



DRAFT RULE CHANGES (1501:9-2-02)

(REV03/15)

1501:9-2-02 Horizontal well site construction.

This rule applies to a well site for the drilling of one or more horizontal wells and associated production operations. The well site shall be designed and constructed in a manner that supports the safe drilling and production operations of one or more horizontal wells, and in a manner that protects public health and safety and minimizes damage to natural resources by managing stormwater, protecting surface water and minimizing soil erosion. Compliance with this rule does not eliminate the requirement that a person comply with any applicable state or federal law.

(A) Chief's Order and document requirements

- (1) On and after the effective date of this rule, no person shall begin construction of a proposed well site prior to approval of an application by order of the chief.
- (2) On and after the effective date of this rule, no person shall alter a well site, at which a well has been spudded, in a manner that will result in a material modification of the well site without the prior approval by order of the chief.
- (3) All documents required to be submitted to the chief under this rule shall be submitted in an electronic format using a form prescribed by the chief or in a format that is acceptable to the chief.
- (4) The chief may require duplicate copies of paper documents in addition to the electronic submittal. Upon written request by the applicant, the chief may accept paper copies, in duplicate, in lieu of the electronic submittal.

(B) Application. An application for approval to construct a well site shall be filed with the chief on a form prescribed by the chief. The application may be filed at any time regardless of whether the applicant has applied for or received a permit under section 1509.06 of the Revised Code and shall contain all of the following:

- (1) The name and address of the applicant, and if a business entity or association, the name and address of the statutory agent;
- (2) The signature of the applicant. When an authorized agent of the applicant signs an application, the application shall be accompanied by a certified copy of the appointment of such agent;
- (3) The county, township, and section or lot number where the well site will be located, and a name for the proposed well pad;
- (4) Emergency contact information of the applicant, including the 911 address of the proposed well site;
- (5) Coordinates of the intersection of the centerline of the access road at the public right-of-way using latitude and longitude, in a format of decimal degrees, to a minimum of six significant figures; and
- (6) Well site plans submitted in accordance with paragraph (C) of this rule.



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- (C) Well site plans. The plans for a proposed well site shall be developed, signed, and sealed by a professional engineer. The plans shall be prepared using commonly accepted drafting standards and shall be clear, legible, and drawn to a scale that sufficiently shows all required information. Each plan sheet shall be American National Standards Institute (ANSI) size D, twenty-two by thirty-four inches. All elements required to be contained in the plans under paragraph (C) shall be located horizontally in relation to the North American Datum of 1983 and shall be located vertically in relation to the North American Vertical Datum 1988. The plans shall include the detailed drawings, plans and reports required under paragraphs (C)(1) to (C)(5) of this rule.

The chief may waive any item required to be submitted under paragraphs (C)(1) to (C)(5) of this rule upon written request by the applicant. The request shall be signed by the applicant and the professional engineer who prepared the well site plans and shall include a detailed explanation of the basis for the request and of the potential impacts to the proposed well site and the surrounding area. The request for a waiver shall be submitted with the application.

- (1) Detailed drawings. The detailed drawings shall include all of the following:
- (a) A title page that contains the name of the applicant; emergency contact information; the name of the proposed well pad; the county, township, and section or lot number where the proposed well site will be located; coordinates of the entrance intersection of the centerline of the access road at the public right-of-way using latitude and longitude, in a format of decimal degrees, to a minimum of six significant figures; and a sheet index;
 - (b) A plan sheet consisting of a color orthorectified aerial image with pixels no larger than one foot showing the location of the proposed well site;
 - (c) A plan sheet sealed by a professional surveyor showing the location of the proposed well site boundary. The plan sheet shall include the control points used to generate the map;
 - (d) A general layout, plan views, elevations, sections, and supplementary views that in conjunction with the specifications provide the working information related to all aspects of the proposed construction;
 - (e) The scale in feet, legend, graphical scale, and north arrow;
 - (f) The proposed and existing contours with an intermediate contour interval not greater than two feet and an index not greater than ten feet; and
 - (g) Unless already described in the reports and plans required under paragraph (C) of this rule, the applicant shall disclose the design considerations that were used to address paragraph (g)(i) to (g)(xvi) of this rule. The detailed drawings shall identify and locate all of the following items:
 - (i) The classified soil types for the area within one hundred feet of and within the proposed well site boundary. The classification shall be consistent with the United States Department of Agriculture soil series.



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(ii) Plugged wells, producing wells, and idle and orphaned wells, which may be determined using information available from the Ohio Department of Natural Resources and other publically available or readily accessible sources that are located within one hundred feet of and within the proposed well site boundary;

(iii) Structural and geotechnical components that are to be located within the proposed well site boundary, including those identified in the geotechnical report;

(iv) Geotechnical borings and other geotechnical investigative means, which are located within the proposed well site boundary, as identified in the geotechnical report;

(v) Boundaries of parcels of land, existing occupied and unoccupied structures, and existing utilities known to the applicant at the time of the design process that are located within one hundred feet of and within the proposed well site boundary;

(vi) All springs, wetlands, streams, lakes, rivers, ponds, creeks, and water wells, which may be identified using reasonably available public resources and a field review, within one hundred feet of and within the proposed well site boundary;

(vii) Surface and underground mines, which may be determined using information available from the Ohio Department of Natural Resources and other publically available or readily accessible sources, that the professional engineer determines may affect design and performance of the well site;

(viii) Any areas the applicant seeks to protect during construction of the proposed well site;

(ix) All risk zones and hazard areas delineated on the "National Flood Insurance Rate Map" within one hundred feet of and within the proposed well site boundary;

(x) All locations where materials that result from the construction, operation, or plugging of a horizontal well are planned to be used at the well site pursuant to section 1509.074 of the Revised Code and rules adopted under it;

(xi) Roads within the proposed well site boundary, including emergency access routes, signage to safely manage traffic flow on the site, the entrance to the well site, and any pull-off areas that may be used to manage excess traffic;

(xii) Pipes, ditches, and other conveyances, and hydraulic control structures located within the well site boundary, as identified in the stormwater hydraulic report and in the sediment and erosion control plan;

(xiii) All areas within one hundred feet of and within the proposed well site boundary that are located within the five-year time of travel associated with a public drinking water supply, as delineated or endorsed under the "Wellhead Protection and Source Water Assessment and Protection Programs";

xiv) All areas within one hundred feet of and within the proposed well site boundary that are located within the emergency management zone of a public water system intake;



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(xv) General location and construction details of the proposed well cellars; and

(xvi) Any other factors which the professional engineer determines may affect design and performance of the well site.

Unless already described in the reports and plans required under paragraph (C) of this rule, the applicant shall disclose the design considerations that were used to address paragraph (g)(i) to (g)(xvi) of this rule.

(h) Emergency release conveyance map. The emergency release conveyance map shall be included in the detail drawings or be submitted as part of the application for a permit to drill under section 1509.06 of the Revised Code. The emergency release conveyance map shall be on a separate sheet that identifies all of the following:

(i) Well pad downslope locations where response resources may be deployed for the purposes of containment in the event of an emergency release;

(ii) Nearest receiving streams, rivers, watercourses, ponds, lakes, or other bodies of water where fluids may migrate from the proposed well pad; and

(iii) Pipes, ditches, other conveyances, and hydraulic control structures identified in the stormwater hydraulic report and in the sediment and erosion control plan.

(2) Sediment and erosion control plan. The sediment and erosion control plan for the proposed well site shall describe procedures to minimize the discharge of construction related sediment to any area outside of the proposed well site boundary. In addition, the sediment and erosion control plan shall specifically comply with and include all of the following requirements:

(a) Sediment and erosion controls shall be suitable for the well site conditions and shall be consistent with generally accepted engineering design criteria and the controls comply with the manufacturer's specifications;

(b) A sediment basin or sediment trap if the proposed well site is within or includes a total contributing drainage area that is greater than five acres in size. The minimum capacity of the sediment basin or sediment trap shall be one hundred seventeen cubic yards and designed in accordance with the "Ohio Department of Natural Resources Rainwater and Land Development Manual". However, diversionary techniques to decrease drainage area size or sediment controls specifically designed for the equivalent capture efficiency may be used in lieu of the sediment basin or sediment trap;

(c) An identification of each location of each outlet of a confined discreet conveyance that may leave the proposed well site;

(d) A delineation of contributing drainage area boundaries and size, measured in acres, that will be used to design the proposed sediment and erosion controls;



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- (e) A description of the soil stabilization measures, including vegetation, mulch, and other means of controlling erosion, that will be used at the proposed well site. In addition, the description shall include a schedule of the implementation of the soil stabilization measures; and
 - (f) The applicant may submit a schedule that identifies alternate options for implementation of the erosion and sediment controls and measures. The schedule shall identify when and under what criteria the alternate controls would be implemented.
- (3) Dust control plan. The dust control plan for construction of the proposed well site shall include all of the following:
- (a) An identification of the dust control measures that will be used during construction at the proposed well site;
 - (b) A description of the basis for when the dust control measures will be used;
 - (c) The name and contact information of the person who is responsible for the implementation of the dust control plan and who also has the authority to stop work if the management of the dust generated at the well site is not in accordance with the dust control plan; and
 - (d) A description of the methods and procedures that will be used to evaluate and document all complaints received by the person whose application was approved related to dust generation.
- (4) Geotechnical report. The geotechnical report shall describe all of the following: the proposed well site geotechnical conditions; design considerations that address the geotechnical conditions at the proposed well site; and construction requirements for the proposed well site that address the geotechnical conditions. The geotechnical report shall comply with and include all of the following:
- (a) An analysis of slope stability, bearing capacity, and settlements, as applicable, that have the potential to impact the performance of the constructed well site;
 - (b) Geotechnical borings or other geotechnical engineering standard investigative means, of sufficient depth and quantity to substantiate the design;
 - (c) A summary of subsurface exploration data specifically relevant to the geotechnical investigation and interpretation as it pertains to the design and construction of the proposed well site, including subsurface soil profile, exploration logs, laboratory or in situ test results, and elevation of the saturated zones that are encountered;
 - (d) An interpretation and analysis of the data required in the geotechnical report;
 - (e) An explanation of the geotechnical design constraints;
 - (f) Cross-sections through borings and applicable subsurface data collected while performing the requirements of paragraph (C)(4)(b) of this rule and critical slopes used in geotechnical calculations;



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- (g) The factor of safety for bearing capacity and slope stability. The factor of safety for slope stability shall not be less than 1.5 and the factor of safety for bearing capacity shall not be less than 3; and
- (h) Documents showing calculations used to determine the factor of safety. In addition, the documents shall include a detailed explanation of each assumption and reference used in the calculations.
- (5) Stormwater hydraulic report. The stormwater hydraulic report shall include hydraulic design documentation for all pipes, ditches and other conveyances, and hydraulic control structures of surface water within or from the proposed well site. All stormwater and hydraulic control structures shall be designed to and be capable of managing a ten year storm event. The stormwater conveyance system shall be designed to include sufficient stormwater storage capacity on the proposed well site to facilitate screening for potential contamination of the stormwater prior to discharge. In addition the report shall include all of the following:
 - (a) A delineation of contributing drainage area boundaries and their size measured in acres;
 - (b) A detailed description or drawing that shows the installation requirements of all pipes, ditches, hydraulic control structures, and conveyances;
 - (c) The materials and specifications for all proposed pipes, ditches, and conveyances;
 - (d) An analysis, performed by the professional engineer, of the integrity and capacity for all existing pipes, ditches, and conveyances; and
 - (e) The supporting calculations used to design the stormwater conveyance system.
- (D) Completeness review. Not later than ten business days after receipt of an application for approval to construct a well site, the chief shall review the application to determine if the application is complete, and notify the applicant in writing or by other means approved by the chief. If the chief determines that the application is not complete, the chief shall notify the applicant and identify the missing application components. The applicant may correct the application and submit the missing application components within five business days of receipt of the notification or the application will be returned to the applicant. Not later than five business days after receipt of all of the missing application components, the chief shall review the application for completeness and notify the applicant of the chief's determination.
- (E) Site review. A site review for the proposed well site, which is required under division (H) of section 1509.06 of the Revised Code, shall occur no later than fifteen business days after the applicant's receipt of notification that the application is complete under paragraph (D) of this rule, unless otherwise mutually agreed on by the applicant and the chief.
 - (1) Prior to the site review and for the site review meeting, the applicant shall install stakes at the proposed well site in a quantity and in a manner that delineates the proposed well site. The installation of the stakes shall show the proposed well site boundary, the corners of the proposed well pad, proposed roads, items and areas that are identified in the application that will remain undisturbed, and all other items that allow an understanding of the planned construction of the proposed well site.



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- (2) The chief, the applicant's designee, and the professional engineer who is responsible for the plans prepared under division (C) of this rule or another person under the professional engineer's direct supervisory control shall meet at the proposed well site for a site review meeting. At the site review meeting, the chief may conduct a physical review of the proposed well site, discuss the application, identify items that are necessary to ensure compliance with the requirements of this rule, identify site-specific terms and conditions that may be attached to an order that approves an application to construct a well site, and identify site-specific terms and conditions that may be attached to a permit to drill a horizontal well.
- (F) Review procedures.
- (1) Not later than thirty days after the site review meeting conducted under paragraph (E) of this rule, the chief shall review the application to determine if the application to construct the proposed well site is in accordance with this rule.
 - (2) If the chief identifies items that are necessary to ensure the well site design and application complies with the requirements of this rule, the chief shall notify the applicant of the items and the applicant may submit a revised application or portions of a revised application with an identification of all revisions. The chief may require the resubmission of the entire application. The chief shall review the revisions or resubmitted application within fifteen business days of receipt. If after sixty business days from the date the chief notified the applicant of the items and the applicant has not submitted the revised application or portions of the revised application, the chief shall return the application to the applicant. The chief may approve a longer period of time for submission of the revised application or portions of the revised application, upon written request by the applicant.
 - (3) After completing the review of the application, the chief shall send to the applicant an order that either approves or denies the application to construct a well site. If the chief issues an order to construct a well site, the chief may include terms and conditions.
 - (4) At any time prior to spud of the first well on the well site, the chief may require the applicant or person to submit additional information pertaining to the design or construction of the proposed well site that the chief determines is necessary for the protection of public health or safety or to prevent substantial damage to natural resources or is necessary to ensure compliance with the requirements of this rule.
- (G) Construction.
- (1) A person who has received an order approving an application from the chief to construct a well site may initiate construction of the proposed well site. The proposed well site shall be constructed in conformance with the approved application and in accordance with chapter 1509. of the Revised Code and rules adopted under it. The person shall notify the chief at least forty-eight hours prior to commencement of construction.
 - (2) During all phases of construction of the well site, all of the following are required;
 - (a) Ensure as-built construction drawings to the approved application for which an order was issued by the chief are current and available at the well site;



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- (b) Maintain a sign that is legible from the public right-of-way that includes the well pad name and a 24-hour emergency contact number. This sign shall include county, township, section or lot number, designated well pad name, and the 911 address of the well site;
 - (c) Maintain emergency response access;
 - (d) Maintain safe traffic flow near the entrance to the well site;
 - (e) Maintain sediment and erosion controls and soil stabilization measures so that they perform as designed in the approved application;
 - (f) Ensure that the pipes, ditches, and other conveyances of surface water and hydraulic control structures perform as designed in the approved application;
 - (g) Ensure that the dust controls perform as designed in the approved application;
and
 - (h) Maintain well site stability as designed in the approved application.
- (H) Modification of application.
- (1) All modifications, including material modifications, to the approved application are required to be documented within one working day of modification on a modification summary form prescribed by the chief. The form shall be submitted electronically and shall be updated daily if a modification is performed. In addition, the form shall be made available for review at the well site.
 - (2) All material modifications to a well site or to an approved application must be approved by the chief prior to implementation. All proposed material modifications shall be submitted to the chief in writing, or other means approved by the chief, and shall include all of the following:
 - (a) A detailed description of the proposed material modification and the potential impact to the performance of the well site;
 - (b) A specific identification of every portion of the application, as applicable, that is proposed to be modified; and
 - (c) Revised application documents, as applicable, pertaining to the material modifications.
 - (3) After receipt of a material modification submittal, the chief shall review the material modification. Within five business days of receipt of the material modification submittal, the chief shall either approve the proposed material modification or identify any items that are necessary to ensure compliance with the requirements of this rule. If the chief identifies items that are necessary to ensure compliance with the requirements of this rule, the person shall submit a revised material modification that includes the identified items for approval. The chief may require a site review prior to determining whether to approve the proposed material modification or identifying items necessary to ensure compliance with the requirements of this rule. If the chief requires a site review, the five business days period established under this paragraph shall be suspended until completion of the site review.



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- (4) Nothing in paragraph (H) of this rule prohibits a person from taking actions necessary to prevent harm to human health or safety or to prevent harm to the environment. If the actions will result in a material modification, the person shall submit a summary of the activities within twenty-four hours of the actions. In addition, the person shall submit the material modification documents in accordance with paragraph (H) of this rule within three business days of the event that posed a threat to human health or safety or to the environment, or within another time frame as agreed to by the chief.
 - (5) Alternate options contained in the approved application that are implemented shall not be considered material modifications, but shall be documented in the same manner as a modification in paragraph (H)(1) of this rule.
 - (6) The chief may waive all or part of the submission required under paragraph (H) of this rule.
- (l) Certification.
- (1) Not later than three years after the effective date of the order approving an application for construction of a well site and prior to the mobilization of any drilling equipment to the well site, the person who received the order shall submit to the chief a signed and sealed certification from the professional engineer who has personal professional knowledge of the construction of the well site. The certification shall be on a form prescribed by the chief and shall specifically state: "The application documents were designed in accordance with all applicable statutes and rules adopted under them and the well site was constructed in reasonably close conformity with the approved application, including all approved material modifications." In addition, the certification submittal shall include the record drawings and the modification summary form described in paragraph (H)(1) of this rule. Mobilization of any drilling equipment to the well site may commence beginning two business days after receipt of the complete certification submittal or upon notice from the chief.
 - (2) Pending receipt of the record drawings required under paragraph (l)(1) of this rule and upon written request of the person, the chief may authorize limited and conditional use of the well site if all the following have been received by the chief:
 - (a) The certification form as described under paragraph (l)(1) of this rule;
 - (b) As-built construction drawings documenting all modifications and material modifications to the approved drawings for which an order approving an application to construct a well site was issued by the chief; and
 - (c) The modification summary form as required in paragraph (H)(1) of this rule that is signed by the professional engineer.
 - (3) If the chief determines that the certification submitted under paragraph (l)(1) of this rule is incomplete or does not accurately document the constructed well site, the chief may issue an order ceasing operations on the well site. The chief shall rescind the cessation order upon the submission of a new certification and updated record drawings.



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- (4) The chief may require the person to obtain the services of a professional engineer to evaluate the well site and to develop a design to remediate the conditions that under paragraph (I)(4) of this rule are the basis for a chief's order ceasing operations on the well site. The design to remediate the causes and conditions shall comply with the requirements of paragraph (H)(2) through (H)(6) of this rule. The chief may issue an order ceasing operations on the well site if any of the following apply:
- (a) The constructed well site does not perform or is not likely to perform as designed;
 - (b) The constructed well site does not perform or is not likely to perform in a manner that supports the safe drilling and production operations of one or more horizontal wells;
 - (c) The constructed well site fails or is likely to fail to protect public health and safety; or
 - (d) The constructed well site fails or is likely to fail to prevent substantial damage to natural resources.
- (5) The chief shall rescind the cessation order upon implementation of the remedial design and the submission of a new certification and updated record drawings.
- (6) If an order ceasing operations has been issued under paragraph (I)(3) or (I)(4) of this rule and the person fails to provide a certification of the well site, the person shall reclaim the well site under paragraph (I)(7)(b) of this rule.
- (7) If within two years of the chief's receipt of the certification, a horizontal well has not been spudded, a horizontal well has been spudded but not completed, or drilling is not progressing with due diligence, the person shall do either of the following:
- (a) Certify the well site in accordance with the requirements established in this rule. If after two certifications a well has not been spudded, the person shall reclaim the well site under (I)(7)(b) or this rule; or
 - (b) Reclaim the well site to its original land use or approximate pre-construction conditions within nine months of the certification being terminated unless either of the following apply:
 - (i) The chief, upon written application submitted by the person, approves an extension of the time; or
 - (ii) The chief, upon written request for a waiver submitted by the person, releases the person from responsibility to perform any or all restoration requirements. The request shall contain the signature of the surface owner approving the release sought. The chief shall approve the request unless the chief finds upon inspection of the well site that the request would likely result in substantial damage to adjoining property, substantial contamination of surface or underground water, substantial erosion or sedimentation, or otherwise threatens public health and safety or substantial damage to natural resources.



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(J) Well Site Transfer.

- (1) Except as set forth below in paragraph (J)(3) of this rule, if ownership of a well site is transferred and a well has not been spudded at the well site, all of the following apply:
 - (a) The transferor shall notify the chief on a form prescribed and provided by the chief.
 - (b) The transferee shall be responsible for future certifications in accordance with the requirements of this rule.
- (2) Upon transfer of a well site, the transferee is responsible for operation and maintenance of the well site in accordance with chapter 1509. of the Revised Code and rules adopted under it.
- (3) This provision does not apply to the transfer of a constructed well site to