing, or attempting to produce a certain modifying effect other than naturally occurring within one specified geographical area during the period of operation not exceeding one (1) year, or, if the performance of weather modification activities are to be undertaken individually or jointly by a person or persons to be benefited and not undertaken pursuant to a contract, "operation" means the performance of weather modification activities by chemical, mechanical or physical means entered into for the purpose of producing, or attempting to produce, a certain effect other than that naturally occurring within one specified geographical area during the period of operation not exceeding one (1) year.* [82:1087.2(2)]

"**Weather modification operations director**" means the person who has the knowledge and experience necessary to design, manage, evaluate and have overall responsibility for a weather modification operation.

"**Weather modification permit**" means the specific written authorization to perform weather modification activities within a specified area of the State of Oklahoma under a license issued by the Board.

"**Weather modification research and development**" means *theoretical analysis, exploration and experimentation and the extension*

of investigative findings and theories of a scientific or technical nature into a practical application for experimental production and testing of models, devices, equipment, materials, and processes. [82:1087.2(3)]

"Weather modification target area" means the surface area within which the effects of an operation are expected to be found.

785:15-1-3. Violations and penalties

As provided by 82 O.S. 1981, §1087.20, any person violating any of the provisions of the Weather Modification Act (82 O.S. 1981, §§1087.1 through 1087.33, as amended) or any rules, regulations, or orders issued pursuant thereto shall be guilty of a misdemeanor and a continuing violation punishable as a separate offense for each day during which it occurs, and upon conviction shall be imprisoned in the county jail for not more than ten (10) days or by a fine of not less than One Hundred Dollars (\$100.00) nor more than One Thousand Dollars (\$1,000.00), or both, for each such separate offense.

785:15-1-4. Certain liabilities not imposed or rights affected

Nothing in the Weather Modification Act or the rules of this chapter shall be construed to impose or accept any liability or responsibility on the part of the State of Oklahoma or any state officials or employees for any weather modification...activities of any private person or group, or to affect in any way any contractual, tortious or other legal rights, duties, or liabilities between any private persons or groups. [82:1087.19]

785:15-1-5. Contracts to engage in weather modification activities

Any counties contracting with other counties and other local subdivisions of government and State and federal agencies who shall contract to engage in joint weather modification operations as provided in 82 O.S. 1981, §§1087.22 et seq., shall file copies of such contracts with the Board for its approval.

785:15-1-6. Hearings

Any hearing held pursuant to the Weather Modification Act shall be conducted in accordance with the Administrative Procedures Act (75 O.S. 1981, §§301 et seq., as amended) and Chapter 4 of this Title.

785:15-1-7. Advisory committees

In the performance of the functions authorized in the Weather Modification Act the Board may establish advisory committees to advise with and make recommendations to the Board concerning legislation, policies, administration, research and other matters. [82:1087.3(1)]

SUBCHAPTER 3. LICENSES AND PERMITS

PART 1. LICENSING PROCEDURES

Section

- 785:15-3-1. Who should file for a license
- 785:15-3-2. License application procedures and requirements
- 785:15-3-3. Expiration, renewal, and revocation of license

PART 3. PERMIT PROCEDURES

Section

- 785:15-3-10. Who should file for a permit
- 785:15-3-11. Permit application procedures and requirements
- 785:15-3-12. Financial responsibility requirements under permit
- 785:15-3-13. Publication of notice of intention for permit
- 785:15-3-14. Hearings
- 785:15-3-15. Permit approval or denial
- 785:15-3-16. Permit suspension, modification or cancellation

PART 5. EXEMPTIONS

Section

- 785:15-3-20. Exemptions from license and permit requirements

PART 1. LICENSING PROCEDURES

785:15-3-1. Who should file for a license

Any person desiring to engage in weather modification operations in the State of Oklahoma shall be required to make application, prior to commencing actual operations, for a license and be issued such license by the Board.

785:15-3-2. License application procedures and requirements

In order to qualify for a weather modification

license an applicant must:

- (1) Submit a properly completed application in duplicate on forms furnished by the Board;
- (2) Submit an application fee (see Chapter 5 of this Title, Fees) with the completed application form or show exemption from such fee as set forth in 785:15-3-20;
- (3) Designate an Operations Director having the following minimum professional and education requirements:
 - (A) Two (2) years experience as an Operations Director; and
 - (B) One of the following four (4) requirements:
 - (i) Six (6) additional years of experience in weather modification field operations; or
 - (ii) A bachelor's degree in engineering, mathematics, or applicable physical or natural sciences, plus two (2) additional years of experience in weather modification field operations; or
 - (iii) A bachelor's degree in meteorology; or
 - (iv) A bachelor's degree in engineering, mathematics, or applicable physical or natural sciences including at least twenty-five (25) semester hours of meteorological course work.
- (4) Demonstrate, to the satisfaction of the Board, sufficient knowledge and competence in the field of meteorology and cloud physics. If the applicant is an organization, these requirements shall be met by the individual or individuals who are to be in control and in charge of the operation for the applicant. A resume' of each individual's qualifications shall be attached as a part of the application.
- (5) Show financial responsibility reasonably necessary to engage in activities for weather modification (See 785:15-3-12).

785:15-3-3. Expiration, renewal, and revocation of license

(a) Each weather modification license *shall be issued for a period to expire at the end of the State fiscal year in which it is issued.* [82:1087.9(B)] Such license shall, upon application, be renewed at the expiration of such period if the licensee possesses all the necessary qualifications stated

in Section 785:15-3-2. The application for renewal shall be accompanied by the renewal fee (see Chapter 5 of this Title, Fees) except in the case of those exemptions as set forth in 785:15-3-20, in which case the fee will be waived.

(b) The Board may, after first giving notice and reasonable opportunity for hearing as provided in the Administrative Procedures Act and Chapter 4 of this Title, *revoke or refuse to renew any license issued by it if the applicant no longer qualifies for such license or if the applicant has violated any provisions of [82:1087.18(A)] the Weather Modification Act or these rules and regulations.*

PART 2. PERMIT PROCEDURES

785:15-3-10. Who should file for a permit

(a) Any person desiring to engage in operations for weather modification in the State of Oklahoma shall be required to make application, prior to actual operations, for a permit and be issued such a permit by the Board.

(b) A separate application and permit shall be required for each operation under a given license and shall automatically terminate upon expiration of such license.

785:15-3-11. Permit application procedures and requirements

(a) In order to qualify for a weather modification permit an applicant must:

- (1) Possess a valid license for weather modification operations in the State of Oklahoma;
- (2) Submit a properly completed application in duplicate on forms furnished by the Board for each operation under a given license;
- (3) Submit an application fee (see Chapter 5 of this Title, Fees) for each permit with the completed application form or show exemption from such fee as set forth in 785:15-3-20;
- (4) Publish a notice of intention for each permit (forms to be furnished by the Board);
- (5) Any additional information as the Board may deem appropriate.

(b) In cases where contractual agreements are involved, and other than research and development operations are to be performed, the contractor must have on file with the Board a corporate surety bond for Five Thousand Dollars (\$5,000.00) for the faithful performance of each

weather modification contract to be entered into by the contractor. The surety on any bond to guarantee the faithful performance and execution of any work shall be deemed and held, any contract to the contrary notwithstanding, to consent without notice to an extension of time to the contract-or in which to perform the contract for a period of not more than thirty (30) days.

(c) Weather modification permits shall be issued for a twelve (12) month period, commencing on the date of issuance. When a weather modification operation extends past twelve (12) months the permit may be extended for subsequent twelve (12) month periods upon payment of the annual fee and a review of the operation(s) by the Board.

(d) Permit applications shall be submitted at least ninety (90) days prior to the initial date of the proposed operational period for which the permit is being sought. This will allow time to hold a hearing in the event the application for a permit is protested, review the information presented, and allow action by the Board prior to the proposed starting date of the project.

(e) A weather modification permit is neither assignable nor transferable by the holder.

(f) A new permit shall be required if the boundaries of the operation for which a permit has previously been obtained are changed.

(g) Any weather modification operation for which a permit is granted shall be conducted, on an operation-day basis, under the personal direction of a qualified operations director possessing a valid weather modification license.

785:15-3-12. Financial responsibility requirement under permit

All applicants shall have on file, prior to permit issuance, proof of *ability to respond in damages for liability which might reasonably be attached to or result from* [82:1087.14] any permitted weather modification activities. This proof shall be in the form of a liability insurance policy in the amount of Three Hundred Thousand Dollars (\$300,000.00) minimum for each permit to be issued or such other proof of financial responsibility as may be required.

785:15-3-13. Publication of notice of intention for permit

(a) A notice of intention for each permit shall be filed on forms furnished by the Board containing

the following information:

- (1) The name and address of the applicant;
- (2) Name and address of the operations director;
- (3) The individual or organization on whose behalf the operation is to be conducted;
- (4) The operations area;
- (5) The target area;
- (6) The seeding hypothesis;
- (7) The intended effect of the operation;
- (8) The seeding materials and weather modification apparatus to be used in conducting the operation;
- (9) The period of operation, including starting and ending dates (the operation need not be continuous);
- (10) Any additional information as the Board may deem appropriate.

(b) The notice of intention shall be published at the applicant's expense *once a week for two (2) consecutive weeks* [82:1087.13(A)] on the dates designated by the Board *in a newspaper having general circulation* [82:1087.13(A)] in each county or counties of the proposed operations area and affected area.

(c) Proof of publication together with the publisher's affidavit [82:1087.13(B)] showing dates the notice of intention was published *shall be filed with the Board by the licensee within fifteen (15) days from the date of the last publication of the notice.* [82:1087.13(B)]

785:15-3-14. Hearings

Upon request of any interested party, the Board shall conduct a hearing in accordance with the provisions in Chapter 4 of this Title and the Administrative Procedures Act to determine if the requirements of the Weather Modification Act and the rules of this chapter have been met.

785:15-3-15. Permit approval or denial

(a) After evaluating the application and the evidence presented at the hearing held pursuant to 785:15-3-14, if it is determined that the proposed weather modification operation is safe and not a menace to life and property and is in conformity with all statutory requirements and the rules of this Chapter, said application shall be approved by the Board.

(b) If it is determined that the proposed weather

modification operation is unsafe and a menace to life and property or does not give reasonable and adequate consideration to the planting and harvesting of agricultural crops or does not give reasonable and adequate consideration to other segments of the economy or important public events which could be affected by the operation, said application shall be denied by the Board.

(c) The applicant shall be notified in writing of the Board's decision.

785:15-3-16. Permit suspension, modification or cancellation

(a) Each permit issued will reflect that weather modification operations may be suspended during certain times to protect life and property.

(b) When it appears to the Board that an emergency exists or appears imminent, or the Board has been notified of a probable impending emergency or is not satisfied with the conduct of field operations or the effect of the modification operations within the area affected by such condition, the Board may order the permit holder to immediately suspend all weather modification operations within the area affected by such condition.

(1) Notification shall be given in the most expeditious manner.

(2) If the telephone is used to give such notice, it is to be followed promptly by a certified letter of particulars from the Board addressed to the permit holder stating the time and place for holding a hearing on the question of taking permanent action to modify or cancel the permit.

(3) Whether or not operations are allowed to be reinstated by the Board, and when such reinstatement may take place, will depend upon the conditions that develop within the permit area or when the requirements of the Board are met.

(c) Failure of the licensee to notify the Board of an existing or impending emergency which should have reasonably been foreseen may be grounds for cancellation of the permit and the operator's license after notice and hearing as provided in the Administrative Procedures Act and the rules in this Title.

PART 5. EXEMPTIONS

785:15-3-20. Exemptions from license and

permit requirements

The Board, to the extent it deems practical, shall provide for exempting from license and permit requirements:

(1) *Research and development and experiments by state and federal agencies and institutions of higher learning;*

(2) *Laboratory research and experiments;*

(3) *Activities normally engaged in for purposes other than those inducing, increasing, decreasing or preventing [82:1087.8] naturally occurring weather phenomena; and*

(4) *Religious ceremonies, rites or acts and American Indian or other cultural ceremonies which do not utilize chemical or mechanical means to alter weather phenomena and which are not performed for profit. [82:1087.8]*

**SUBCHAPTER 5.
RECORDS, REPORTS AND MONITORING**

Section

785:15-5-1. Records

785:15-5-2. Reports

785:15-5-3. Release of information to public

785:15-5-4. Monitoring

785:15-5-1. Records

(a) **Daily Log.** Each permittee must maintain a daily log of weather modification activities for each unit of weather modification apparatus used during an operation. The log requires:

(1) Date of weather modification activity.

(2) Each aircraft flight track and location of each item of weather modification apparatus during each modification mission. Use of maps is encouraged.

(3) Local time when modification activity began and ended. For non-continuous activities, the start and end of a total sequence of activity is acceptable.

(4) Amount of time each unit of weather modification apparatus is in operational use.

(5) Type of modification agent used in each weather modification apparatus.

(6) Rate of dispersal of the seeding agent during actual use of each weather modification apparatus.

(7) Total amount of seeding agent used.

If more than one agent is used, list totals for each type of agent separately.

- (8) Local time when any type of monitoring, (i.e., radar, rawinsonde) was operational.
- (9) Type(s) of cloud(s) modified, (i.e., stratiform, isolated cumuliform, organized cumuliform, etc.).
- (10) Narrative indicating such operational problems as equipment failure, personnel problems, weather conditions, etc.
- (11) Monthly totals from the daily logs listing the following:
 - (A) Days during month in which operation was conducted;
 - (B) Time of operation;
 - (C) Amount of each kind of seeding agent used;
 - (D) Average rate of dispersal of each kind of seeding agent used;
 - (E) Time of operation of any monitoring equipment;
 - (F) Days of each type of cloud treated.

(b) **Weather Records.** Each permittee must obtain and retain copies of all daily precipitation total records available from the National Weather Service stations in the target area and from any other reliable source.

(c) **Participants.** Each permittee must keep a current listing of names and addresses of all participants in the State on an operation for which a permit has been issued.

(d) **Exempted Activities.** The Board, at its discretion, may require persons engaged in weather modification activities exempted under 785:15-3-20 to keep all or part of the record required of permittees by this rule. These records shall be kept in a manner as the Board requires.

785:15-5-2. Reports

(a) **Monthly Report.** Within ten (10) days after the conclusion of each calendar month the permittee shall submit a report to the Board which shall consist of:

- (1) A summary of the records prepared under 785:15-5-1;
- (2) A copy of the roster of all participants in the State on an operation which was prepared according to Section 785:15-5-1;
- (3) A narrative account of the manner in which the weather modification operation did not conform to the intended effect of the

notice of intention filed in accordance with 785:15-3-13.

(b) **Summary Report.** Summary reports on observed results of each operation must be submitted annually and/or within thirty (30) days after expiration of the period of the permit or at other times as the Board may require. These summary reports shall consist of:

- (1) A summary of the records prepared under 785:15-5-1;
- (2) A copy of the roster of all participants in the State on an operation which was prepared according to 785:15-5-1;
- (3) A narrative account of the manner in which the weather modification operation did not conform to the intended effect of the notice of intention filed in accordance with 785:15-3-13.

(c) **Evaluation.** Within one hundred and twenty (120) days after completion of the operation the permittee shall file with the Board a narrative evaluation of the operation. The data for this report should be assembled, evaluated and presented in accordance with 785:15-3-13.

(d) **Reports to Sponsors.** The permittee shall file with the Board a copy of all reports made by the permittee to sponsors of the operation.

(e) **Exempted Weather Modification Activities.** The Board may, at its discretion, require those persons operating weather modification activities exempted under 785:15-3-20, but who have been required under 785:15-5-1 to keep certain records, to file all or part of the reports required by this rule. These records and reports shall be kept and filed in such manner as required by the Board.

785:15-5-3. Release of information to public

All operational information on a permitted project shall be filed with the Board before such information on the project may be released to the public. Scientific and other information concerning a project shall also be filed with the Board as it becomes available and before being released to the public.

785:15-5-4. Monitoring

Where any licensee is conducting weather modification operations in an area where the United States Government or its agent is conducting weather modification research then said licensee shall submit to monitoring by the United States Government or its agent, provided

the monitoring does not interfere with the normal operation and results of the project.

**SUBCHAPTER 7.
EMERGENCY DROUGHT CONDITIONS**

Section

785:15-7-1. Emergency drought conditions

785:15-7-1. Emergency drought conditions

Upon declaration of emergency drought conditions within any county or counties of this State by proclamation of the Governor or by concurrent resolution by the Legislature, [82:1087.13(C)] a permit may be granted, by the Director, without requiring notice by publication of intent. If the notice by publication requirement has been suspended by the declaration of emergency drought conditions, the licensee may begin operations under the permit immediately provided he initiates a compliance with the notice of intention requirements of 785:15-3-13 within ten (10) days of issuance of the permit.