



**MEMORANDUM**  
OCCIDENTAL OIL AND GAS

November 19, 1996

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

TO: Donna Williams (Burlington) FAX NO: 688-6007  
George Sharpe (Merrion) FAX NO: 505-326-5900  
Wade Howard (Texaco) FAX NO: 688-4831  
Mike Stogner (NMOCD) FAX NO: 505-827-8177

FROM: Rick Foppiano *REF*

SUBJECT: Draft of Cover Letter to Stogner Regarding Our Work Product

For your review, please find attached a cover letter to communicate our proposed revisions to Rule 111 to the OCD. I plan to mail both the cover letter and the Rule 111 revisions to Mike, copy to the cc list, this Friday. Please give me any feedback or comments before then.

REF:ref  
attachment

**RULE 111 WORK GROUP**

Richard E. Foppiano, Facilitator  
P. O. Box 50250  
Midland, Texas 79710-0250

**DRAFT**

November 19, 1996

Michael E. Stogner, Chief Hearing Officer  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Please find enclosed a proposed revision of Rule 111 dealing with deviated, directional and horizontal wellbores. This is the finished product of the Rule 111 Work Group that you commissioned on September 30, 1996, whose participants included:

- ▶ Donna Williams, \_\_\_\_\_ for Burlington Resources in Midland, TX;
- ▶ George Sharpe, Manager of Oil & Gas Investments for Merrion Oil & Gas Corp in Farmington, NM;
- ▶ Wade Howard, Engineer's Assistant for Texaco in Midland, TX; and
- ▶ Rick Foppiano, Regulatory Affairs Advisor for OXY in Midland, TX.

The proposed changes attempt to streamline the regulatory process for most directional and horizontal wells. Our shared vision was that any directional/horizontal well with a bottomhole location that was not encroaching on the outer boundary of the applicable unit should be approved through the District Office via the drilling permit process. Wells with bottomhole locations that do encroach on the outer boundaries should be handled as unorthodox wells according to the process outlined in Rule 104. The group felt strongly that the surface location of a directional or horizontal well was really immaterial for spacing purposes, since NSL's (non-standard locations) are now pool-specific. About the only directional/horizontal situation that would require a formal application, notice and opportunity for hearing would be when an operator proposes to combine proration units that are located on different leases. Some additional improvements were made to the deviation rules to clarify the requirements for wells with excessive deviation.

To validate our proposed rewrite, our Work Group examined the applications that had been filed under current Rule 111. There were nineteen applications filed by nine different operators in the Southeast, and ten applications filed by four operators in the Northwest. Our conclusion was that a vast majority of these formal applications would be unnecessary if the



Michael E. Stogner, Chief Hearing Officer

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November 19, 1996

proposed changes were adopted. We also reviewed the OCD and BLM forms and concluded that no modifications were needed.

All in all, the Work Group feels that significant benefits will result from these proposed changes, and they include:

- ▶ reduced workload on operators and NMOCD staff through elimination of the formal application process for wells that aren't encroaching on their offsets; and
- ▶ better understanding and more consistency in the regulatory process associated with orthodox and unorthodox directional/horizontal wells.

Therefore, we respectfully request that this proposal be considered for rulemaking as soon as possible. Let me say that you picked a fine bunch of people to work on this project, and it has been a pleasure to be associated with them. Thanks for the opportunity!

Sincerely,

**DRAFT**

Richard E. Foppiano  
Facilitator

REF/ref  
Enclosure

cc: Jerry Sexton, Supervisor  
NMOCD District I  
P. O. Box 1980  
Hobbs, New Mexico 88240

Tim Gum, Supervisor  
NMOCD District II  
P. O. Drawer DD  
Artesia, New Mexico 88210

Frank Chavez, Supervisor  
NMOCD District III  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

Bill Lemay, Director  
NMOCD  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Rule III Work Group (w/o enclosure)

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**MEMORANDUM**  
OCCIDENTAL OIL AND GAS

November 18, 1996

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

TO: Donna Williams (Burlington)  
George Sharpe (Merrion)  
Wade Howard (Texaco)  
Mike Stogner (NMOCD)

FAX NO: 688-6007  
FAX NO: 505-326-5900  
FAX NO: 688-4831  
FAX NO: 505-827-8177

FROM: Rick Foppiano *RFJ*

SUBJECT: Fourth (And Almost-Final) Draft of Proposed Changes to Rule 111

Please find attached the fourth draft, based on our meeting yesterday. Same format as before, the first version is the old rule with the proposed additions and deletions. The second version (called the clean one) is a version with all of the struck out language removed.

***If you have any final comments, please get them to me before the end of the week, November 22, 1996.***

REF:ref  
attachments

C:\DATA\WP\DOCUME-1\R111\_4.WP6

Draft No. 4

Date: 11-18-96

(Note => [~~This indicates proposed deletions~~] This indicates proposed additions.)

#### RULE 111-Deviation Tests/Deviated Wells and Directional Wells:

A. Definitions: The following definitions shall apply to this Rule:

(1) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.

(2) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.

(3) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.

(4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.

(5) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

(6) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.

(7) Project Area - ~~a designated area consisting of multiple~~ [means one or more] drilling units [which are to be dedicated to the project well].

(8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a ~~drilling unit, approved Enhanced Oil Recovery (EOR) project or in the case of multiple drilling units, the project area,~~ inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).

(9) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(10) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of

compass degrees.

(11) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.

(12) Terminus - means the farthest point attained along the wellbore.

(13) Producing Interval - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus [~~and within the producing area~~].

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any producing interval outside of the producing area of a drilling unit, approved project area or approved EOR project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line of the drilling unit, EOR project or project area, whichever is applicable, [and] the Division Director shall [may] require that a directional survey be run to establish the location of the producing interval(s). If the results of the directional survey indicate that the producing interval is less than 85% of the minimum setback requirements from the outer boundary of the applicable unit or, in the case of an approved unorthodox location, less than 85% of the approved setback requirements from the outer boundary of the applicable unit, then the well shall be considered unorthodox. To obtain authority to produce such well, the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

Upon request from the Division Director, any vertical or deviated well [~~which was deviated in an indeterminate direction or toward the vertical~~] shall be directionally surveyed. The Supervisor of the appropriate Division District shall be notified of the approximate time any directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

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**C. Deviated Wellbores:**

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

- (a) straighten a crooked hole by deviating towards the vertical;
- (b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);
- (c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing [both] the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

~~[(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.]~~

(4) [(5)] The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

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#### D. Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively approve a directional wellbore project when:~~

- ~~— (a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s), substantially in the form of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public Land Survey;~~
- ~~— (b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~
- ~~— (c) the project area includes either a single drilling unit or multiple contiguous drilling units; and;~~
- ~~— (d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.]~~

(1) Directional Drilling Within a Drilling Unit or an EOR Project. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division.

~~[(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, which shall include:]~~

#### (2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill within the project area may be granted by the Supervisor of the appropriate Division District if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing an application with the Division Director, copy to the appropriate OCD District Supervisor, and include:

- (1) a statement addressing the reason(s) for directionally drilling the subject well;

(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface location and producing interval, the producing area for the project well or wells, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a vertically oriented plan view (cross-sectional view) for the subject well or wells, including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(4) a horizontal plan view for the subject well or wells and the proposed project area and associated drilling units, the producing area and producing interval [its spacing unit showing the drilling unit and drilling-producing window], including the estimated azimuth and maximum length of the lateral(s) to be drilled;

(5) a type log section on which is identified the top and bottom of the subject pool; and,

(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(7) A copy of the operating agreement, communitization agreement or other agreement covering the leases in the project area.

(c)The Division Director may approve the application for a project area with multiple leases upon receipt of waivers from the parties entitled to notice or if no one has entered an objection within 20 days after the application was received by the Director.

(d)[(3)] The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that are developed or traversed by the producing interval of the directional wellbore or wellbores, plus any standard proration units that are developed by vertical wellbores within the project area. [for that pool any portion of which is within a distance of the producing lateral of the directional wellbore not greater than the footage setback distance for locating a vertical well from the outer

~~boundary of a spacing unit for that pool.]~~

(3) Unorthodox Locations. If the proposed producing interval of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed. If the directional survey indicates that any part of the producing interval is outside of the producing area, or, in the case of an approved unorthodox location, less than the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

~~[E. — Requirements/Conditions of Administrative Approval:~~

~~(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.~~

~~(2) Any order issued by the Director approving an application for a directional wellbore shall require that:~~

~~(a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCB and to the NMOCB district office in which the well is located, and~~

~~(b) the Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to a well until the operator has submitted an affidavit that all such directional surveys have been filed.]~~

E [F]. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make



a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.

(9)

## ***CLEAN VERSION***

### **RULE 111-Deviation Tests/Deviated Wells and Directional Wells:**

#### **A. Definitions: The following definitions shall apply to this Rule:**

- (1) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.**
- (2) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.**
- (3) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.**
- (4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.**
- (5) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.**
- (6) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.**
- (7) Project Area - a designated area consisting of multiple drilling units.**
- (8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a drilling unit, approved Enhanced Oil Recovery (EOR) project or, in the case of multiple drilling units, the project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).**
- (9) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.**
- (10) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.**
- (11) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.**
- (12) Terminus - means the farthest point attained along the wellbore.**

(13) **Producing Interval** - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(14) **Lateral** - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) **Unorthodox** - means any producing interval outside of the producing area of a drilling unit, approved project area or approved EOR project.

**B. Deviation Tests:**

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line of the drilling unit, EOR project or project area, whichever is applicable, the Division Director shall require that a directional survey be run to establish the location of the producing interval(s). If the results of the directional survey indicate that the producing interval is less than 85% of the minimum setback requirements from the outer boundary of the applicable unit or, in the case of an approved unorthodox location, less than 85% of the approved setback requirements from the outer boundary of the applicable unit, then the well shall be considered unorthodox. To obtain authority to produce such well, the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

Upon request from the Division Director, any vertical or deviated well shall be directionally surveyed. The Supervisor of the appropriate Division District shall be notified of the approximate time any directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

**C. Deviated Wellbores:**

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

(a) straighten a crooked hole by deviating towards the vertical;

(b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

#### D. Directional Wellbores:

(1) Directional Drilling Within a Drilling Unit or an EOR Project. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division.

(2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill within the project area may be granted by the Supervisor of the appropriate Division District if the producing interval is entirely within the producing area

or at an unorthodox location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing an application with the Division Director, copy to the appropriate OCD District Supervisor, and include:

(1) a statement addressing the reason(s) for directionally drilling the subject well;

(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface location and producing interval, the producing area for the project well or wells, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a vertically oriented plan view (cross-sectional view) for the subject well or wells, including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(4) a horizontal plan view for the subject well or wells and the proposed project area and associated drilling units, the producing area and producing interval, including the estimated azimuth and maximum length of the lateral(s) to be drilled;

(5) a type log section on which is identified the top and bottom of the subject pool; and,

(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(7) A copy of the operating agreement, communitization agreement or other agreement covering the leases in the project area.

(c) The Division Director may approve the application for a project area with multiple leases upon receipt of waivers from the parties entitled to notice or if no one has entered an objection within 20 days after the application was received by the Director.

(d) The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that are developed or traversed by the producing interval of the directional wellbore or wellbores, plus any standard proration units that are developed by vertical wellbores within the project area.

(3) **Unorthodox Locations.** If the proposed producing interval of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

(4) **Directional Surveys Required.** A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed. If the directional survey indicates that any part of the producing interval is outside of the producing area, or, in the case of an approved unorthodox location, less than the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

E. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.



MEMORANDUM  
OCCIDENTAL OIL AND GAS

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

November 8, 1996

TO: Donna Williams (Burlington) FAX NO: 688-6007  
George Sharpe (Merrion) FAX NO: 505-326-5900  
Wade Howard (Texaco) FAX NO: 688-4831  
Mike Stogner (NMOCD) FAX NO: 505-827-8177

FROM: Rick Foppiano *Rufk*

SUBJECT: Third (And Semi-Final) Draft of Proposed Changes to Rule 111

Please find attached the third draft, based on our meeting yesterday. Same format as before, the first version is the old rule with the proposed additions and deletions. The second version (called the clean one) is a version with all of the struck out language removed. Some comments on changes in this third draft:

1. After much discussion, the team decided to require submittal of a copy of a working interest owner agreement covering the multiple leases in a project area. The problem here was how to protect royalty owners in this quasi-unit situation, but not structure a requirement that was impractical (such as 100% approval of working interest owners and/or royalty owners). Recognizing that working interest owners are contractually bound to protect their royalty owner or owners by virtue of the lease, the team decided that the NMOCD should focus only on working interest owner agreement. Such agreement can be obtained in a myriad of ways, through operating agreements, unit agreements, equity agreements, and so on. So making the applicant submit a copy of whatever agreement he feels constitutes sufficient working interest owner approval should be workable. If he elected to do something that gets him in trouble with his royalty owners, then he is liable. Hence, the language in subsection (2)(b) of part D was changed.

2. The team considered the suggestion of a 15% allowance on deviated and directional wellbores, and based on feedback from Mike and George it was deemed to have unanimous approval. Language was drafted and inserted into subsection (5) of part D. The proposed rule still requires any bottomhole location that is **planned** to be unorthodox to be approved through the Rule 104 process. After the well is drilled, however, the 15% tolerance comes into play, to allow for some inaccuracy in

②

Rick Foppiano  
November 8, 1996  
Page 2

hitting a target.

3. The team then reviewed George's suggested rewrite of part D dealing with the process of getting NMOCD approval for planned directional wells. They did not agree with George that the rule needed to spell out in more detail what information needed to be submitted on directional wells. Donna and Wade had reviewed the forms since the last meeting and concluded that all necessary information, with the possible exception of the cross-section view, would be contained within the APD package. The cross-section was not deemed to be necessary in most directional drilling situations. Other states don't require such information either, so there seem to be no compelling reasons for adding to our burden. Consequently, George's proposed rewrite of part D was not approved. (*George: I am not sure we adequately discussed your suggestions regarding multiple wells in a project area. Look this latest draft over and see how it fits.*)

4. We reviewed other cleanup and fine tuning suggestions; we adopted some and rejected others.

Donna, Wade and I scheduled a conference call for November 18, 1996 at 2:00 PM. If Mike and George would like to join in, we would love to have the participation. Since it might be the last review of the draft changes prior to the hearing process, it could be important. Between now and then the three of us will review the cases that Mike sent us (thanks, Mike!) and test them against the latest draft to see if we get the "right" answer. We also plan to run these proposed changes through our drilling and operations people one more time. At this point, it looks like we will have a final draft to give to Mike the week of November 18. I will draft a letter from all of us to Mike (or Bill Lemay, if you prefer) <sup>requesting</sup> ~~requested~~ that the proposed changes be docketed for hearing as soon as possible. I would also like to convey complete support for the suggested changes from the four industry representatives, so let me know if this latest draft has any language that prevents any company from taking that position publicly. We can discuss next steps in the conference call, but I am just trying to keep everyone thinking ahead.

REF:ref  
attachments

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Draft No. 3

Date: 11-7-96

(Note => [~~This indicates proposed deletions~~] This indicates proposed additions.)

**RULE 111-Deviation Tests/Deviated Wells and Directional Wells:**

A. Definitions: The following definitions shall apply to this Rule:

(1) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.

(2) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.

(3) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.

(4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.

(5) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

(6) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.

(7) Project Area - ~~a designated area consisting of multiple [means one or more] drilling units [which are to be dedicated to the project well].~~

(8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit, approved Enhanced Oil Recovery (EOR) project or, in the case of multiple proration units, the project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).

(9) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(10) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of

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compass degrees.

(11) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.

(12) Terminus - means the farthest point attained along the wellbore.

(13) Bottomhole Location [Producing Interval] - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus [~~and within the producing area~~].

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved EOR project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line of the drilling unit, EOR project or project area, whichever is applicable, [and] the Division Director shall [may] require that a directional survey be run to establish the bottomhole location [location of the producing interval(s)]. Once the directional survey is run, the well becomes subject to the same provisions of this rule that apply to all directional wellbores.

Upon request from the Division Director, any vertical or deviated well [~~which was deviated in an indeterminate direction or toward the vertical~~] shall be directionally surveyed.

C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

(a) straighten a crooked hole by deviating towards the vertical;

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(b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing [both] the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

~~[(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.]~~

~~[(4) [(5)] The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.~~

#### D. Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively approve a directional wellbore project when:~~

~~— (a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s), substantially in the form~~

~~of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public Land Survey;~~

- ~~(b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~
- ~~(c) the project area includes either a single drilling unit or multiple contiguous drilling units; and,~~
- ~~(d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.]~~

(1) Directional Drilling Within Drilling Units and EOR Projects. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District for:

- (a) directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved EOR project; or
- (b) directional wellbores at unorthodox bottomhole locations previously approved by the Division.

~~[(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, which shall include:]~~

(2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill within the project area may be granted by the Supervisor of the appropriate Division District:

- (1) if the bottomhole location is within the producing area; or
- (2) if the wellbore is at an unorthodox bottomhole location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

- (1) a statement addressing the reason(s) for directionally drilling the subject well;
- (2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well or wells, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;
- (3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;
- (4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location [~~its spacing unit showing the drilling unit and drilling-producing window~~], including the estimated azimuth and maximum length of the lateral(s) to be drilled;
- (5) a type log section on which is identified the top and bottom of the subject pool; and,
- (6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.
- (7) A copy of the operating agreement, communitization agreement or other agreement covering the leases in the project area.

(c)[(3)] The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore [~~for that pool any portion of which is within a distance of the producing lateral of the directional wellbore not greater than the footage setback distance for locating a vertical well from the outer boundary of a spacing unit for that pool~~].

(3) Unorthodox Bottomhole Locations. Except as otherwise provided in part (D)(5) of this rule, if the proposed bottomhole location of any directional wellbore is unorthodox, the applicant shall

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file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

(5) Results of Post-Drilling Directional Surveys. If the results of a directional survey run as a requirement set out herein indicate that the bottomhole location is less than 85% of the minimum setback requirements from the outer boundary of the applicable unit or, in the case of an approved unorthodox location, less than 85% of the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

~~E. Requirements/Conditions of Administrative Approval:~~

~~(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.~~

~~(2) Any order issued by the Director approving an application for a directional wellbore shall require that:~~

~~(a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCB and to the NMOCB-district office in which the well is located; and,~~

~~(b) the Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to a well until the operator has submitted an affidavit that all such directional surveys have been filed.]~~

E [F]. Additional Matters:

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(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.

## ***CLEAN VERSION:***

### **RULE 111-Deviation Tests/Deviated Wells and Directional Wells:**

#### **A. Definitions: The following definitions shall apply to this Rule:**

- (1) **Deviated Well** - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.
- (2) **Directional Well** - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.
- (3) **Vertical Well** - means a well that does not have an intentional departure or course deviation from the vertical.
- (4) **Drilling Unit** - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.
- (5) **Wellbore** - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.
- (6) **Project Well** - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well
- (7) **Project Area** - a designated area consisting of multiple drilling units.
- (8) **Producing Area** - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit, approved Enhanced Oil Recovery (EOR) project or, in the case of multiple proration units, the project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).
- (9) **Penetration Point** - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.
- (10) **Azimuth** - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.
- (11) **Kick-off Point** - means the point at which the wellbore is intentionally deviated from vertical.



(12) Terminus - means the farthest point attained along the wellbore.

(13) Bottomhole Location - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved EOR project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line of the drilling unit, EOR project or project area, whichever is applicable, the Division Director shall require that a directional survey be run to establish the bottomhole location. Once the directional survey is run, the well becomes subject to the same provisions of this rule that apply to all directional wellbores.

Upon request from the Division Director, any vertical or deviated well shall be directionally surveyed.

C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

(a) straighten a crooked hole by deviating towards the vertical;

(b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

D. Directional Wellbores:

(1) Directional Drilling Within Drilling Units and EOR Projects. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District for:

(a) directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved EOR project; or

(b) directional wellbores at unorthodox bottomhole locations previously approved by the Division.

(2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill within the project area may be granted by the Supervisor of the appropriate Division District:

(1) if the bottomhole location is within the producing area; or

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(2) if the wellbore is at an unorthodox bottomhole location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

- (1) a statement addressing the reason(s) for directionally drilling the subject well;
- (2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well or wells, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;
- (3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;
- (4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location, including the estimated azimuth and maximum length of the lateral(s) to be drilled;
- (5) a type log section on which is identified the top and bottom of the subject pool; and,
- (6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.
- (7) A copy of the operating agreement, communitization agreement or other agreement covering the leases in the project area.

(c) The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional

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wellbore.

(3) Unorthodox Bottomhole Locations. Except as otherwise provided in part (D)(5) of this rule, if the proposed bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

(5) Results of Post-Drilling Directional Surveys. If the results of a directional survey run as a requirement set out herein indicate that the bottomhole location is less than 85% of the minimum setback requirements from the outer boundary of the applicable unit or, in the case of an approved unorthodox location, less than 85% of the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

E. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.



**MEMORANDUM**  
**OCCIDENTAL OIL AND GAS**

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

November 7, 1996

TO: Donna Williams (Burlington) FAX NO: 688-6007  
George Sharpe (Merrion) FAX NO: 505-326-5900  
Wade Howard (Texaco) FAX NO: 688-4831  
Mike Stogner (NMOCD) FAX NO: 505-827-8177

FROM: Rick Foppiano

SUBJECT: Substantive Changes Proposed By George

Please find attached some suggested changes that George faxed to me yesterday. Many of his suggestions related to language cleanup, which we can discuss this afternoon. But George has proposed a complete rewrite of subsection (D) dealing with directional wellbores and the process of getting NMOCD approval. I am faxing this to you now, and I will have copies available this afternoon. But I thought you might want to look it over before we meet, so here it is!

REF:ref  
attachments

## George's Recommendations November 7, 1996

### D. Directional Wellbores:

#### (1) Approval of a Project Area:

(a) If the project area consists of a single lease or a portion thereof, an approved EOR Unit Boundary, or a single Drilling Unit, no prior approval of the project area is required.

(b) If the project area consists of multiple leases that are not unitized or currently within a single drilling unit, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

(1) a statement addressing the reason(s) for directionally drilling wells within the project area;

(2) a plat indicating the section, township and range in which the well or wells are to be drilled, the proposed project area, the producing area for the project well or wells, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a statement and or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) A statement that all lessees or unleased mineral interest owners of leases contained within the project area have agreed, by virtue of an operating agreement,

#### (2) Directional Drilling in a Project Area

(a) A permit to directionally drill a wellbore within an approved Project Area may be granted by the Supervisor of the appropriate Division District if:

(1) the bottomhole location is within the producing area; or

(2) the bottomhole location is within an unorthodox location previously approved by the Division.

(b) An APD for a directional well shall include:

(1) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(2) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location, including the estimated azimuth and maximum length of the lateral(s) to be drilled; and

(3) a type log section on which is identified the top and bottom of the subject pool.

(3) The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore.

(4) Unorthodox Bottomhole Locations. If the proposed bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(5) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

(6) Results of Post-Drilling Directional Surveys. If the results of a directional survey run as a requirement set out herein indicate that the bottomhole location is less than 85% of the minimum setback requirements from the outer boundary of the producing area, or, in the case of an approved unorthodox location, less than 85% of the approved setback requirements from the outer boundary of the producing area, then the operator shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.



**MEMORANDUM**  
OCCIDENTAL OIL AND GAS

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

October 31, 1996

TO: Donna Williams (Burlington) FAX NO: 688-6007  
George Sharpe (Merrion) FAX NO: 505-326-5900  
Wade Howard (Texaco) FAX NO: 688-4831  
Mike Stogner (NMOCD) FAX NO: 505-827-8177

FROM: Rick Foppiano *RF*

SUBJECT: Second Draft of Proposed Changes to Rule 111

Please find attached the second draft, based on our meeting yesterday. Same format as before, the first package (pages 1-8) is the old rule with the proposed additions and deletions. The second package (pages 8-12) is a version with all of the struck out language removed. I think we are going in the right direction because the cleaner version is getting smaller. Some comments on changes in this second draft:

1. I made some enhancements to the definitions of "producing areas" and "unorthodox" to make them apply to EOR projects.
2. Although I think it's value is minimal, I left in the language for OCD approval of Deviated Wellbores (Part C). I read the Texas rules, and they address the same issues in a similar (although less wordy) fashion.
3. Based on the team's discussion yesterday, I drafted some language to deal with deviated wells that exceed 5 degrees/500 feet. Basically, I made it just like Texas. When you have to run the directional survey because your maximum horizontal displacement is greater than the distance from the nearest boundary line, you then become a "directional" well and therefore subject to the same provisions as any other directional well.
4. I fine-tuned the language in part D dealing with directional wells. Please look it over, and I hope it is simpler and still reflects our concept. I also talked to George and he convinced me to take out the 50' allowance language, because an operator should not be allowed to plan for an unorthodox location at the outset. The 50' allowance really comes into play after you have drilled your well and run the

(2)

Rick Foppiano  
October 31, 1996  
Page 2

directional survey, so the 50' allowance language is in D (5) "Results of Post-Drilling Surveys."

5. As regards directional drilling in situations where you have multiple leases in a project area, Donna has invited her landman to our next meeting to get some expert input into this issue. George has also agreed to rethink this issue and provide some suggestions before our next meeting.

6. Note that new language has been added to require directional surveys on all directionally-drilled wells before an allowable can be assigned. Accordingly, Part E of the old rule was eliminated.

7. The section that George suggested we add is contained in D (5), since it only applies to directionally-drilled wells. Since every directional well has a producing area associated with it, I didn't think we needed all the language George proposed. Also, the team did not feel comfortable with requiring a well to be plugged back and redrilled; the remedies should be left to the operator since he can't get an allowable until he gets an approved bottomhole location. For this reason, the team also didn't see the need for George's language in (2) of his hand-written comments. Sorry, George; but let us know if you think we goofed here.

8. In the last sentence of the rule, I added in some language that allows for a hearing but doesn't require one. I hate absolute requirements for a hearing.

Donna, Wade and I are scheduled to meet again here in Midland at 1:30 PM on November 7, 1996. We will review this latest draft and any suggestions, and hopefully come up with a last draft. Once again, keep those suggestions and comments coming. My fax number is 915-685-5742.

I think we are close guys! Still a few loose ends, but overall I feel pretty good about a mid-November deadline. See ya next week!

REF:ref  
attachments

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C:\DATA\WP\DOCUME-1\RULE111\_WP6

Draft No. 2Date: 10-31-96(Note => [~~This indicates proposed deletions~~] This indicates proposed additions.)

## RULE 111-Deviation Tests/Deviated Wells and Directional Wells:

A. Definitions: The following definitions shall apply to this Rule:

- (1) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.
- (2) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.
- (3) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.
- (4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.
- (5) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.
- (6) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.
- (7) Project Area - a designated area consisting of multiple [~~means one or more~~] drilling units [~~which are to be dedicated to the project well~~].
- (8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit, approved Enhanced Oil Recovery (EOR) project or, in the case of multiple proration units, the project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).
- (9) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.
- (10) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of

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compass degrees.

(11) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.

(12) Terminus - means the farthest point attained along the wellbore.

(13) Bottomhole Location [Producing Interval] - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus [~~and within the producing area~~].

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved EOR project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line, [and] the Division Director shall [may] require that a directional survey be run to establish the bottomhole location [location of the producing interval(s)]. Once the directional survey is run, the well becomes subject to the same provisions of this rule that apply to all directional wellbores.

Upon request from the Division Director, any vertical or deviated [~~well which was deviated in an indeterminate direction or toward the vertical~~] shall be directionally surveyed.

C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

(a) straighten a crooked hole by deviating towards the vertical;

(b) side track junk in the hole by deviating in an indeterminate direction (no intentional

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azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing both the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.

(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

D. Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively approve a directional wellbore project when:~~

~~(a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s), substantially in the form of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public~~

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~~Land Survey;~~

- ~~—— (b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~
- ~~—— (c) the project area includes either a single drilling unit or multiple contiguous drilling units; and;~~
- ~~—— (d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.]~~

(1) Directional Drilling Within Drilling Units and EOR Projects. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District for:

- (a) directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved EOR project; or
- (b) directional wellbores at unorthodox bottomhole locations previously approved by the Division.

~~[(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, which shall include:]~~

(2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill a wellbore within the project area may be granted by the Supervisor of the appropriate Division District:

- (1) if the bottomhole location is within the producing area; or
- (2) if the wellbore is at an unorthodox bottomhole location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

- (1) a statement addressing the reason(s) for directionally drilling the subject well;

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(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location [its spacing unit showing the drilling unit and drilling-producing window], including the estimated azimuth and maximum length of the lateral(s) to be drilled;

(5) a type log section on which is identified the top and bottom of the subject pool; and,

(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(7) A statement that all lessees or unleased mineral interest owners of leases contained within the project area have agreed, by virtue of an operating agreement, communitization agreement or other means, on the proposed operation.

~~(c)(3)~~ The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore [for that pool any portion of which is within a distance of the producing lateral of the directional wellbore not greater than the footage setback distance for locating a vertical well from the outer boundary of a spacing unit for that pool].

(3) Unorthodox Bottomhole Locations. If the proposed bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal

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process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

(5) Results of Post-Drilling Directional Surveys. If the results of a directional survey run as a requirement set out herein indicate that the bottomhole location is more than 50 feet outside of the producing area, or more than 50 feet closer to the drilling unit boundary for an approved unorthodox location, then the operator shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

~~[E. Requirements/Conditions of Administrative Approval:~~

~~(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.~~

~~(2) Any order issued by the Director approving an application for a directional wellbore shall require that:~~

~~— (a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCB and to the NMOCB-district office in which the well is located; and,~~

~~— (b) the Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to a well until the operator has submitted an affidavit that all such directional surveys have been filed.]~~

E [F]. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the

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expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.

**CLEAN VERSION:****RULE 111-Deviation Tests/Deviated Wells and Directional Wells:**

A. Definitions: The following definitions shall apply to this Rule:

- (1) **Deviated Well** - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.
- (2) **Directional Well** - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.
- (3) **Vertical Well** - means a well that does not have an intentional departure or course deviation from the vertical.
- (4) **Drilling Unit** - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.
- (5) **Wellbore** - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.
- (6) **Project Well** - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.
- (7) **Project Area** - a designated area consisting of multiple drilling units.
- (8) **Producing Area** - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit, approved Enhanced Oil Recovery (EOR) project or, in the case of multiple proration units, the project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).
- (9) **Penetration Point** - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.
- (10) **Azimuth** - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.
- (11) **Kick-off Point** - means the point at which the wellbore is intentionally deviated from vertical.



(12) **Terminus** - means the farthest point attained along the wellbore.

(13) **Bottomhole Location** - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(14) **Lateral** - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved EOR project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest boundary line, the Division Director shall require that a directional survey be run to establish the bottomhole location. Once the directional survey is run, the well becomes subject to the same provisions of this rule that apply to all directional wellbores.

Upon request from the Division Director, any vertical or deviated shall be directionally surveyed.

C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

(a) straighten a crooked hole by deviating towards the vertical;

(b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

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(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing both the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.

(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

D. Directional Wellbores:

(1) Directional Drilling Within Drilling Units and EOR Projects. A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District for:

(a) directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved EOR project; or

(b) directional wellbores at unorthodox bottomhole locations previously approved by the Division.

(2) Directional Drilling in a Project Area:

(a) If the project area consists of a single lease or a portion thereof, a permit to directionally drill a wellbore within the project area may be granted by the Supervisor of the appropriate Division District.

(1) if the bottomhole location is within the producing area, or

(2) if the wellbore is at an unorthodox bottomhole location previously approved by the Division.

(b) If the project area consists of multiple leases, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

(1) a statement addressing the reason(s) for directionally drilling the subject well;

(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location, including the estimated azimuth and maximum length of the lateral(s) to be drilled;

(5) a type log section on which is identified the top and bottom of the subject pool; and,

(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(7) A statement that all lessees or unleased mineral interest owners of leases contained within the project area have agreed, by virtue of an operating agreement, communitization agreement or other means, on the proposed operation.

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(c) The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore.

(3) Unorthodox Bottomhole Locations. If the proposed bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

(5) Results of Post-Drilling Directional Surveys. If the results of a directional survey run as a requirement set out herein indicate that the bottomhole location is more than 50 feet outside of the producing area, or more than 50 feet closer to the drilling unit boundary for an approved unorthodox location, then the operator shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

E. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.



**MEMORANDUM**  
OCCIDENTAL OIL AND GAS

REGULATORY AFFAIRS AREA  
TECHNICAL SERVICES TEAM  
MIDLAND, TEXAS

October 22, 1996

TO: Donna Williams (Burlington) FAX NO: 688-6007  
George Sharpe (Merrion) FAX NO: 505-326-5900  
Wade Howard (Texaco) FAX NO: 688-4831  
Mike Stogner (NMOCD) FAX NO: 505-827-~~7177~~  
8177

FROM: Rick Foppiano *Rick*

SUBJECT: First Draft of Proposed Changes to Rule 111

Please find attached my first attempt at language changes, based on our meeting yesterday. The first package (pages 1-6) is the old rule with the proposed new language. The second package (pages 7-12) is a version with all of the struck out language removed. The latter is much easier to read, but we need the former as the format for our proposed changes. For those of you that were not there, Donna, Wade and I met for about 3 hours, created process diagrams to understand the current structure of Rule 111, and (using diagrams again) clarified where we wanted to be. The proposed rule changes are the first attempt to get us where we want to be. Several issues are still unresolved:

1. When to require directional surveys on deviated wells, and what the rule should say about unintentional unorthodox locations, off-lease situations, and so on. I think everyone agrees that there should be some leeway, and at first glance the 50' rule appears reasonable. However, because of time constraints, the group did not discuss these issues in depth.
2. Multiple leases in a "Project Area." Note that we re-defined a project area to be a designated area consisting of **multiple leases** only. How do we insure that a requisite level of agreement has been reached by the parties on the multiple leases inside the project area? What role (if any) should the NMOCD play in this proposed operation? I threw some language in this section based on the downhole commingling rules as they apply in different ownership situations.

Donna, Wade and I are scheduled to meet again here in Midland at 1:30 PM on October 30, 1996. Our plan is to review these drafts and make changes. If George or Mike have any suggestions before then, please feel free to get them to me (by e-mail or otherwise) and we

Rick Foppiano  
October 22, 1996  
Page 2

will discuss. My fax number is 915-685-5742. If you want, we can arrange to have a conference call that afternoon with the both of you. Otherwise, Donna, Wade and I can make our changes and get everyone back together for another meeting. Just let me know your thoughts.

I really enjoy working with such talented and bright people, Mike. You did good putting this group together.

REF:ref  
attachments

C:\DATA\WP\DOCUME-1\RULE111.WP6

Draft No. 1

Date 10-22-96

(Amended version => [~~This indicates proposed deletions~~] This indicates proposed additions.)

#### RULE 111-Deviation Tests/Deviated Wells and Directional Wells:

A. Definitions: The following definitions shall apply to this Rule:

(1) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.

(2) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.

(3) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.

(4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.

(5) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

(6) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.

(7) Project Area - a designated area consisting of multiple [~~means one or more~~] drilling units [~~which are to be dedicated to the project well~~].

(8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit (or, in the case of multiple proration units, the project area) inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).

(9) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(10) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.

(11) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.

(12) Terminus - means the farthest point attained along the wellbore.

(13) Bottomhole Location [~~Producing Interval~~] - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus [~~and within the producing area~~].

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved secondary or tertiary recovery project.

#### B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole and the Division Director may require that a directional survey be run to establish the bottomhole location [~~location of the producing interval(s)~~].

*(Note: the team proposed an approach similar to Texas. If the calculated maximum horizontal displacement revealed a possibility that the bottomhole location might be off-lease, then a directional survey should be required. If the directional survey showed a bottomhole location (as it is defined above) off-lease, then the operator should not be allowed to produce the well until he steers it back to an orthodox location, or pools with the other lease. If the bottomhole location is on the subject lease but at an unorthodox location, then an NSL order should be required pursuant to the Rule 104 F (3) process. Some leeway should be allowed however, and the current 50' allowance in part (C)(4) of this rule needs to be preserved. I have not yet tackled rule language.)*

Upon request from the Division Director, any well which was deviated in an indeterminate direction or toward the vertical shall be directionally surveyed.

#### C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of

an operator to drill a deviated wellbore or to deviate an existing wellbore to:

- (a) straighten a crooked hole by deviating towards the vertical;
- (b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);
- (c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

- (a) be filed in duplicate and shall be accompanied by plats showing both the surface location of the subject well, its spacing unit and all adjoining spacing units;
- (b) state the reason(s) for deviating the subject well; and
- (c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.

(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

D. Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively~~

approve a directional wellbore project when:

- ~~\_\_\_\_\_ (a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s), substantially in the form of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public Land Survey;~~
- ~~\_\_\_\_\_ (b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~
- ~~\_\_\_\_\_ (c) the project area includes either a single drilling unit or multiple contiguous drilling units, and;~~
- ~~\_\_\_\_\_ (d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.]~~

(1) Directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved secondary or tertiary recovery project are hereby authorized. Directional wellbores at unorthodox bottomhole locations previously approved by the Division are also authorized. Directional wellbores with a bottomhole locations no more than 50 feet from a producing area or an approved unorthodox bottomhole location are also authorized.

(2) If the bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain Division approval of the unorthodox bottomhole location.

(3) Directional Drilling in a Project Area:

(a) When the project area consists of a single lease or a portion thereof, directional wellbores located inside the producing area are hereby authorized. Directional wellbores at unorthodox bottomhole locations previously approved by the Division are also authorized. Directional wellbores with bottomhole locations no more than 50 feet from a producing area or approved unorthodox bottomhole location are also authorized.

~~[(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, which shall include:]~~

(b) When the project area consists of multiple leases, administrative approval of the

project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

- (1) a statement addressing the reason(s) for directionally drilling the subject well;
- (2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;
- (3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;
- (4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location [its spacing unit showing the drilling unit and drilling-producing window], including the estimated azimuth and maximum length of the lateral(s) to be drilled;
- (5) a type log section on which is identified the top and bottom of the subject pool; and,
- (6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.
- (7) A statement that all lessees or unleased mineral interest owners of leases contained within the project area have agreed, by virtue of an operating agreement or other means, on the proposed operation.

(c)If the bottomhole location of any directional wellbore in a project area is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(d) [(3)] The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore [for that pool any portion of which is within a distance of the producing lateral of the directional wellbore not greater than the footage setback distance for locating a vertical well from the outer boundary of a spacing unit for that pool].

E. Requirements/Conditions of Administrative Approval:

(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

(2) Any order issued by the Director approving an application for a directional wellbore shall require that:

(a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCD and to the NMOCD-district office in which the well is located; and,

(b) the Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to a well until the operator has submitted an affidavit that all such directional surveys have been filed.

F. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and hearing.

**CLEAN VERSION:****RULE 111-Deviation Tests/Deviated Wells and Directional Wells:**

A. **Definitions:** The following definitions shall apply to this Rule:

(1) **Deviated Well** - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B and C.

(2) **Directional Well** - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-D.

(3) **Vertical Well** - means a well that does not have an intentional departure or course deviation from the vertical.

(4) **Drilling Unit** - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.

(5) **Wellbore** - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

(6) **Project Well** - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.

(7) **Project Area** - a designated area consisting of multiple drilling units.

(8) **Producing Area** - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a proration unit (or, in the case of multiple proration units, the project area) inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).

(9) **Penetration Point** - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(10) **Azimuth** - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.

(11) **Kick-off Point** - means the point at which the wellbore is intentionally deviated from vertical.

(12) **Terminus** - means the farthest point attained along the wellbore.

(13) Bottomhole Location - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(14) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(15) Unorthodox - means any bottomhole location outside of the producing area of a drilling unit, approved project area or approved secondary or tertiary recovery project.

B. Deviation Tests:

Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole and the Division Director may require that a directional survey be run to establish the bottomhole location.

*(Note: the team proposed an approach similar to Texas. If the calculated maximum horizontal displacement revealed a possibility that the bottomhole location might be off-lease, then a directional survey should be required. If the directional survey showed a bottomhole location (as it is defined above) off-lease, then the operator should not be allowed to produce the well until he steers it back to an orthodox location, or pools with the other lease. If the bottomhole location is on the subject lease but at an unorthodox location, then an NSL order should be required pursuant to the Rule 104 F (3) process. Some leeway should be allowed however, and the current 50' allowance in part (C)(4) of this rule needs to be preserved. I have not yet tackled rule language.)*

Upon request from the Division Director, any well which was deviated in an indeterminate direction or toward the vertical shall be directionally surveyed.

C. Deviated Wellbores:

(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:

- (a) straighten a crooked hole by deviating towards the vertical;
- (b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);

(c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.

(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.

(3) Applications for administrative approval for a deviated well shall:

(a) be filed in duplicate and shall be accompanied by plats showing both the surface location of the subject well, its spacing unit and all adjoining spacing units;

(b) state the reason(s) for deviating the subject well; and

(c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.

(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.

(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

#### D. Directional Wellbores:

(1) Directional wellbores with bottomhole locations inside the producing area of a drilling unit or approved secondary or tertiary recovery project are hereby authorized. Directional wellbores at unorthodox bottomhole locations previously approved by the Division are also authorized. Directional wellbores with a bottomhole locations no more than 50 feet from a producing area or an approved unorthodox bottomhole location are also authorized.

(2) If the bottomhole location of any directional wellbore is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District

Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain Division approval of the unorthodox bottomhole location.

(3) Directional Drilling in a Project Area:

(a) When the project area consists of a single lease or a portion thereof, directional wellbores located inside the producing area are hereby authorized. Directional wellbores at unorthodox bottomhole locations previously approved by the Division are also authorized. Directional wellbores with bottomhole locations no more than 50 feet from a producing area or approved unorthodox bottomhole location are also authorized.

(b) When the project area consists of multiple leases, administrative approval of the project area must be obtained by filing a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and include:

(1) a statement addressing the reason(s) for directionally drilling the subject well;

(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface and bottomhole location, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;

(3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;

(4) a horizontal plan view for the subject well and the proposed project area and associated drilling units, the producing area and bottomhole location, including the estimated azimuth and maximum length of the lateral(s) to be drilled;

(5) a type log section on which is identified the top and bottom of the subject pool; and,

(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was

sent.

(7) A statement that all lessees or unleased mineral interest owners of leases contained within the project area have agreed, by virtue of an operating agreement or other means, on the proposed operation.

(c) If the bottomhole location of any directional wellbore in a project area is unorthodox, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox bottomhole location.

(d) The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of the number of standard proration units (or approved non-standard proration and spacing units) that overly the bottomhole location of the directional wellbore.

E. Requirements/Conditions of Administrative Approval:

(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.

(2) Any order issued by the Director approving an application for a directional wellbore shall require that:

(a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCD and to the NMOCD-district office in which the well is located; and,

(b) the Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to a well until the operator has submitted an affidavit that all such directional surveys have been filed.

F. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond

posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and hearing.