



September 12, 2013

Via Email to veronica.larson@rrc.state.tx.us

Veronica Larson
Oil and Gas Division
Railroad Commission of Texas
P.O. Box 12967
Austin, Texas 78701-2967

Re: Informal Comments on Draft Amendments to §§3.9, 3.36, and 3.46

Dear Ms. Larson,

Denbury Onshore, LLC ("Denbury"), a subsidiary of Denbury Resources Inc., appreciates this opportunity to submit informal comments on the Railroad Commission's proposed draft amendments to §§3.9, 3.36, and 3.46 relating to disposal wells, operations in hydrogen sulfide areas and fluid injection into productive reservoirs. Denbury participated in and supports the comments prepared by the Texas Oil and Gas Association ("TXOGA") through its membership in TXOGA. However, there are areas where TXOGA has identified areas of concern and requested additional discussions with the Railroad Commission, and while Denbury supports such discussions, Denbury would like to propose revisions for the Commission's consideration in the discussion process. Denbury is attaching recommendations to address its concerns regarding the proposed changes.

We thank the Commission for the opportunity to submit informal comments on the proposed amendments. Please consider these concerns in the drafting of the amendments. Please feel free to contact me with any questions regarding the comments.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Melissa Denard", is written over a horizontal line.

Melissa Denard
Senior Oil and Gas Counsel

Comments Submitted by Denbury Onshore, LLC
Proposed Changes to §§3.9, 3.36, and 3.46

§3.46 Fluid Injection into Productive Reservoirs.

<u>Citation</u>	<u>Concern and Suggested Change</u>
3.46(a)(2)(A)	<p>The definition of "Affected Person" has been changed from "a person who has suffered or will suffer..." to a "person who may suffer..." This change to "may" makes the definition of affected person overly broad and could include anyone who can show that they may be affected at some point in the future. This definition should be changed back to "has suffered or will suffer" to properly focus on those persons who can show that they have already suffered an injury or economic damage or will suffer an injury or economic damage.</p> <p>Suggested revision: "A person who may<u>has suffered or will suffer</u> actual injury or economic damage..."</p>
3.46 (a)(2)(A)	<p>The definition of "Affected Person" has also been expanded to include "for all tracts within one-half mile of the proposed injection well, all lessees of record for tracts that have no designated operator and all owners of record of unleased mineral interests." The new language is overly broad and is also not clear on how to determine "of record". It further assumes that such parties are affected for injection well purposes. Although similar language appears in Rule 37, the purpose of Rule 37 is protection against encroachment and drainage which is different from affected persons for purposes of injection wells.</p> <p>Suggested revision: Delete new language from definition of affected person.</p>
3.46 (a)(2)(B)	<p>The definition of Commercial disposal well in the injection well rules is confusing and does not seem to belong in the injection well rules when it is already covered in the disposal rules of 3.9.</p> <p>Suggested revision: Delete.</p>
3.46(a)(2)(G)	<p>The definition of "Owner of Record" has been changed to include a non-exclusive list of the methods for determining the owner of record. It will be difficult for applicants to know when they have done enough research and could require applicants to conduct full courthouse research and obtain a title opinion on who is the owner. It is also unclear as to whether this new defined term only relates to owners of surface tracts or also lessees and owners of unleased mineral interests (as those terms are used in 3.46 (a)(2)(A)).</p> <p>Suggested revision: "<u>Owner of Record - Person or persons shown as owner of a tract by the tax records, real property records or probate records of the</u></p>

	<u>county where the property is located.</u>
3.46(b)(2)(A), (B), and (C).	<p>The terminology “disposal well” in these sections is confusing and seems to refer to 3.9, not 3.46. This disposal well language appears in several places throughout 3.46 where it appears that language may have been copied directly from 3.9.</p> <p>Suggested revision: Change to “injection well”.</p>
3.46(d)(3)(B) (II).	<p>The new language in this subsection will have a huge impact on timing. First, it will cause an increase in drill time because applicants will have to call out the logging trucks two times. In addition, this requires the well to be drilled prior to sending in the injection permit, which could push out injection operations many months. Although 3.46(d)(3)(B)(IV) allows for an exception upon filing a written request with the director, such an exception would require additional time and the commission could receive exception requests with every application. The proposed rule should provide for a defined exception up front which would allow the applicant to meet this requirement by providing this recent data for a nearby well, and would only require the applicant to provide the data if there are no state records providing such data.</p> <p>Suggested revision: “(II) if the application is for a new injection well to be drilled <u>and there are no state public records providing information on water zones for nearby wells</u>, once the injection well has been drilled, the permittee shall submit to the commission a complete log of the well from surface to total depth, <u>or a complete log of a nearby well from surface to total depth prepared after [effective date of the new rule]</u>. A “nearby well” <u>shall mean a well within a ¼ mile radius of the new injection well.</u></p>
3.46(d)(3)(E)	<p>The proposed rule requires applicants to provide a table identifying wells that are not adequately cased and/or cemented and unplugged, improperly plugged or orphaned and penetrate the top of the proposed injection interval. The proposed language does not provide any guidance on what “adequately” or “improperly” means. This should be clarified to provide that these terms mean adequate or proper in accordance with the rules in place at the time of casing or cementing or plugging and will be based on the location of the USDWs at the time of those activities. If this clarification is not made, this provision could be interpreted to mean that all of the wells may have to be re-plugged, cemented, etc. even if they were done properly in accordance with the rules and location of the USDWs at that time and even if the injection interval is properly isolated. Based on the workshop, it does not appear to be the intent of the Commission to require applicants to re-plug, cement or case wells that were properly plugged, cemented, or cased in accordance with the rules and standards in place and location of the USDWs at the time they were plugged, cemented, or cased. We propose</p>

	<p>adding two new definitions to the definitions section to clarify – “adequately case and/or cemented” and “improperly plugged.”</p> <p>Suggested revision: <u>“Adequately cased and/or cemented – cased and/or cemented in accordance with the rules and standards in effect and location of underground source of drinking water or usable-quality water at the time the wells were cased and/or cemented.”</u></p> <p><u>“Improperly plugged – improperly plugged in accordance with the rules and standards in effect and location of underground sources of drinking water or usable-quality water at the time the wells were plugged.”</u></p>
3.46(d)(3)(E)	<p>In addition, the “orphaned well” language in this subsection is problematic because it does not properly focus on the mechanical integrity of the well, but merely on the status of production reports and organization reports. Since the other language related to plugging and casing and cementing properly focuses on the mechanical integrity of the well, the orphaned well language should be deleted. As a first alternative to the deletion, this language should be clarified to focus on orphaned wells that are unplugged or improperly plugged. As a final alternative, the orphaned well language should at least provide that the orphaned well be orphaned for a certain period of time such as 5 years so as not to capture wells where an operator may be a little late with filing an organization report. Finally, the various subparts of this sentence should be reorganized and clearly numbered to reduce confusion. The current organization of the sentence is unclear as to whether the “not” goes with each term in the list and also whether the phrase “that penetrate the top of the proposed injection interval” goes with each term in the list.</p> <p>Suggested revision: <u>“The table shall identify any wells that penetrate the top of the proposed injection interval and that are: (i) not adequately cased and/or cemented, and (ii) unplugged, or (iii) improperly plugged, or orphaned and penetrate the top of the proposed injection interval.”</u></p> <p>Alternative #1: <u>“The table shall identify any wells that penetrate the top of the proposed injection interval and that are: (i) not adequately cased and/or cemented, and (ii) unplugged, (iii) improperly plugged, or (iv) orphaned and unplugged or improperly plugged and penetrate the top of the proposed injection interval.”</u></p> <p>Alternative #2: <u>“The table shall identify any wells that penetrate the top of the proposed injection interval and that are: (i) not adequately cased and/or cemented, and (ii) unplugged, (iii) improperly plugged, or (iv) orphaned for at least 5 consecutive years at the time the application is filed and penetrate the top of the proposed injection interval.”</u></p>

3.46 (d)(5)	<p>This is another commercial disposal well provision that does not seem to belong in the injection well rules and creates confusion. It appears to be copied from the disposal well rules, 3.9, and should be left in the disposal well rules and deleted from 3.46.</p> <p>Suggested revision: Delete</p>
3.46 (e)(1).	<p>The proposed rule now requires that an applicant mail the required notice by both regular mail and certified mail or private commercial courier. This is unnecessary and overkill. The additional regular mail requirement should be removed and the proposed rule revised as follows: "The applicant shall give notice as required by paragraph (2) of this section by mailing by either USPS certified mail, return receipt requested or a private commercial carrier with documented delivery confirmation ..."</p>
3.46 (e)(3)(B),	<p>The notice of application form contains references to "oil and gas waste". This appears to be a typo and was likely carried over from another rule. These references should be changed to "fluids" since 3.46 relates to the injection of "fluid."</p> <p>Suggested revision: Replace with "fluids."</p>
3.46 (g)(1)-(6)	<p>There appears to be some numbering errors in this section. It jumps from (g)(2) to (g)(5).</p> <p>Suggested revision: renumber correctly.</p>
3.46(g)(1)	<p>The area of review provision requires applicants to identify those wells which are not adequately cased and/or cemented, unplugged or improperly plugged ..." Similar to our comment on 3.46(d)(3)(E), the proposed rule does not provide any guidance on how to determine what is inadequate or improper. This should be clarified to provide that these terms mean adequate or proper in accordance with the rules in place at the time of casing or cementing or plugging and will be based on the location of the USDWs at the time of those activities. Based on the workshop comments, it appears that it is not the intent of the Commission to require applicants to re-plug, cement or case wells that were properly plugged, cemented, or cased in accordance with the rules and standards in place and location of the USDWs at the time they were plugged, cemented, or cased. As stated above, we propose adding two new definitions to the definitions sections to clarify – "adequately case and/or cemented" and "improperly plugged."</p> <p>Suggested revision: <u>"Adequately cased and/or cemented – cased and/or cemented in accordance with the rules and standards in effect and location of underground source of drinking water or usable-quality water at the time the wells were cased and/or cemented."</u></p>

	<p><u>“Improperly plugged – improperly plugged in accordance with the rules and standards in effect and location of underground sources of drinking water or usable-quality water at the time the wells were plugged.”</u></p>
<p>3.46(g)(1).</p>	<p>In addition to the above, the new “orphaned wells” language in 3.46(g)(1) is problematic because it does not properly focus on the mechanical integrity of the well, but merely on the status of production reports and organization reports. Based on this, the director “shall not” approve an application if an orphaned well is located within the area of review even if there is nothing wrong with the well itself. Since the first portion of this provision related to plugging and casing and cementing properly focuses on the mechanical integrity of the well, the orphaned well language should be deleted. In the alternative, this orphaned well language should be clarified to focus on orphaned wells that will result in a material increase in the risk of fluid movement into USDWs. In addition, if the orphaned well language is retained, the “shall not” language should be softened by adding language to allow the director to request additional information to determine if the particular orphaned well increases the risk of fluid movement into the USDWs and then allow the director have the option to deny the permit if there is a greater risk. The current language is not clear on whether the director is not precluded from making such a review and determination. As a second alternative to deleting the language, the orphaned well language should at the very least provide that the orphaned well be orphaned for a certain period of time such as 5 years so as not to capture wells where an operator may be a little late with filing an organization report.</p> <p>Suggested revision: Delete orphaned well language. The director shall not approve a permit application under this section for an injection well for which the area of review includes any orphaned wells that penetrate the top of the injection interval.</p> <p>Alternative revision #1: <u>“If the area of review includes any orphaned wells that penetrate the top of the injection interval, the director may request additional information or action from the applicant to determine if the orphaned wells will result in a material increase in the risk of fluid movement into underground sources of drinking water or to the surface. The director may deny shall not approve a permit application under this section for an injection well for which the area of review includes any orphaned wells that penetrate the top of the injection interval and will result in a material increase in the risk of fluid movement into underground sources of drinking water or to the surface.”</u></p> <p>Alternative revision #2: <u>“The director may deny shall not approve a permit application under this section for an injection well for which the area of review includes any orphaned wells that penetrate the top of the injection interval for at least 5 consecutive years at the time the application is filed.”</u></p>

3.46(g)(1)	Finally, the "public record" language in 3.46(g)(1) is unclear as to which public records it is referring. This should be clarified to refer to the Railroad Commission records.
3.46(g)(2)	See comment to 3.46(e)(1) above. The additional regular mail requirement should be removed and the proposed rule revised as follows: "The applicant shall give notice as required by paragraph (4) of this section by mailing by either USPS certified mail, return receipt requested or a private commercial carrier with documented delivery confirmation ..."
3.46(h)(2), (3) and (4)	These sections contain "disposal well" language. These references seem to belong in 3.9, not 3.46, and are likely typos from when the language was copied directly from 3.9. Suggested revision: change to "injection well."
3.46(h)(2) and (3)	<p>The new casing requirements do not address the movement of UQW and USDWs over time. In the event the UQW or USDW changes, a well that was once properly cased and cemented in accordance with these rules may fall out of compliance even if the injection zone is properly isolated. In addition, the proposed language does not address wells that were properly cased and cemented in accordance with the standards in effect at the time they were cased and cemented. The proposed language should apply to newly drilled injection wells, not the conversion of existing wells. Applicants should not be required to meet these requirements for existing wells so long as the wells comply with 3.46 (h)(1) and the injection zone is properly isolated.</p> <p>Suggested revision: "(2) The director shall not approve an application for a <u>newly drilled injection well permit...</u>" and "(3) The director shall not approve an application for a <u>newly drilled injection well permit</u> under this section ..."</p>
3.46(j)(1)(D)	<p>See comment to 3.46(d)(3)(B) (II) above. This subsection should be revised in a similar manner.</p> <p>Suggested revision: "If the application is for a new injection well that will be drilled <u>and there are no state public records providing information on water zones for nearby wells</u>, once the well is drilled, a log of the well from surface to total depth, <u>or a log of a nearby well from surface to total depth prepared after [effective date of the new rule]</u> shall be submitted to the commission.</p>
3.46(j)(1)(K)	This subsection refers to standard conditions if the well is a commercial disposal well. This subsection is exactly the same as 3.9(j)(1)(K) and appears to have copied to 3.46 when the entire permit conditions section was copied into 3.46. It is confusing to have this language in both 3.9 and

	<p>3.46. Since 3.9 deals with commercial disposal wells and 3.46 deals with injection of fluids into reservoirs productive of oil, gas or other geothermal resources, it appears that it is most appropriate to delete this subsection (K) from 3.46 and leave it in 3.9 where it belongs.</p> <p>Suggested revision: delete subsection (K).</p>
<p>3.46(n)(1)(I)</p>	<p>Same comment as 3.46(g)(1) above related to meaning of adequate and improper, and the orphaned well language. Finally, the various subparts of this sentence should be reorganized and clearly numbered to reduce confusion. The current organization of the sentence is unclear as to whether the “not” goes with each term in the list and also whether the phrase “that penetrate the top of the proposed injection interval” goes with each term in the list.</p> <p>Suggested revision to address adequate language: Add new defined terms to definitions section as discussed in 3.46(g)(1) above.</p> <p>Suggested revision to address orphaned well language and organization of sentence: “The applicant shall identify in the application the wells which appear from the review of such public records, or of which the applicant has knowledge, to be penetrate the top of the proposed injection interval and that are: <u>(i) not adequately cased and/or cemented, (ii) unplugged, or (iii) improperly plugged or orphaned, and that penetrate the top of the proposed injection interval.</u>”</p> <p>Alternative #1: “The applicant shall identify in the application the wells which appear from the review of such public records, or of which the applicant has knowledge, to be penetrate the top of the proposed injection interval and that are: <u>(i) not adequately cased and/or cemented, (ii) unplugged, (iii) improperly plugged, or (iv) orphaned and are unplugged or improperly plugged, and that penetrate the top of the proposed injection interval.</u>”</p> <p>Alternative #2: “The applicant shall identify in the application the wells which appear from the review of such public records, or of which the applicant has knowledge, to be penetrate the top of the proposed injection interval and that are: <u>(i) not adequately cased and/or cemented, (ii) unplugged, (iii) improperly plugged, or (iv) orphaned for at least 5 consecutive years at the time the application is filed, and that penetrate the top of the proposed injection interval.</u>”</p>

§3.9 Disposal Wells.

<u>Citation</u>	<u>Concern and Suggested Change</u>
3.9(a)(2)(A)	<p>The definition of "Affected Person" has been changed from "a person who has suffered or will suffer..." to a "person who may suffer..." This change to "may" makes the definition of affected person overly broad and could include anyone who can show that they may be affected at some point in the future. This definition should be changed back to "has suffered or will suffer" to properly focus on those persons who can show that they have already suffered an injury or economic damage or will suffer an injury or economic damage.</p> <p>Suggested revision: "A person who mayhas suffered or will suffer actual injury or economic damage..."</p>
3.9(a)(2)(A)	<p>The definition of "Affected Person" has also been expanded to include "for all tracts within one-half mile of the proposed injection well, all lessees of record for tracts that have no designated operator and all owners of record of unleased mineral interests." The new language is overly broad and is also not clear on how to determine "of record". It further assumes that such parties are affected. Although similar language appears in Rule 37, the purpose of Rule 37 is protection against encroachment and drainage which is different from affected persons for purposes of disposal operations.</p> <p>Suggested revision: Delete new language from definition of affected person.</p>
3.9(a)(2)(G)	<p>The definition of "Owner of Record" has been changed to include a non-exclusive list of the methods for determining the owner of record. It will be difficult for applicants to know when they have done enough research and could require applicants to conduct full courthouse research and obtain a title opinion on who is the owner. It is also unclear as to whether this new defined term only relates to owners of surface tracts or also lessees and owners of unleased mineral interests (as those terms are used in 3.46 (a)(2)(A)).</p> <p>Suggested revision: "<u>Owner of Record - Person or persons shown as owner of a tract by the tax records, real property records or probate records of the county where the property is located.</u></p>
3.9(c)(1)	<p>The technical basis for the new geological requirements related to the 250' 100' is not clear. As long as the applicant can show that the injection interval and UQW and USDWs are separated by impervious beds, the distance does not matter. The original language in the first section was adequate for protection of the USDWs and UQW.</p> <p>Suggested revision – Delete new 2nd and 3rd sentences in 3.9(c)(1).</p>

<p>3.9(d)(3)(C)(ii).</p>	<p>The new language in this subsection will have a huge impact on timing. First, it will cause an increase in drill time because applicants will have to call out the logging trucks two times. In addition, this requires the well to be drilled prior to sending in the injection permit, which could push out injection operations many months. Although 3.9(d)(3)(C)(iv) allows for an exception upon filing a written request with the director, the proposed rule should provide for a defined exception up front which would allow the applicant to meet this requirement by providing this recent data for a nearby well, and would only require the applicant to provide the data if there are no state records providing such data.</p> <p>Suggested revision: <u>“(II) if the application is for a new well to be drilled and there are no state public records providing information on water zones for nearby wells, once the well has been drilled, the permittee shall submit to the commission a complete log of the well from surface to total depth, or a complete log of a nearby well from surface to total depth prepared after [effective date of the new rule]. A “nearby well” shall mean a well within a ¼ mile radius of the new well.</u></p>
<p>3.9(d)(3)(F)</p>	<p>The proposed rule requires applicants to provide a table identifying wells that are not adequately cased and/or cemented and unplugged, improperly plugged or orphaned and penetrate the top of the proposed injection interval. The proposed language does not provide any guidance on what “adequately” or “improperly” means. This should be clarified to provide that these terms mean adequate or proper in accordance with the rules in place at the time of casing or cementing or plugging and will be based on the location of the USDWs at the time of those activities. If this clarification is not made, this provision could be interpreted to mean that all of the wells may have to be re-plugged, cemented, etc. even if they were done properly in accordance with the rules and location of the USDWs at that time and even if the injection interval is properly isolated. Based on the workshop, this does not appear to be the intent of the Commission to require applicants to re-plug, cement or case wells that were properly plugged, cemented, or cased in accordance with the rules and standards in place and location of the USDWs at the time they were plugged, cemented, or cased. We propose adding two new definitions to the definitions section to clarify – “adequately case and/or cemented” and “improperly plugged.”</p> <p>Suggested revision: <u>“Adequately cased and/or cemented – cased and/or cemented in accordance with the rules and standards in effect and location of underground source of drinking water or usable-quality water at the time the wells were cased and/or cemented.”</u></p> <p><u>“Improperly plugged – improperly plugged in accordance with the rules and standards in effect and location of underground sources of drinking water or usable-quality water at the time the wells were plugged.”</u></p>

3.9(d)(3)(F)	<p>In addition, the “orphaned well” language in this subsection is problematic because it does not properly focus on the mechanical integrity of the well, but merely on the status of production reports and organization reports. Since the other language related to plugging and casing and cement properly focuses on the mechanical integrity of the well, the orphaned well language should be deleted. As a first alternative, this should be clarified to focus on orphaned wells that are not plugged or improperly plugged. As a final alternative, the orphaned well language should at least provide that the orphaned well be orphaned for a certain period of time such as 5 years so as not to capture wells where an operator may be a little late with filing an organization report. Finally, the various subparts of this sentence should be reorganized and clearly numbered to reduce confusion. The current organization of the sentence is unclear as to whether the “not” goes with each term in the list and also whether the phrase “that penetrate the top of the proposed injection interval” goes with each term in the list.</p> <p>Suggested revision: “The table shall identify any wells <u>that penetrate the top of the proposed injection interval and</u> that are: (i) not adequately cased and/or cemented, (ii) unplugged, or (iii) improperly plugged or orphaned and penetrate the top of the proposed injection interval.”</p> <p>Alternative #1: “The table shall identify any wells <u>that penetrate the top of the proposed injection interval and</u> that are: (i) not adequately cased and/or cemented, (ii) unplugged, (iii) improperly plugged, or (iv) orphaned and unplugged or improperly plugged and <u>penetrate the top of the proposed injection interval.</u>”</p> <p>Alternative #2: “The table shall identify any wells <u>that penetrate the top of the proposed injection interval and</u> that are: (i) not adequately cased and/or cemented, (ii) unplugged, (iii) improperly plugged, or (iv) orphaned for at least 5 consecutive years at the time the application is filed and <u>penetrate the top of the proposed injection interval.</u>”</p>
3.9(e)(1).	<p>The proposed rule now requires that an applicant mail the required notice by both regular mail and certified mail or private commercial courier. This is unnecessary and overkill. The additional regular mail requirement should be removed and the proposed rule revised as follows: “The applicant shall give notice as required by paragraph (2) of this section by mailing by either USPS certified mail, return receipt requested or a private commercial carrier with documented delivery confirmation ...”</p>
3.9(g)(1)	<p>The area of review provision requires applicants to identify those wells which are not adequately cased and/or cemented, unplugged or improperly plugged ...” Similar to our comment on 3.9(d)(3)(F), the proposed rule does not provide any guidance on how to determine what is inadequate or</p>

	<p>improper. This should be clarified to provide that these terms mean adequate or proper in accordance with the rules in place at the time of casing or cementing or plugging and will be based on the location of the USDWs at the time of those activities. Based on the workshop comments, it appears that it is not the intent of the Commission to require applicants to re-plug, cement or case wells that were properly plugged, cemented, or cased in accordance with the rules and standards in place and location of the USDWs at the time they were plugged, cemented, or cased. As stated above, we propose adding two new definitions to the definitions sections to clarify – “adequately case and/or cemented” and “improperly plugged.”</p> <p><u>Suggested revision: “Adequately cased and/or cemented – cased and/or cemented in accordance with the rules and standards in effect and location of underground source of drinking water or usable-quality water at the time the wells were cased and/or cemented.”</u></p> <p><u>“Improperly plugged – improperly plugged in accordance with the rules and standards in effect and location of underground sources of drinking water or usable-quality water at the time the wells were plugged.”</u></p>
3.46(g)(1).	<p>In addition to the above, the new “orphaned wells” language in 3.9(g)(1) is problematic because it does not properly focus on the mechanical integrity of the well, but merely on the status of production reports and organization reports. Based on this, the director “shall not” approve an application if an orphaned well is located within the area of review even if there is nothing wrong with the well itself. Since the first portion of this provision related to plugging and casing and cementing properly focuses on the mechanical integrity of the well, the orphaned well language should be deleted. In the alternative, this orphaned well language should be clarified to focus on orphaned wells that will result in a material increase in the risk of fluid movement into USDWs. In addition, if the orphaned well language is retained, the “shall not” language should be softened by adding language to allow the director to request additional information to determine if the particular orphaned well increases the risk of fluid movement into the USDWs then allow the director have the option to deny the permit if there is a greater risk. The current language is not clear on whether the director is not precluded from making such a review and determination. As a second alternative, the orphaned well language should at the very least provide that the orphaned well be orphaned for a certain period of time such as 5 years so as not to capture wells where an operator may be a little late with filing an organization report.</p> <p>Suggested revision: Delete orphaned well language. The director shall not approve a permit application under this section for a disposal well for which the area of review includes any orphaned wells that penetrate the top of the injection interval.</p>

	<p>Alternative revision #1: <u>"If the area of review includes any orphaned wells that penetrate the top of the injection interval, the director may request additional information or action from the applicant to determine if the orphaned wells will result in a material increase in the risk of fluid movement into underground sources of drinking water or to the surface. The director may deny shall not approve a permit application under this section for an injection well for which the area of review includes any orphaned wells that penetrate the top of the injection interval and will result in a material increase in the risk of fluid movement into underground sources of drinking water or to the surface unplugged or improperly plugged."</u></p> <p>Alternative revision #2: <u>"The director may deny shall not approve a permit application under this section for a disposal well for which the area of review includes any orphaned wells that penetrate the top of the injection interval for at least 5 consecutive years."</u></p>
3.9(g)(1)	Finally, the "public record" language in 3.9(g)(1) is unclear as to which public records it is referring. This should be clarified to refer to the Railroad Commission records.
3.9(g)(4)(B)	See comment to 3.9(e)(1) above. The additional regular mail requirement should be removed and the proposed rule revised as follows: "The applicant shall give notice as required by paragraph (4) of this section by mailing by either USPS certified mail, return receipt requested or a private commercial carrier with documented delivery confirmation ..."
3.9(h)(2) and (3)	The new casing requirements do not address the movement of UQW and USDWs over time. In the event the UQW or USDW changes, a well that was once properly cased and cemented in accordance with these may fall out of compliance even if the injection interval is properly isolated. In addition, the proposed language does not address wells that were properly cased and cemented in accordance with the standards in effect at the time they were cased and cemented. The proposed language should apply to newly drilled wells, not the conversion of existing wells. Applicants should not be required to meet these requirements for existing wells so long as the wells comply with 3.46 (h)(1) and the injection zone is properly isolated. Suggested revision: "(2) The director shall not approve an application for a <u>newly drilled disposal well permit...</u> " and "(3) The director shall not approve an application for a <u>newly drilled disposal well permit</u> under this section ..."
3.9(j)(1)(D)	See comment to 3.9(d)(3)(C)(ii) above. This subsection should be revised in a similar manner.

	<p>Suggested revision: "If the disposal well is a new well that will be drilled and there are no state public records providing information on water zones for nearby wells, once the well is drilled, a log of the well from surface to total depth, or a log of a nearby well from surface to total depth prepared after [effective date of the new rule] shall be submitted to the director.</p>
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