

**TITLE 19       NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 11    GEOTHERMAL RESOURCES DEVELOPMENT**  
**PART 1        GENERAL PROVISIONS**

**19.11.1.1       ISSUING AGENCY:** Energy, Minerals and Natural Resources Department, Energy Conservation and Management Division.  
[19.11.1.1 NMAC - N, 2/27/2018]

**19.11.1.2       SCOPE:** All persons who engage in the exploration, development or production of a geothermal resource.  
[19.11.1.2 NMAC - N, 2/27/2018]

**19.11.1.3       STATUTORY AUTHORITY:** Geothermal Resources Development Act, Section 71-9-1 et seq. NMSA 1978 (2016).  
[19.11.1.3 NMAC - N, 2/27/2018]

**19.11.1.4       DURATION:** Permanent.  
[19.11.1.4 NMAC - N, 2/27/2018]

**19.11.1.5       EFFECTIVE DATE:** February 27, 2018, except where a later date is cited at the end of a section.  
[19.11.1.5 NMAC - N, 2/27/2018]

**19.11.1.6       OBJECTIVE:** The objective of 19.11.1 NMAC is to set forth general provisions and definitions pertaining to the authority of the energy conservation and management division pursuant to the Geothermal Resources Development Act, Section 71-9-1 et seq. NMSA 1978 (2016).  
[19.11.1.6 NMAC - N, 2/27/2018]

**19.11.1.7       DEFINITIONS:** These definitions apply to 19.11.1 through 19.11.4 NMAC. See Section 71-9-3 NMSA 1978 (2016) for the definitions of “correlative rights”, “division”, “geothermal reservoir”, “geothermal resources” and “person”.

**A.       Definitions beginning with the letter “A”.**

(1)       “**Act**” means the Geothermal Resources Development Act, Section 71-9-1 et seq. NMSA 1978 (2016).

(2)       “**Affected person**” means a person having a property interest, water right or geothermal resource interest (correlative right) within the public notice area specified in Subsection B of 19.11.2.13 NMAC.

(3)       “**Applicant**” means any person who applies with the division for a permit to construct, modify or operate a well or facility used for the exploration, development or production of geothermal resources.

(4)       “**Annular space**” means the space between the walls of the well as drilled and the casing or between a permanent casing and the borehole.

(5)       “**ASL**” means above sea level.

**B.       Definitions beginning with the letter “B”.**

(1)       “**Blowout**” means an uncontrolled escape of liquids or gases, or both, from a geothermal well.

(2)       “**Blowout prevention equipment**” means equipment that is designed to be attached to the casing in a geothermal well to prevent a blowout.

(3)       “**BOPE**” means blowout prevention equipment.

**C.       Definitions beginning with the letter “C”.**

(1)       “**Casing**” means the conduit required to prevent waste and contamination of the ground water, the geothermal resource or both, and to hold the formation open during the well’s construction or use.

(2)       “**Closed-loop system**” as used in 19.11.4 NMAC means a system that uses above ground tanks for the management of drilling fluids.

(3) **“Contaminant”** means any physical, chemical, biological or radiological substance or matter in water.

**D. Definitions beginning with the letter “D”.**

(1) **“Department”** means the energy, minerals and natural resources department.

(2) **“Director”** means the director of the energy conservation and management division of the department.

(3) **“Drilling operations”** means the actual drilling, re-drilling, completion or recompletion of a well for exploration, observation, production or injection including the running and cementing of casing, the performance of such operations as logging and perforating and the installation of pumps and well-head equipment.

**E. Definitions beginning with the letter “E”.**

(1) **“EPA”** means the United States environmental protection agency.

(2) **“Exploratory well”** means a well drilled for the discovery or evaluation of geothermal resources either in an identified geothermal reservoir or in unexplored areas.

**F. Definitions beginning with the letter “F”.** **“Fresh water”** means the water in lakes and playas (regardless of quality, unless the water exceeds 10,000 mg/l TDS and it can be shown that degradation of the water body will not adversely affect hydrologically connected ground water), the surface waters of streams regardless of the water quality within a given reach and ground water that has an existing concentration of 10,000 mg/l or less.

**G. Definitions beginning with the letter “G”.** **“GRCA”** means the Geothermal Resources Conservation Act, Section 71-5-1 et seq. NMSA 1978.

**H. Definitions beginning with the letter “H”. [RESERVED]**

**I. Definitions beginning with the letter “I”.** **“Injection well”** means any well employed for injecting material into a geothermal area or adjacent area to maintain pressures in a geothermal reservoir, pool or other source, or to provide new material to serve as a material medium therein, or for reinjecting any material medium (including fluids) or the residue thereof, or any by-product of geothermal resource exploration or development into the earth.

**J. Definitions beginning with the letter “J”. [RESERVED]**

**K. Definitions beginning with the letter “K”. [RESERVED]**

**L. Definitions beginning with the letter “L”.** **“LLDPE”** means linear low-density polyethylene.

**M. Definitions beginning with the letter “M”.**

(1) **“Material medium”** means any substance including, but not limited to, naturally heated fluids, brines, associated gases and steam in whatever form, found at any depth and in any position below the surface of the earth, which contains or transmits the natural heat energy of the earth, but excluding petroleum, oil, hydrocarbon gas or other hydrocarbon substances.

(2) **“Mg/l”** means milligrams per liter.

(3) **“Mg/kg”** means milligrams per kilogram.

(4) **“MIT”** means mechanical integrity test.

(5) **“Monitoring well”** means, for purposes of 19.11.4 NMAC, any well used to observe the level of the water and its temperature, pressure and chemistry in a shallow protected water aquifer above or near a potential geothermal resource.

**N. Definitions beginning with the letter “N”.** **“Notice”** means, for purposes of 19.11.4 NMAC, a written statement to the division that the permittee intends to do work.

**O. Definitions beginning with the letter “O”.** **“Observation well”** means any well used to observe the level of the water and its temperature, pressure and chemistry in an area of potential geothermal resource. This includes a thermal gradient well.

**P. Definitions beginning with the letter “P”.**

(1) **“Permittee”** means the person issued a permit by the director, or a person required to have a permit pursuant to 19.11.2 NMAC including a person who is required to have a permit but has not applied for or obtained a permit. The permittee shall be the owner of the geothermal lease or geothermal interest and any well(s) or facility located upon the geothermal lease or interest or the operator of the geothermal facility if it is someone other than the owner of the geothermal lease or interest.

(2) **“Pit”** means a drilling, workover or blow-down pit, which is constructed with the intent that the pit will hold liquids and mineral solids. Pits may be used for one or more wells and must be located at one of the associated permitted well drilling locations or surface facilities. Any containment structure such as a pond or other impoundment that holds only fresh water that has not been treated for drilling, workover or blow-down purposes is not a pit.

(3) **“Production well”** means a well which is used to transmit fluids derived from a geothermal resource to the surface where the fluids are available for industrial, commercial or domestic purposes.

**Q. Definitions beginning with the letter “Q”. [RESERVED]**

**R. Definitions beginning with the letter “R”. “Responsible official”** means a corporate officer (president, secretary, treasurer or vice president), general partner or proprietor or public principal executive officer or elected official who is authorized to execute documents on behalf of the corporation, entity or office.

**S. Definitions beginning with the letter “S”.**

(1) **“Sump”** means a subgrade impermeable vessel that is partially buried in the ground, is in contact with the ground surface or is a collection device incorporated within a secondary containment system, which remains predominantly empty, serves as a drain or receptacle for de minimis releases on an intermittent basis and is not used to store, treat, dispose of or evaporate products or geothermal wastes. Buckets, pails, drip pans or similar vessels that are not in contact with the ground surface are not sumps.

(2) **“Suspension of operations”** means the cessation of drilling, re-drilling or alteration of casing before the well is officially abandoned or completed.

**T. Definitions beginning with the letter “T”. “TDS”** means total dissolved solids.

**U. Definitions beginning with the letter “U”.**

(1) **“UIC”** means Underground Injection Control.

(2) **“UTM”** means Universal Transverse Mercator.

**V. Definitions beginning with the letter “V”. [RESERVED]**

**W. Definitions beginning with the letter “W”.**

(1) **“Waste”** means any physical waste including, but not limited to:

(a) underground waste resulting from inefficient, excessive or improper use, or dissipation of geothermal energy, or of any geothermal resource pool, reservoir or other source; or the locating, spacing, constructing, equipping, operating or producing of any well in a manner that results, or tends to result, in reducing the quantity of geothermal energy to be recovered from any geothermal area; or

(b) the inefficient above-ground transporting and storage of geothermal energy; and the locating, spacing, equipping, operating or producing of any well or injection well in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of geothermal energy; the escape into the open air from a well of steam or hot water that exceeds what is reasonably necessary in the efficient development or production of a well.

(2) **“Well”** means, (a) a bored, drilled or driven shaft; (b) a dug hole whose depth is greater than the largest surface dimension; (c) an improved sinkhole; or (d) a subsurface fluid distribution system. [19.11.1.7 NMAC - N, 2/27/2018]

#### **19.11.1.8 CONFIDENTIAL INFORMATION PROTECTION:**

**A.** Applicants or permittees who submit information to the division may claim such information as confidential. Applicants or permittees must assert any claim of confidentiality at the time of submittal.

**B.** To claim confidentiality of information in a submittal, the applicant or permittee must clearly mark each page in the document on which the applicant or permittee claims there is confidential information, and submit to the division a written description of the basis for the claim of confidentiality and why the information meets the requirements for a claim of confidentiality at the time it submits the document to the division. The division shall review the claim of confidentiality based on the written submittal and determine whether the information may be maintained as confidential pursuant to the Inspection of Public Records Act, Section 14-2-1 et seq. NMSA 1978 (1993, as amended). The division shall determine whether the information may be maintained as confidential prior to reviewing an application or request for approval. If the division determines that information in a submittal is confidential, the division may require submission of redacted copies of the submittal for the public record.

**C.** If no claim of confidentiality is made at the time of submission, any such claims are deemed waived and the division may make the information available to the public without further notice.

**D.** The division will deny claims of confidentiality for the name and address of any applicant or permittee or any information that deals with the existence, absence or level of contaminants in drinking water or the document is otherwise publicly available.

**E.** Information the division determines is confidential may be disclosed to officers, employees or authorized representatives of the division, or may be used in any proceedings conducted pursuant to the Act when such information is essential to such proceeding. The division may close that part of a proceeding where confidential information covered by Section 71-2-8 NMSA 1978 is discussed by the division.

[19.11.1.8 NMAC - N, 2/27/2018]

**19.11.1.9 OTHER REQUIREMENTS:** A permittee shall allow any division employee upon notice and presentation of proper credentials to:

- A.** enter the property where wells are located or the facility at reasonable times;
- B.** inspect and copy records required by an abatement plan;
- C.** inspect any treatment works, monitoring and analytical equipment;
- D.** sample any wastes, ground water, surface water, stream sediment, plants, animals or vadose-zone material including vadose-zone vapor, geothermal resources or material medium;
- E.** use monitoring systems and wells under the permittee's control to collect samples of any media listed in Subsection D of 19.11.1.9 NMAC; and
- F.** gain access to off-site property the permittee does not own or control, but is accessible to the permittee through a third-party access agreement, provided the agreement allows it.

[19.11.1.9 NMAC - N, 2/27/2018]

**19.11.1.10 TRANSITIONAL PROVISIONS:** Pursuant to the Act, Section 71-9-11 NMSA 1978, all permits, orders and determinations issued pursuant to the Geothermal Resources Conservation Act shall be administered by the division and shall remain in effect as provided in 19.11.1.10 NMAC.

**A.** The permittee under any permit, order or determination issued pursuant to the GRCA which authorizes the drilling and operation of a geothermal well may apply at any time, pursuant to the Act and 19.11.1 through 19.11.4 NMAC, for the issuance of a geothermal well permit covering such well or the inclusion of the geothermal well in a geothermal facility permit. Upon issuance of the permit or inclusion of the well in the geothermal facility permit, the permit, order or determination issued pursuant to the GRCA shall expire.

**B.** A permittee under a permit, order or determination issued pursuant to the GRCA may seek a minor permit modification, as defined in 19.11.2.10 NMAC, and shall follow the procedures in 19.11.2 NMAC. Any modification other than a minor permit modification shall be considered an application for a new geothermal well permit pursuant to Subsection A of 19.11.1.10 NMAC. Any hearings initiated concerning a permit, order or determination issued pursuant to the GRCA shall be conducted in accordance with 19.11.3 NMAC.

**C.** All permits, orders or determinations issued pursuant to the GRCA shall expire five years from the effective date of 19.11.1 through 19.11.4 NMAC unless there is a pending application submitted pursuant to Subsection A of 19.11.1.10 NMAC.

[19.11.1.10 NMAC - N, 2/27/2018]

**HISTORY of 19.11.1 NMAC: [RESERVED]**