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OFFICE OF HEARINGS

July 7, 1988

Robert S. Drew, Chief Administrative Law Judge
New York State Department of Environmental Conservation
Office of Hearings, Room 409
50 Wolf Road
Albany, NY 12233

Re: Draft Generic Environmental Impact Statement on the
Oil, Gas and Solution Mining Regulatory Program

Dear Judge Drew:

Envirogas Inc. welcomes this opportunity to comment on the long awaited Draft Generic Environmental Impact Statement prepared by the Department of Environmental Conservation. By way of introduction, I should point out that Envirogas Inc. is one of the largest oil and gas exploration and production companies operating in New York, having drilled over 1,500 wells since our incorporation in 1976. Envirogas Inc. has long been recognized as an industry leader, not only due to the level of our operating activities but also as a result of our responsible approach to environmental concerns. Rather than addressing the Draft G.E.I.S. as a whole, we will comment on certain specific statements or proposals contained in it. To simplify your review of our comments, they are presented in the order found in the Draft G.E.I.S.

ENG-1

Envirogas Inc. supports the conclusions set forth on pages 3-2 et seq, and incorporated in Table 3.1 found on page 3-5 et seq., that the permitting of standard individual oil and gas wells should be considered non-significant actions under the State Environmental Quality Review Act. We believe that the proposed disturbance of more than two and one-half acres for a wellsite and access road in an Agricultural District is a reasonable threshold for requiring further environmental assessment by the Department, not requiring

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more than a limited, site-specific supplement to the Generic Environmental Impact Statement. The term "municipal water supply well" needs to be defined. There has been some confusion as to whether this term can include privately owned water wells in addition to water wells owned and operated by actual municipalities (i.e. governmental units such as cities). This definition should also include a minimum number of residences which must receive their water supplies from such a well for it to qualify as a "municipal water supply well". What constitutes a "major waterflood or tertiary recovery project or a "major" modification to a gas storage or solution mining project also requires further definition.

ENG-2 Section VIII of the Draft G.E.I.S. begins with a statement, on page 8-1, that "an operator must have a permit before site construction and drilling can commence." while the issuance of a permit by the Department should always be required prior to the commencement of actual drilling, the issuance of a permit has not been, and should not be, a prerequisite to site construction in most cases. Pre-permit site construction should not be prohibited for a well where the issuance of a drilling permit would automatically be considered a non-significant action under the guidelines set forth in Table 3.1 of the Draft G.E.I.S. Oil and gas development in New York is primarily funded by individual investment in drilling program partnerships. Current income tax regulations applicable to such investments has resulted in a situation where drilling activities are primarily conducted during the first and fourth quarters of each calendar year. With a limited "drilling season", oil and gas operators require flexibility in the conduct of their operations and should not be restricted in the construction of well sites in non-sensitive areas during the administrative processing of a drilling permit.

ENG-3 Figure 8.1 on page 8-1a purports to show a typical drilling site layout and depicts a square location with exterior boundaries of one hundred feet. Reference is made elsewhere in the Draft G.E.I.S. to this being the normal size of a well site (e.g. page 8-35). This is not correct. A typical well site will encompass approximately one acre during drilling, which equates to a square with exterior boundaries slightly in excess of two hundred feet. Similarly, the width of the access road, during drilling, is necessarily considerably greater than that depicted in Figure 8-1.

ENG-4 With respect to the "siting regulations and policies" discussed on page 8-3, it should be made clear that the "well location" referred to is the actual wellbore.

ENG-5 The recommendation on page 8-5 to increase the siting restriction

ENG-1 The term "municipal water supply" is defined as a water supply operated by a municipal government (city, town, village, etc.). The term does not apply to privately owned public water supplies unless they are under contract to a municipal government. "Major" in the context of a waterflood, tertiary recovery, gas storage or solution mining project would usually mean more than one well or a multi-well project. Other factors including the historic extent of operations in the area would also be considered. "Major" could be removed from items 5, 6, and 7 on page 3-3 without changing the intent of the text. In the case of an underground gas storage facility, a major modification would include increases in the previously approved reservoir storage capacity and buffer zone.

ENG-2 A permit must be issued before site clearing and construction begins. This is required under the State Environmental Quality Review Act. Whether the well can be issued a standard drilling permit, requiring no other permits or site-specific permit conditions, cannot be determined until the pre-site drilling inspection is made by DEC staff.

ENG-3 The figure depicts an average drill site based on information obtained from operators and Regional staffs. The size of drill sites will vary from well to well, and that in some cases, the site may be one acre or more in size.

ENG-4 The suggested clarification is true for the setbacks from private dwellings and public buildings or areas. The reference to "well" in the next paragraph, however, refers to the entire well site. Therefore, add the word "site" after "well" in the first line of the second full paragraph.



from private dwellings to 150 feet is reasonable and should be adopted. However, provision should be made for the automatic reduction of this restriction to 100 feet with the written consent of the owner of the private dwelling.

ENG-6 With respect to the recommendation on page 8-6 that the location of pits, access roads, tanks etc. be sketched on the survey plat accompanying a permit application, it should be noted that such sketch can only show the proposed location and anticipated dimensions of such facilities. Final location and dimensions are necessarily subject to developments during construction and drilling operations and are often also subject to landowner consent.

ENG-7 As with earlier statements relating to the size of drilling sites, the statement on page 8-7 that a pit is generally no larger than 25 feet by 50 feet underestimates the dimensions which are normally encountered. Pits of almost twice that size are not uncommon.

ENG-8 Page 8-11 contains a recommendation that future regulations provide for site reclamation within 45 days after the cessation of drilling operations. This is unreasonable and should not be adopted. Current regulations prohibit the storage of fluids on location for more than 45 days after the cessation of drilling operations, which itself is often unrealistic. After a gas well has been drilled to its total depth, tests are conducted (known as logging) to obtain information concerning the formations which have been penetrated and determine whether the well has sufficient potential for commercial production. If it does, casing is then run into the well and cemented into place. Thereafter, the well is completed (also referred to as being stimulated or frac'ed). After completions the well must generally be treated, often including the use of a service or swabbing rig. These activities which follow the cessation of drilling often require several weeks. The nature of these activities precludes site restoration, including the removal of fluids from and filling in of the pit, being undertaken until after the activities have been performed. For this reason the period of time allowed for site reclamation or on-site fluid storage should be measured from the date of completion of a well not from the date of cessation of drilling operations. (If there is a concern about the potential for undue delays between cessation of drilling and completion, the regulation could provide for the time of restoration to commence at the earlier of the date of completion or a fixed number of days following the date of cessation of drilling operations.) As indicated earlier, most of the drilling being done in New York is currently done during the winter months. Proper restoration during winter

ENG-5 Support for the 150 foot setback is noted. Reasonable alternative proposals or modifications will be considered during the rulemaking process.

ENG-6 Comment noted.

ENG-7 Again, the pit dimensions given here are averages, based on field observations and discussions with operators. It is realized that pit size will vary from well to well.



weather is a practical impossibility, especially in the Western part of the State where most drilling occurs. To allow for proper scheduling of restoration, after considering the circumstances under which most drilling occurs, it is recommended that the filling in of pits be required within sixty days following well completion and site restoration be required within nine months following well completion with the Regional Mineral Managers of the Department of Environmental Conservation having authority to grant extensions of time under reasonable circumstances.

ENG-9

It is recommended on page 8-15 that the siting restriction on the proximity of wells to surface bodies of water (formerly defined as a public stream, river or other body of water) be increased to 150 feet and that the restriction also include associated production facilities. We do not agree with this recommendation and are unaware of any evidence of pollution incidents which would support the tripling of the present siting restriction of 50 feet. We do believe that the existing 50 foot restriction should apply to pits and any tanks which contain brine, hydrocarbons or other potential pollutants. If, in reviewing a drilling permit application, the Department determines that specific topographical concerns may increase the risk of pollution to nearby surface waters, it can, as a special permit condition, require that special precautions be taken, such as the use of surface water ditches. Obviously, an increase in a siting restriction has the result of reducing the area of land available for oil and gas development. To allow this to occur, and potentially deprive landowners of the right to have their property fully developed without compelling evidence supporting the need to, is unfair to those landowners.

ENG-10

Envirogas Inc. has no objection to the proposal, found on page 8-16, that the surface water setback restriction be applied to springs being used for a domestic water supply provided that such restriction remains at 50 feet.

ENG-11

A discussion of "municipal water supplies" begins on page 8-16. This term requires formal definition. As implied in the Draft G.E.I.S., because of the statewide spacing requirement mandating a setback of 660 feet of a gas or oil well from lease lines, there is effectively already a siting restriction in place for municipal water supplies located on property owned by the municipality. Of course, a municipality has the ability to waive that informal siting restriction by entering into an oil and gas lease for the development of its property but can include whatever siting restriction it deems adequate as a condition of that lease. Accordingly, consideration of siting restrictions from municipal water supplies principally concerns surface municipal water supplies located on or immediately adjoining privately owned

ENG-8

Reasonable alternative proposals will be considered at the time of rulemaking. It is true that completion activities can take weeks if they are scheduled after the cessation of drilling; therefore, an extension or timetable of 60-90 days for final site reclamation may be reasonable. The DEC has encountered operator delays of several years between drilling and completion activities. Because of the high potential for leakage, pit fluid must be removed for proper disposal within the required time period.

ENG-9

The reasons DEC considers the existing 50-foot setback insufficient are detailed on page 8-15 of the GEIS. Other industry commentators have proposed that a 100-foot setback apply to the entire wellsite. Reasonable counterproposals will be considered during the rulemaking process. We agree that using the distance of 150 foot proximity as a flag for closer permit review to determine whether special precautions are necessary is more reasonable than a 150 foot siting restriction.

ENG-10

Support for a smaller domestic spring setback requirement is noted. See response to ENG-9.



property and municipal water wells. The Draft G.E.I.S. contains a recommendation, on page 8-17, for a minimum siting restriction for wells and associated production facilities from surface municipal water supplies of 150 feet which, it recognizes, is three times the existing restriction. Envirogas Inc. has the same concerns as it did with respect to the proposed increase in the siting restriction for other surface bodies of water relating to landowners being deprived of the full use of their property. However, Envirogas also recognizes the importance of municipal water supplies and the need to protect them. We accordingly believe that it may be reasonable to apply a 150 foot siting restriction to surface waters, including reservoirs, actively being used as a municipal water supply provided that a variance could be granted from such restriction in the discretion of the Regional Mineral Manager of the Department.

ENG-12

Issues relating to municipal water wells are somewhat more complex due in large part to the requirements which have been added for proposed oil and gas wells within either a 1,000 foot radius or 2,000 foot radius of a municipal water well. The extreme cost associated with an environmental impact statement, which is necessary for relief from these siting restrictions, effectively precludes the development of oil or gas within 2,000 feet of a municipal water well. It is our belief that this potentially constitutes a taking of a mineral interest owner's property without compensation and could result in claims being asserted against the municipality and State. It is our suggestion that the Department of Environmental Conservation use its regulatory powers relating to municipal water supplies to insure that municipalities act reasonably and fairly in locating their water wells (for example, by setting back its water well 340 feet from its property boundary a municipality can insure that no oil or gas well will be drilled within 1,000 feet of its water well thus precluding a situation where an environmental impact statement is mandatory for a proposed oil or gas well).

ENG-13

Envirogas Inc. believes the recommendation on page 8-22 of a 150 foot setback from private water wells is reasonable and supports its adoption provided that, as recommended, the water well owner has the ability to approve a smaller setback. We do not however believe the companion recommendation, that the survey plat accompanying a drilling application show the location of all private water wells of public record within 1,000 feet of a proposed wellsite, would have any real benefit and strongly feel that it should not be adopted. As pointed out in the Draft G.E.I.S., there are no standard regulations for water well construction and accordingly there are few instances where the location of private water wells are matters of public record.

ENG-11 A "municipal water supply" is defined as a water supply owned and operated by a municipality (city, town, village, etc.). Currently, variances cannot be administratively granted to parties other than municipalities. Part 553.4 of 6NYCRR requires public hearings to decide on requests for variances from any spacing and siting restrictions. Reasonable counterproposals to existing regulations will be considered during the rulemaking process.

ENG-12 This suggestion has merit. The DEC does not currently have the regulatory authority to restrict siting of water wells. See Topical Response Number 1 on Public Taking Without Compensation.



However, the cost to an operator of having a surveyor check all available records for information on the location of private water wells could be substantial. Under these circumstances, we do not believe such expense is justified. Since any property within 150 feet of a proposed wellsite would necessarily be under lease to the oil and gas operator, by contacting the appropriate landowner the operator would have a reasonable means of obtaining information on private water wells subject to this siting restriction without need to reference public records.

- ENG-14 Envirogas Inc. strongly disagrees with the suggestion on page 8-25 that a permit holder be required to have landowner approval to bury either trash or the pit liner. As a practical matter, it is virtually impossible to completely remove the pit liner from a property. Following the drilling of a well, the pit liner will contain an unknown but significant weight of drill cuttings, cement (from cementing the casing strings), drilling mud, and dirt (which is placed along the edges of the pit liner to help hold it in place). This weight on top of the plastic pit liner prevents it from being removed intact. A more reasonable approach than requiring removal of the pit liner and trash without landowner consent to bury it would be to specify a minimum depth for the burial of these items (such as 40 inches).
- ENG-15 The second recommendation on page 8-25 that well casing be cut to a depth of 4 feet in agricultural areas at the time of plugging and abandonment is reasonable and should be adopted.
- ENG-16 The separate stock piling of topsoil in agricultural areas so that it may be redistributed during site restoration is a standard practice, which as recommended on page 8-26, should be adopted. Measures such as paraplowing are generally inappropriate however, and should not be required.
- ENG-17 The implication on page 8-28 that the Department of Environmental Conservation may involve itself in the location of wells and/or access roads because of its impression of the potential for interference with farming operations seems a clear interference with the contractual relationship between a landowner and oil and gas operator. This is not properly the role of the Department.
- ENG-18 It should be pointed out with respect to the comments on culverts and sills that the need for the use of riprap in culvert installation is the exception rather than a common occurrence. Riprap is not needed for smaller water ways.
- ENG-19 As can be seen from the archeological site map reproduced as Figure 8.4 on page 8-36a, areas of potential archeological concern

- ENG-13 As stated in the GEIS, private water wells enter the public record when a property sale or transfer occurs. An examination of these records, in conjunction with contacting appropriate landowners as described by the commentator, would constitute a reasonable effort to locate all known private water wells. Alternate proposals will be considered during the rulemaking process.
- ENG-14 This recommendation was made because the DEC has received numerous complaints from landowners regarding buried trash and/or pit liners. Other industry commentators have expressed agreement with this recommendation. Reasonable counterproposals such as citing a minimum pit liner burial depth will be considered during the rulemaking process.
- ENG-15 Support for this proposed regulation is noted.
- ENG-16 Support for the proposed topsoil stockpiling requirement is noted. See response to I-558. Paraplowing is not being required at every wellsite, only where compaction has occurred.
- ENG-17 The DEC can intervene and attach permit conditions only under special circumstances to safeguard specified protected resources (e.g. floodplains, Agricultural Districts, wetlands, etc.), or to avoid or mitigate impacts to significant resources which are not otherwise protected but have been identified during review under SEQR.
- ENG-18 The commentator's observation is correct.



have not been identified with a great deal of specificity. Whenever a permit to drill an oil and gas well shows the proposed well to appear to be within a potential archeological site area, the applicant is required to have an archeological study done at its expense. This is an expensive process and a burden which has not uniformly been imposed on other industries or individuals.

Consideration should be given to a means of reducing the frequency of such reports being required by reducing the area of the identified potential archeological sites. Additionally, when an archeological survey is required from a permit applicant the review process by the State Office of parks, Recreation and Historic Preservation seems extremely slow and unduly delays the issuance of a drilling permit. A specific time period within which review of such a survey must be completed, not exceeding ten working days, should be established.

ENG-20 We support the suggestion on page 8-41 that existing regulations should be amended to require that dikes be constructed around all oil storage tanks, regardless of location.

ENG-21 With respect to the Freshwater Wetlands Permit referenced on page 8-45, it should be noted that the permitting process is often extremely lengthy, especially with regard to small projects which will create minimal disturbance to the wetland. It is accordingly suggested that an expedited permit review process be established for proposed activities which would disturb less than one-half acre of actual designated wetland.

ENG-22 The proposal on page 9-1 that written notification, sent by certified mail, to local governments and landowners at least five business days prior to the commencement of drilling operations is unnecessary and could result in causing delays to an oil and gas operator's normal activities. Regulatory jurisdiction of oil and gas drilling activities is vested exclusively in the Department of Environmental Conservation, and there is no jurisdictional need for the local government to have advance notice of the commencement of drilling operations. The principal benefit of requiring notice of the commencement of drilling operations to local governments is to insure the inclusion of a new well on the appropriate real property tax records. Existing notice requirements are satisfactory for that purpose.

ENG-23 Envirogas Inc. supports the second recommendation on page 9-1 to the effect that notification to the Department of Environmental Conservation of the actual commencement of drilling operations be allowed to be made by telephone rather than in writing. A requirement of 24-hour advance notice is not unreasonable. We also strongly support the remaining recommendation on page 9-1

ENG-19 We agree that the process for identifying archeological sites is sometimes burdensome, but this is outside our jurisdiction. The Office of Parks, Recreation and Historic Preservation believes it is necessary to restrict access to their archeological maps.

ENG-20 Support for the proposed oil tank dike requirement is noted.

ENG-21 Wetlands are highly sensitive environments where drilling activities can have adverse impacts beyond the actual boundaries of the project area. In addition, the Freshwater Wetlands Permit is issued by the Division of Regulatory Affairs under ECL 24-0103; therefore, the permit review process is outside the jurisdiction of the Division of Mineral Resources. Discussions among Minerals, Fish and Wildlife staff and the Oil, Gas and Solution Mining Advisory Board are continuing on wetlands issue.

ENG-22 Section 23.0305-13 of ECL requires that permittees give notice by certified mail to any local government or landowner affected by the location of the drilling site prior to the commencement of drilling operations. The law does not, however, specify five days. Landowners are also entitled to notification before a rig arrives on their land under the above section. Reasonable alternative proposals for accomplishing this goal will be considered during rulemaking.



that the effective period for a drilling permit be increased from 180 days to 12 months. Drilling permit fees are higher in New York than in other nearby states, yet none of the other states has a shorter effective period than that currently in effect in New York.

ENG-24 | A qualification should be included in the discussion of conductor casing on page 9-9. The Draft G.E.I.S. indicates that for conductor casing which is driven, cementing is only required if the conductor casing is not recovered when surface casing is run. While an operator may honestly intend to recover the conductor casing at the time the surface casing is being run, it is possible that he may be unsuccessful in doing so. Since it will then be too late to do a separate cement job, it is recommended that in such instance the conductor and surface casing strings be cemented together with the conductor casing then being grouted. This procedure should be added as part of the aforementioned discussion. It should also be noted that the matboards placed around the wellhead during drilling to support the rig platform do not allow sufficient room for a 3-foot diameter cement pad. Accordingly, it may not be feasible to create the proposed sloping pad until after the drilling rig leaves location. It should be noted in the brief discussion relating to the reciprocating of casing during cementing operations that for the size of drilling rig normally used in New York reciprocating is neither practical nor safe.

ENG-25 | It is noted on page 9-13 that the Department of Environmental Conservation is to receive 8 hours advance notification of the cementing of surface casing. This time was increased from the prior 4 hours to allow the Department adequate time to schedule an inspector to be present during cementing operations (since the Department also receives 24-hour advance notification of the commencement of drilling operations, it will already have been able to anticipate the timing of the cementing of the surface casing). Currently, additional conditions attached to drilling permits state that cementing may not commence until a State inspector is present. Given the notification requirements to the Department, this is unreasonable. Provided that the notice requirements are complied with, cementing operations should be allowed to proceed as scheduled, whether an inspector is present or not. Operators must pay substantial costs for idle drilling rig time (most drilling rigs are owned by third-party contractors, not oil and gas operators), and it is unreasonable for operators to be exposed to such expense because of the unavailability of a State inspector.

ENG-26 | It is recommended that the word significant be inserted on the

ENG-23 | Support for these proposed requirements is noted.

ENG-24 | Existing regulations require that the cement behind the surface casing extend from below the deepest potable freshwater zone to the surface, including the space between the surface casing and conductor casing. The statement on page 9-9 that the operator must grout non-recovered conductor casing applies whether or not the operator initially intended to recover the casing. Therefore, the procedures outlined in the GEIS adequately address the commentator's first concern.

With prior approval of the Regional Minerals Manager, a smaller pad may be installed. Additional cement would have to be added after drilling operations had ceased. This would bring the well into compliance with the required minimum diameter of 3 feet.

With respect to reciprocation, see response to I-233. As stated, we realize that conditions in New York State do not warrant requiring reciprocation.

ENG-25 | Notification of drilling commencement does not allow DEC to accurately predict when the surface casing will be cemented. Any number of circumstances could cause unforeseen cementing delays. In addition, the cited paragraph on page 9-13 refers only to drilling operations in primary and principal aquifers where a State inspector must be present to witness cementing the surface casing. This requirement does not apply in other areas, as stated on page 9-12. As stated in the response to I-243, the State makes every effort to have an inspector available in the situations where the presence of an inspector is required.



first line of item 6 on page 9-15 to describe "gas flows." This, we believe, will clarify what is intended by this paragraph.

ENG-27

Page 9-16 includes a portion of the currently effective cement and casing guidelines which the Draft G.E.I.S. adopts. The last sentence of paragraph 14 on that page assumes that all operators using the pump and plug method use a plug catcher (located at the top of the bottom full joint of casing). This is not a correct assumption. Envirogas Inc., for example, either places its design baffle, or a latch down baffle, directly in the float shoe at the very bottom of the casing string. The purpose of this is not to catch the plug but to allow us to be able to pressure test the casing prior to cementing. The use of a plug catcher as assumed by the last sentence of paragraph 14 would preclude this pressure testing format. The Department of Environmental Conservation has accepted the Envirogas Inc. procedure as an alternative to the procedure described in paragraph 14. We would accordingly suggest that paragraph 14 be modified by either deleting the last sentence or by adding a sentence allowing the alternative practice in use by Envirogas Inc.

ENG-28

The first sentence of the first full paragraph appearing on page 9-21 should be changed from an observation that "almost all operators test their blowout preventers for leaks after installation", to a requirement that blowout preventers be tested. In this same paragraph it should also be noted that test pressures in excess of 1,000 psi may be necessary for deeper wells.

ENG-29

The first full paragraph on page 9-23 implies that cementing the production casing to 100 feet above the production zone should be deemed sufficient to prevent the movement of oil, gas or other fluids around the exterior of the casing. What is needed as an absolute minimum is 100 feet of quality cement. It should be recognized that the first volumes of cement pumped normally have not achieved the desired consistency and are not adequate for the purposes intended. We believe that an additional 200 feet of cement (a total of 300 feet above the production zone) should insure the minimum 100 feet of quality cement which is necessary, and because of the importance that must be attached to this procedure, Envirogas Inc. suggests that this become a requirement.

ENG-30

With respect to the first full paragraph appearing on page 9-24, it should be pointed out that the process of well completion includes stimulation and production testing. Later, on the same page, reference is made to the well testing program proposed in the drilling permit application, however, the drilling permit application does not require the inclusion of a well testing program.

ENG-26

The text on page 9-15 is a verbatim copy of the cementing guidelines implemented on April 1, 1986. If the word "significant" were inserted, it would then have to be defined and measured. We feel that any gas flows that are "significant" enough to be noticed during drilling operations should be cemented. Reasonable alternatives will be considered during the rulemaking process.

ENG-27

As stated in the cementing guidelines: "The Department recognizes that variations to the above procedures may be indicated in site specific instances. Such variations will require the prior approval of the Regional Mineral Resources office staff." This is a more reasonable approach than to try and include all viable alternatives in the guidelines.

ENG-28

These sentences in the text are observations on common procedures and are provided for informational purposes. We concur with the commentator that all blowout preventers should be tested after installation, and that test pressures above 1,000 psi are appropriate on deeper wells. Currently, BOP equipment and testing procedure requirements are determined by the Regional Mineral Resources office.

ENG-29

The referenced text should have been written in the past tense. The production casing cement height requirement has already been raised to a minimum of 500 feet above the casing shoe or a tie into the previous casing string, whichever is less. This is outlined in the cementing guidelines implemented April 1, 1986.

ENG-30

Attachments to the drilling permit application form may be necessary. A complete drilling program includes the proposed casing cementing, completion, testing and stimulation procedures. These procedures are all considered part of the action to drill a well under SEQRA, as stated on page 7-5 in the GEIS.



- ENG-31 | The first full paragraph on page 9-25 should include a statement to make it clear that an "open hole completion" does not mean that surface casing in any well can be eliminated. An "open hole" should mean a well where there is no production casing through the producing formation.
- ENG-32 | It should be noted in the description of water-gel fracs appearing on page 9-26, as with the descriptions of the materials involved in other procedures described in this section, that reference is being made to a standard "frac job" and that variations are possible. It should also be noted in the last paragraph on this page that in the fracturing of a Medina well the overburden is not overcome.
- ENG-33 | Page 9-30 contains a recommendation that the Department of Environmental Conservation be able to take enforcement action against operators who repeatedly (a term which would require specific definition) submit incomplete Well Drilling and Completion Reports similar to the enforcement action which may be taken against operators for submitting a fraudulent or false report. Unless an intent to misrepresent information, similar to that involved in the filing of a fraudulent or false report, can be established, we believe a more appropriate response would be for the Department to return incomplete reports to the operator, requiring that they be completed and resubmitted.
- ENG-34 | The reference in the second paragraph of page 9-31 to most pits as having dimensions of approximately 25 feet by 50 feet is, in our experience, inaccurate. Most pits are considerably larger.
- ENG-35 | The recommendation on page 9-32 concerning the angle of pit walls is reasonable and would provide several benefits. However, it should be noted that as a consequence of such a permit condition the size of both the pit and wellsite will be substantially increased. Similarly, the recommendation on page 9-33 of a longitudinal pit would provide some benefit (where it is not impossible to construct due to site restrictions) but will result in the overall size of the wellsite increasing.
- ENG-36 | The Department of Environmental Conservation is suggesting two new requirements for pit liners. One requirement which the Department would impose is the use of a one-piece liner rather than allowing an operator to overlay smaller liners together for a pit. If adopted, this will be more expensive for operators but may result in improving the integrity of the pit liners. The second proposal would be to require a minimum thickness for pit liners of 10 mils. The selected reference to the practice used in two other states,
- ENG-31 | The surface casing requirement will not be eliminated.
- ENG-32 | Because water-gel fracs are the most common stimulation technique, a very general description is given of the pressure ranges and ingredients commonly used. While the text discusses in a general way the mechanics of fracturing, no mention is made of the extent of the resulting fractures. The suggested additional information is appropriate for public information purposes.
- ENG-33 | The Department does return incomplete reports to the operator without taking enforcement action, and will continue to do so. But, this practice uses a substantial amount of staff time. The recommendation is aimed at those operators who do not furnish complete information after repeated returns and resubmissions.
- ENG-34 | The average pit size given in the GEIS is based on information from operators and field staff in Regions 8 and 9. This information has been reviewed by the Oil, Gas, and Solution Mining Advisory Board.
- ENG-35 | Support for the recommendation that pit wall angles be limited and the accompanying comments regarding the effects on the pit and wellsite size are noted.



without reference to the practices involved in the many other states having active oil and gas industries, to support this recommendation is misleading. Certain brands of pit liners only 4 mils thick are sufficient in strength for their intended purpose. There has been no evidence submitted showing that the 6 mil pit liners currently commonly in use are inadequate or unsafe. There will be a significant cost increase to operators if a 10 mil thick minimum is established for pit liners. Envirogas Inc. does not believe that any evidence has been shown which is sufficient to justify this cost increase. Accordingly, we do not believe this recommendation by the Department should be adopted.

ENG-37

Contrary to the statement on page 9-36, it is the experience of Envirogas Inc. that drilling mud is not normally reconditioned.

ENG-38

The recommendation relating to site restoration which begins on the bottom of page 10-1 is the same as that found on page 8-11. Please refer to our earlier comments on this proposal.

ENG-39

We concur with the statement, found on page 11-1, that "the plugging and abandonment of oil and gas wells is an operation that is critical for the protection of underground and surface waters". With this in mind, it is the belief of Envirogas Inc. that existing plugging regulations, as described on page 11-3, provide an appropriate plugging procedure for wells where both the surface and production casing strings were cemented back to the surface with documented cement returns (cementing of a casing string is done by pumping cement down through the casing, forcing this cement up the outside or annulus of the casing - having cement returns visibly sighting cement flowing to the ground surface from such casing annulus).

ENG-40

We believe the material described in the recommendation found on page 11-4 exceeds what is actually needed for the proper plugging of a well. As stated on page 11-3, the required fluid must only be of a consistency to create sufficient hydrostatic pressure to exceed any zone pressures found in the well. However, the fluid should contain a corrosion inhibitor, which was omitted from the Department's recommendation.

ENG-41

We do not agree with the recommendation on page 11-11 to modify the plugging permit application. Envirogas Inc. believes that the existing application provides sufficient information for the Department of Environmental Conservation to review the proposed plugging operation and issue a permit therefore.

ENG-42

The following statement appears on page 11-12, "The DEC may require that the location and/or hardness of any plug be checked

ENG-36

The proposed pit liner requirements were based on a survey of pit liner requirements in several oil and gas producing states, as well as discussions with several pit liner manufacturers. If the commentator has any documentation in support of reduced minimum pit liner thickness, please submit it to the Department. We realize that adequate liner thickness varies with the material composition and construction. Reasonable alternative proposals will be considered during the rulemaking process.

ENG-37

Comment noted.

ENG-38

See response to ENG-8.

ENG-39

A 15-foot production zone plug is no longer considered acceptable in any state of this nation.

ENG-40

This recommendation was made because a density of 8.65 ppg is the minimum necessary to provide a gel-shear strength which will help prevent the flow of fluids within the wellbore if a plug should fail. Sufficient hydrostatic pressure is only one of the functions a good abandonment mud should provide. Other industry commentators have expressed agreement with this recommendation.

ENG-41

A detailed review and evaluation of proposed abandonment procedures by DEC staff is necessary to adequately protect the environment.



by re-entering the well and tagging it." The DEC should not be able to require an operator to drill out a shallower plug so as to be able to tag a deeper one. Also, the circumstances under which tagging can be required by the DEC should be limited. The DEC should be able to require tagging only in the event that their on-site inspector observes a problem. Of course, that inspector should require the tagging prior to the setting of any additional plug.

ENG-43

A differentiation should be made in the first sentence of the first paragraph appearing on page 11-18 between wells where only the bottom portion of the production casing has been cemented (to a height above the producing zone) and wells where the entire production casing has been cemented ("to the surface"). Historically, Envirogas Inc. has followed the practice of cementing the production casing in its wells back to the surface. We have done this because of our belief that this practice provided important additional environmental safeguards. We also recognized that cementing the production casing back to the surface would allow for a more efficient and economical procedure to plug a well after its commercial life. Our engineering department developed a plugging procedure which complied with existing plugging regulations, recognized the benefits of a policy of cementing the production casing back to the surface and kept plugging costs within reasonable limits. Envirogas Inc. has been extremely frustrated by recent proposals which seem to ignore existing plugging regulations. Our frustration is heightened by statements such as the following which appear in the same paragraph on page 11-18, "Under special circumstances, a bridge plug capped with cement at the top of the zone will be allowed, such as when the production interval is a fracture or lost circulation zone known to take fluids." The sentence is referring to a well without production casing cemented back to the surface and describes a situation which has the most potential for environmental harm. Yet, it is being stated that the least stringent plugging requirements will be applied to such a well. It is our hope that when the Generic Environmental Impact Statement is completed, it will reflect the benefit of cementing production casing back to the surface.

ENG-44

Envirogas Inc. does have several comments and suggestions with regard to the plugging proposals which appear in the Draft G.E.I.S. Option three under "Production Zone Plugging Requirements", on page 11-19 makes reference to a bridge plug and the volume of cement required on top of a bridge plug. It is appropriate to point out that a bridge plug is extremely reliable and safe to use. In various places throughout the plugging procedure discussion in Draft G.E.I.S. the volume of cement above

ENG-42 An operator would not be required to re-enter a well and tag a plug without just cause, such as a problem observed by the on-site inspector.

ENG-43 Under the well conditions described by the commentator, the operator may be allowed to place a bridge plug capped with cement above the production zone, but he would also be required to shoot and squeeze or cut and recover uncemented casing at some point up the hole. This cannot be considered a less stringent procedure.



a plug has been increased from the 15 feet required by current regulations to 50 feet. We are unaware of any evidence to support the need for this substantial increase. Envirogas Inc. believes that 15 feet of cement is sufficient for sealing any formation currently productive in New York. The increase in the volume of cement proposed will cause a significant increase in plugging costs, beyond the cost of the additional cement. The additional volume of cement precludes the use of a dump bailer in the cementing process, mandating the use of much more expensive equipment.

ENG-45

On the same page, option 1 under "Uncemented Production Casing Plugging Requirements", discusses the placement of a cement plug across the stub of unrecovered pipe. Placing the cement plug 25 feet below the stub will add significant time and expense to the plugging procedure but will not improve the result. The third line of option 3 under the same heading, which is found on page 11-20, should be changed by the substitution of the word "or" for the word "and".

ENG-46

Paragraph f on page 11-22 discusses the plugging of a well with cemented production and surface casing. The paragraph includes a statement of the added costs to an operator of cementing the production casing back to the surface and estimates that cost at between \$1,500 and \$3,000. That estimate ignores the salvage value of the production casing which cannot be recovered at the time of plugging. When the lost salvage value is also considered, the additional cost to the operator of cementing the production casing back to surface is approximately \$8,000. Also with regard to this paragraph, it is the belief of Envirogas Inc. that if there were good cement returns at the time the casing was cemented, at plugging only the bottom and top plugs (with a weighted gel spacer between them) will be needed without a 100 foot plug having to be placed inside the production string across the surface casing shoe.

ENG-47

Paragraph g on page 11-22 contains a recommendation extending the size of the surface plug from 15 feet to 50 feet. As referenced earlier, there is no known evidence to support this recommendation and, if accepted, it would significantly increase the plugging costs to an operator.

ENG-48

Also as referenced earlier, the fluid information in the first paragraph on page 11-23 is too specific without any support or evidence showing the need for the fluid information specified.

ENG-49

The first paragraph on page 13-18 makes reference to the fact that the DEC is not authorized to release production related reports

ENG-44 Comment noted. See response to ENG-39.

ENG-45 The 25 feet of cement below the stub will help ensure that the casing stub is adequately sealed, and minimize the likelihood of fluid flow from the casing stub. The suggested wording change would alter the meaning of the sentence and is not appropriate.

ENG-46 State and federal regulatory personnel do not concur with the opinion that adequate well plugging can be accomplished with a gel spacer between two 15-foot cement plugs.

ENG-47 The objection to this recommendation is noted. Reasonable alternative proposals will be considered during the rulemaking process.

ENG-48 See response to ENG-40.



from the solution mining industry to the public without a producer's consent. This is inconsistent with practices relating to the oil and gas industry where production information is regularly released. The basis for this inconsistency should be examined to see if there is a justification for keeping production information from one industry secret while disclosing similar information for another industry regulated by the same agency.

ENG-50

The buffer zone surrounding a gas storage field is discussed on page 14-7, which discussion includes a statement that no part of a buffer zone shall be more than 3,500 linear feet from the boundary thereof. It should be made clear that the 3,500 foot buffer zone is to be measured from existing storage wells and not an arbitrarily drawn storage boundary.

ENG-51

One of the most important, and recently well publicized environmental issues relating to the oil and gas industry is the proper disposal of brines associated with oil and gas production. Knowing that, it is disturbing to read, on page 15-8, that an estimated 90% of all brine produced in gas and new oil fields in New York is spread on roads for dust and ice control. It is equally disturbing to read on page 15-9 that this includes spreading on both paved and unpaved roads. The road spreading of brine carries with it the potential for serious environmental damage. Historically, there was no reliable alternative method available for the disposal of brine and accordingly, road spreading (on dirt roads) became the best alternative available to producers. However, in recent years more environmentally sound alternatives have developed for the disposal of oil and gas production brines. These include the use of waste water treatment plants and injection wells. These methods do not have the potential for the long range adverse environmental consequences associated with road spreading. Envirogas Inc. urges the inclusion in the Generic Environmental Impact Statement of a firm policy supporting use of injection wells, waste water treatment or similar facilities for the disposal of oil and gas production brines. Road spreading of these materials should be eliminated or curtailed to the greatest extent possible.

Chapters 16 and 17 of the Draft Generic Environmental Impact Statement are essentially summaries of the prior chapters and the recommendations contained in those chapters. Since we have already commented on various portions of those chapters and many of those recommendations, Envirogas Inc. will not duplicate its comments with respect to specific paragraphs in chapters 16 and 17.

ENG-49 We agree with this observation. Amendments to the current law would be necessary to abolish this discrepancy. Apparently, the solution mining industry has reasons for wanting their salt production records kept confidential and no one has ever objected.

ENG-50 The boundary that the buffer zone is measured from is the reservoir limit. The reservoir limit is established on the basis of technical evidence submitted by the storage operator. The material submitted is carefully reviewed by the professional staffs of DEC and the State Geologist.

ENG-51 We believe that the best disposal method for produced brine is to return it to the zone of origin. Unfortunately, there are too few brine disposal wells in New York State to accommodate all of the produced brine. DEC staff have evaluated the chemical characteristics of both road salt and produced brines, and have found that the brines when properly spread are no more detrimental to the environment than road salt. In the future, it is hoped that substances or methods for dust and ice control will be found which do not have the detrimental effects of either brine or road salt.



ENG-52

In conclusion, Envirogas Inc. would again like to express its gratitude for having the opportunity to comment on the Draft Generic Environmental Impact Statement. We hope that our comments will be helpful to you in reviewing this document and in making the necessary modifications to it. Should any additional information or discussion be desired in preparing your response to the foregoing comments, Envirogas Inc. would be most happy to cooperate with you. Please do not hesitate to contact the undersigned for any such information. We believe that the Draft Generic Environmental Impact Statement contains serious errors, specifically with respect to well plugging and well site restoration; if the comments which we have made are not accepted, we request that an adjudicatory hearing be scheduled before the G.E.I.S. is finalized.

Very truly yours,

ENVIROGAS INC.

Alan J. Laurita
Vice President - Land

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