This rule was filed as Rule G-602.

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 14 GEOTHERMAL POWER
PART 102 BLOWOUT PREVENTION EQUIPMENT (BOPE)

19.14.102.1 ISSUING AGENCY: Energy and Minerals Department, Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico.
[Recompiled 12/31/01]

19.14.102.2 SCOPE: [RESERVED]
[Recompiled 12/31/01]

19.14.102.3 STATUTORY AUTHORITY: [RESERVED]
[Recompiled 12/31/01]

19.14.102.4 DURATION: [RESERVED]
[Recompiled 12/31/01]

19.14.102.5 EFFECTIVE DATE: [November 15, 1983]
[Recompiled 12/31/01]

19.14.102.6 OBJECTIVE: [RESERVED]
[Recompiled 12/31/01]

19.14.102.7 DEFINITIONS: [RESERVED]
[Recompiled 12/31/01]

19.14.102.8 BLOWOUT PREVENTION EQUIPMENT (BOPE) The following standards are not given as final blowout prevention equipment requirements for the drilling of any geothermal resources well but are given as guidelines for the preparation of a minimum blowout prevention program for certain categories of wells.

A. Using Mud as the Drilling Fluid.

(1) API Class 2M-A or 2M-RR. For wells in geothermal resources areas known to contain geothermal fluids at a temperature greater than 212 degrees F. at depths less than 2,000 feet, and geothermal exploratory wells in areas where subsurface temperatures and pressures are unknown and the proposed depth of the well is less than 2,000 feet.

(a) An annular BOPE and a spool, fitted with a low-pressure safety pop-off and blow-down line, installed on the conductor pipe may be required for wells in the above categories to ensure against possible gas blowouts during the drilling of the surface casing hole.

(b) Annular BOPE or pipe-ram/blind-ram BOPE with minimum working-pressure ratings of 2,000 psi shall be installed on the surface casing so that the well can be shut in at any time.

(c) Hydraulic actuating system.

(d) Kelly cock.

(e) A fill-up line installed above the BOPE.

(f) A kill line installed below the BOPE, leading directly to the mud pumps and fitted with a valve through which cement could be pumped if necessary.

(g) A blow-down line fitted with two valves installed below the BOPE. The blow-down line shall be directed in such a manner so as to permit containment of produced fluids and to minimize any safety hazard to personnel.

(h) All lines and fittings shall be steel and have a minimum working-pressure rating of 1,000 psi.

(i) Return mud temperatures shall be entered into the log book after each joint of pipe is drilled down. See Rule G-106(b) [now Subsection B of 19.14.25.8 NMAC].

(2) API Class 2M-RSRA or Eqivalent. For wells in geothermal resources areas known to contain geothermal fluids at temperatures greater than 212 degrees F. at depths more than 2,000 feet, and geothermal

exploratory wells in areas where subsurface temperatures and pressures are unknown and the proposed depth of the well is more than 2,000 feet.

(a) An annular BOPE and a spool, fitted with a low-pressure safety pop-off and blow-down line, installed on the conductor pipe may be required to ensure against possible gas blowouts during the drilling of the surface casing hole.

(b) Annular BOPE and pipe-ram/blind-ram BOPE with a minimum working-pressure rating of 2,000 psi shall be installed so that the well can be shut in at any time. The double-ram preventer shall have a mechanical locking device.

(c) A hydraulic actuating system utilizing an accumulator of sufficient capacity and a high pressure auxiliary backup system. This total system shall be equipped with dual controls; one at the driller's station and one at least 50 feet away from the wellhead.

(d) Kelly cock and standpipe valve.

(e) A fill-up line installed above the BOPE.

(f) A kill line installed below the BOPE, leading directly to the mud pumps and fitted with a valve through which cement could be pumped if necessary.

(g) A blow-down line fitted with two valves installed below the BOPE. The blow-down line shall be directed in such a manner so as to permit containment of produced fluids and to minimize any safety hazard to personnel.

(h) All lines and fittings shall be steel and have a minimum working-pressure rating of at least that of the BOPE.

(i) Return mud temperatures shall be entered into the log book after each joint of pipe is drilled down. (See Rule G-106(b).) [now Subsection B of 19.14.25.8 NMAC].

B. Using Air as the Drilling Fluid. API Class 2M RSRdG (with Banjo Box). For wells in geothermal resources areas where it is known that dry steam exists at depth and/or formation pressures are known to be less than hydrostatic:

(1) A rotating head installed at the top of the BOPE stack.

(2) A pipe-ram/blind-ram BOPE, with a minimum working-pressure rating of 2,000 psi installed below the rotating head so that the well can be shut in at any time.

(3) A banjo box steam diversion unit installed below the double-ram BOPE fitted with an approved muffler in good working condition.

(4) A blind-ram BOPE, with a minimum working-pressure rating of 2,000 psi installed below the banjo box so that the well can be shut in while removing the rotating head during bit changes.

(5) A gate valve, with a suitable minimum working-pressure rating installed below the blind ram so that the well can be shut in after the well has been completed, prior to removal of the BOPE stack.

(6) All ram-type BOPE shall have a hydraulic actuating system utilizing an accumulator of sufficient capacity and a high-pressure backup system.

(7) Dual control stations for hydraulic backup system: one at the driller's station and the other at least 50 feet away from the wellhead.

(8) Float and standpipe valves.

(9) A kill line installed below the BOPE, leading directly to the mud pumps and fitted with a valve through which cement could be pumped if necessary.

(10) All lines and fittings must be steel and have a minimum working-pressure rating of 1,000 psi.

Note: If any portion of a well is drilled using mud, Class 2M BOPE shall be installed on the surface casing so that the well can be shut-in at any time.

[Recompiled 12/31/01]

HISTORY OF 19.14.102 NMAC:

Pre-NMAC History: The material in this Part was derived from that previously filed with the State Records Center and Archives:

Rule G-602, Blowout Prevention Equipment (BOPE), 11/1/83.

History of Repealed Material: [RESERVED]