This material is provided for public information. To provide information in the public interest is not "DEC interference into landowner/operator contracts".

The sentence is a very neutral statement of fact. This description of potential adverse impact is appropriate to this section.

This sentence is included for public information purposes. The possibility that a significant habitat will be overlooked does exist because not all DEC inspection staff are trained botanists or biologists. Natural geologic processes can be greatly accelerated by construction activities.

Comment noted. A newly formed wetland often kills existing trees, but these are replaced by other species which are indigenous to wetlands. See Topical Response Number 2 on Visual Resources and Assessment Requirement.

Comment noted. We disagree; the maximum amount of H₂S to which a person can be exposed for an hour without serious consequences is only 170 ppm. Respirators are usually recommended for exposure above 10 ppm. In the context of this sentence, an improperly vented tank would be one that is a nuisance. A vapor recovery system on a stock tank could be required under air quality regulations should circumstances warrant it. The suggested word change does not appreciably alter the intent of the sentence.

Comment noted. We disagree; the maximum amount of H₂S to which a person can be exposed for an hour without serious consequences is only 170 ppm. Respirators are usually recommended for exposure above 10 ppm. In the context of this sentence, an improperly vented tank would be one that is a nuisance. A vapor recovery system on a stock tank could be required under air quality regulations should circumstances warrant it. The suggested word change does not appreciably alter the intent of the sentence.

The State currently has no regulations prohibiting the construction of housing in the buffer zone around wells which have already been drilled. The State must protect public safety even in the absence of a lease agreement to do so.
16-11, 1st full para., DELETE this paragraph. REASON: Visual impacts are too difficult to define. Lease rights allow storage tanks and other equipment that might be considered by some to have a negative visual impact.

16-11, 1, COMMENT on this section: Archeological maps are checked during pre-site inspection and further studies may be required if the proposed location is found to be in an archeologically sensitive area. It should be unlikely, therefore, that such areas will be accidentally damaged.

16-12, 1. COMMENT: Tree removal encourages growth of other flora, and this usually leads to increases in many animal species populations.

16-12, 3. a. AGREE that most siting impacts are generally minor.

16-13, 1st full para., COMMENT: This is not a problem in New York and can be controlled by an adequate erosion and sedimentation control plan.

16-13, 2nd full para., COMMENT: The situations described in this paragraph are too extreme to be associated with oil and gas operations; they would usually occur in connection with large housing developments or removal of forests for farmlands. QUESTION: Concerning the statement that heavy sedimentation can lead to a shutdown of a public water supply, can an actual occurrence be cited? That much earth was never moved for oil and gas operations in New York.

16-16, line 6, COMMENT: Note p. 8-26 of GEIS. This is an indication of the normal weathering process that will render oil innocuous and is in conflict with 8-26.

16-17, 1st full para., line 7, CHANGE sentence beginning on this line to read, "Cement will filtrate into permeable aquifer zones.'

16-18, 2nd full para., line 1, CHANGE "will" to "may"; Line 4, CHANGE "can" to "may".

16-18, 2nd full para., line 4, ADD sentence to this line to read, "This is an argument against grouting."

16-19, c, line 2, CHANGE sentence beginning on this line to read, "Very few spills are the result of storage tank failures, and often are very minor problems."

16-19, c, line 7, DELETE phrase "quite severely" in this line.

See Topical Response Number 2 on Visual Resources and Assessment Requirement.

Not all archeological sites have been identified in New York State.

Comment noted.

Comment noted.

Comment noted.

It is true that these impacts are more likely to result from larger construction activities. One incident resulting from oil and gas construction activities which affected a public water supply occurred in the Town of Westfield.

The statements on this page are not in conflict with the comments regarding crop damage from brine and oil spills on page 8-26.

The text is correct as written.

Change "will" to "may" in line 1. In line 4, changing "can" to "may" would not appreciably alter the intent of this sentence.

Since grouting is typically reserved for conductor or surface casing, the suggested addition is not appropriate in this discussion of production casing cementing operations.

Since the draft GEIS was published, field staff have indicated that although storage tank failures do occur the majority of spills come from other sources.

The text is correct as written.
Comment noted. See response to I-344.

The sentence is technically correct as written. The reason for requiring fluid between cement plugs is stated on page 11-3 of the GEIS. Note that in comment I-335 IOGA agreed with DEC's recommendation regarding density and gel-shear strength requirements for the mud placed between plugs.

See response to I-417. As previously stated, there are many more points of discharge in the old waterflood areas than there are SPDES permits.

Rerowing the sentence as follows would be more correct: "Increased land use may occur more frequently due to . . . ."

This list of waterflood facilities is included for public information. Although stock tanks may be centrally located at most waterflood operations, when the components of any enhanced recovery facility are taken as whole, they generally result in increased land use compared to standard oil and gas operations.

See response to I-415. As previously stated, not all New York wells routinely pass the mechanical integrity tests.

Delete the words "routinely fails" from this sentence and insert "can fail". New York's old oil wells, with their lack of cemented surface casing and long field life, fit the profile of wells statistically prone to corrosion failure.

The Division estimates that as of early 1988, over 61,000 wells had been drilled in New York since 1821. Only about 5,700 of these wells are known to have been plugged since 1971 when the Division began compiling statistics on plugged wells, and 14,377 known unplugged wells were reported by operators in 1986. This leaves approximately 41,000 wells of unknown status. This information was presented at the March 1988 Oil, Gas, and Solution Mining Advisory Board meeting. References are IOCC (1955), VanTyne (1967), and Reed, et al (1987).

See response to I-414.

It is common knowledge that the majority of the early wells were drilled in Allegany and Cattaraugus Counties, and that they were first waterflooded in the early 20th century. See response to I-535.

Although the suggested correction was appropriate when it was written, there are now five facilities operating; the Tully Valley Brine Field has been shut-in.
Chapter 17 is a summary of mitigation measures likely to be necessary during various phases of oil, gas, solution mining, enhanced recovery, and underground storage operations. Examples of situations requiring special permit conditions (wetlands, floodplains, stream disturbance, etc.) are cited throughout the GEIS. The special permit conditions applied for the above situations are tailored to each site, and they are not construed as regulations or applied to all permits.

The suggested addition is incorrect. 6NYCRR Part 552.2(b) lists well plat requirements.

As stated on page 7-5 of the GEIS, it is understood that the final completion program may be different from what is originally proposed. Notification and approval of the Regional permitting DMN manager is required for changes resulting in revision to the permanent wellbore configuration.

As noted in the text, exceptions to the 40 acre spacing rule would apply for old oilfields and variances to the current spacing requirements could be granted as warranted. The sentence in the text is paraphrased from 6NYCRR Part 553.1(a) of the existing regulations. Reasonable alternative proposals will be considered during the rulemaking process.

The floodplain permits issued by DEC's Division of Regulatory Affairs often contain permit conditions specifying number and size of culverts.

Comment noted.

Suggested change would inappropriately alter the meaning of the sentence.
conditions are unnecessary unless the drilling site is on the grounds of an historic landmark.

17-6, 2, a, line 3, CHANGE this line to read, "...100 feet from public and private buildings, historic landmarks, or dwellings." COMMENT: If the drilling site must be moved, setback requirements should be amended appropriately.

17-7, b, CHANGE this section to read, "Plat Map. The plat submitted with the drilling permit application will show all water wells of public record within 1,000 feet of the proposed well site as shown on tax maps." REASON: Rig equipment varies, and the location of all well site facilities may not be known at the time the drilling permit is submitted.

17-7, c, line 2, CHANGE "45" to "180." REASON: Seasonal changes and other considerations may prohibit complete reclamation within 45 days.

17-7, d, COMMENT: Topsoil is not a commonly held natural resource.

17-7, d, line 7, CHANGE this line to read, "...cut well casing when plugging and abandoning in an active agricultural area to a safe..."

17-7, d, line 9, DELETE. REASON: The requirement to paraplow is unreasonable.

17-7, e, DELETE this section. REASON: It is covered by lease agreement.

17-7, f, COMMENT: The section on dikes should conform with existing federal SPCC requirements to eliminate confusion.

17-8, c, 1, 9, line 2, DELETE phrase reading, "...must grout..." REASON: The sentence will then agree with existing cementing requirements.

17-9, b, 1, 5th subsection (centralizers), line 2, CHANGE "120" to "150".

17-12, q, 3rd subsection, line 2, COMMENT: IDGA does not believe grouting will achieve the DEC’s objective.

17-13, line 1, DELETE phrase "after drilling operations have ceased." REASON: The operator may want to dispose of fluids during drilling operations.

17-13, 2, a, COMMENT: Providing a 24-hour notification phone number of someone with the authority to approve commencement of drilling operations would be very helpful.

The regulations also apply to lands adjacent to historic sites. If the well is a producer the visual impact could be long-term. Whether or not visual screening would be appropriate must be evaluated on a site specific basis.

Comment noted. Alternate proposals will be considered during the rulemaking process.

See response to I-552.

See response to I-138.

See response to I-145.

See response to Topical Response Number 7 on Soil as a Public Natural Resource.

We do not view this requirement as unreasonable. Plants may not be able to grow in areas unduly compacted by oil and gas activities, therefore, paraplowing may be necessary.

We do not agree. Please see comment I-168 where the commentator agreed with this proposed regulation.

See response to I-192.

See response to I-228.

The figure of 120 feet is in the cementing guidelines that were implemented on April 1, 1986. Alternate proposals will be considered during the rulemaking process.

Previous comments on problems associated with grouting have been noted. See response to I-238.

We concur that it is acceptable to dispose of fluids during drilling operations.

The Department does not approve the commencement of drilling. Rather, it approves of the drilling of a well via the issuance of a drilling permit. The operator then has the responsibility to notify the Department of the commencement of drilling 24 hours in advance of the start of such drilling operations. Spud notification is required so that drilling activities may be monitored. The best time to notify the Department is during normal business hours so that the information can be officially recorded. In any event, the Department maintains 24 hour telephone contact numbers which operators may use to transact business.
17-14, b, line 2, CHANGE "five" to "48 hours"

17-14, c, AGREE that the permit expiration date should be extended.

17-14, d, DELETE this section. REASON: Safety concerns are covered by OSHA, the Dept. of Labor, and other agencies in existing regulations. It is unnecessary and improper for DEC to develop more regulations in this area.

17-14, e, line 4, ADD phrase so that this line reads, ....blow out preventers and personnel on location will have kick response...

17-14, g, line 3, DELETE "to the surface" and REPLACE with "within the surface casing. Cement should be run in sufficient quantities to tag back to the next deepest casing."

17-14, j. DELETE this section. REASON: The DEC already has the ability to fine or prosecute violators.

17-15, k, line 7, CHANGE to read, "Seams must be effectively installed."

17-15, k, line 10, DELETE balance of paragraph beginning with "Base material shall be free...". REASON: This requirement is impractical, i.e., hay is frequently used to cushion the lining. The first part of section k covers all contingencies.

17-15, l, line 2, DELETE "longitudinally", REASON: This is not always the best method. Also, it will increase environmental impact by making the location size larger.

17-15, m, line 4, CHANGE "one" to "10".

17-15, o, DELETE this section. REASON: The Regional Division of Minerals manager should not be involved in the design or implementation of the testing program. This is proprietary information done at the discretion and expense of the operator.

17-16, l, a, COMMENT: The gas/oil ratio in the Bass Island regulations was initially enacted because it was determined by the State to be a matrix fed reservoir. Pressure testing in 1986 and subsequent temporary pooling by the State indicated that the reservoir is fracture-oriented, thereby invalidating the State's first determination. Also, increased ultimate recovery is in the operator's best interest.

17-16, l, c, DELETE this section. REASON: It is too vague.

17-16, 2, a, line 2, CHANGE "45" to "180".

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17-16, l, c, DELETE this section. REASON: It is too vague.

17-16, 2, a, line 2, CHANGE "45" to "180".

Reasonable alternative proposals will be considered during the rulemaking process.

Support for extending the permit expiration date is again noted.

We agree that all personnel at the well site should have kick response training.

Reasonable alternative proposals will be considered during the rulemaking process. This option is discussed on page 9-23 of the GEIS, where it is stated that permission may be granted to cement the production casing 50 feet into the surface or intermediate casing in special circumstances.

As stated in the response to I-290, non-compliance has been a problem. Increased compliance is the goal of this recommendation.

Reasonable alternative proposals will be considered during the rulemaking process. See response to I-293.

Delete the word "grass". The sentence should read as follows: "Base material shall be free from angular rocks, roots and vegetation."

Preparation of the base with hay is acceptable.

See response to I-294.

As previously stated, reasonable alternative proposals will be considered during the rulemaking process.

As stated in the response to I-269, the Regional Minerals Manager must be aware of oil and gas activities in his or her region that have potential for adverse environmental impact.

Comment noted. The Bass Island regulations were implemented to increase safety, prevent wasteful practices, and gather data to help understand the primary reservoir drive mechanism in order to ensure greater ultimate recovery. The reservoir characteristics of the Bass Island trend have been subject to debate ever since the first field production.

As stated in the response to I-29, site-specific permit conditions are sometimes necessary to assure environmental protection and allow DEC to issue a negative declaration.

Reasonable alternative proposals will be considered during the rulemaking process.
1-580 | 17-16, 2, b, COMMENT: It will be difficult to determine quantities of brine without having produced the well.

1-581 | 17-16, 2, c, COMMENT: This may lead to a false sense of security that mechanical equipment will operate properly at all times.

1-582 | 17-18, j, line 3, ADD phrase at the end of this sentence to read, "...after the DEC has made three reasonable attempts to notify the owner."

1-583 | 17-18, 2, a, QUESTION: Why will it be necessary to submit a complete proposed abandonment procedure with the notice of intention? The information is given on the form itself.

1-584 | 17-19, GENERAL COMMENT on b, c, d, and e: These proposed regulations may conflict with federal requirements.

1-585 | 17-19, b, line 2, INSERT a comma between "injection" and "disposal" on this line.

1-586 | 17-19, c, line 5, DELETE phrase beginning with "...or other approved fluids." and REPLACE with "as referenced in part d of this section."

1-587 | 17-19, d, line 1, CHANGE this sentence to read, "Intervals not occupied by cement shall be filled with fluid as specified by the Regional Minerals Manager."

1-588 | 17-20, line 5, QUESTION: Under what circumstances will tagging be required?

1-589 | 17-20, g, 3rd subsection. QUESTION: In reference to placing 25 feet of cement in wellbore above - above what?

1-590 | 17-21, k, line 1, DELETE "all", REPLACE with "three reasonable".

1-591 | 17-22, 2nd subsection on Production casing with unemented surface casing, line 2, DELETE "Every", REPLACE with "Reasonable efforts". Line 3 of this section, DELETE phrase "including milling out the pipe."

1-592 | 17-22, m, QUESTION: Under what conditions will tagging be required?

1-593 | 17-23, n, ADD "active" so that the beginning of the line reads, "In active agricultural..." REASON: If it is a fallow field, there is no reason to cut off casing below plow depth.

1-594 | 17-24, d, line 2, DELETE sentence beginning on this line. REPLACE with, "Venting of annular gas is approved by the Department."

1-595 | 17-24, e, line 2, CHANGE "impervious" to "impermeable". REASON: Flow-through treatment ponds are allowed under SPDES permit.

49

CR-55

As stated in the response to I-323, a conscientious operator will plan in advance for waste handling and disposal.

A responsible operator would not rely solely upon the mechanical equipment, but would continue personal inspection of storage tanks to ascertain fluid levels and equipment condition.

As stated in the response to I-341, it is understood that the State would make every possible effort to contact and inform the current operator of the need to plug the well.

Replace the words "be accompanied by" with the word "include".

As stated on page 15-17 of the GEIS, the DEC is working on developing a Memorandum of Understanding with the EPA in order to prevent conflicting requirements with respect to plugging and abandoning injection wells.

Correction noted. The comma should be inserted.

Correction noted.

Correction noted.

Site specific field conditions will dictate necessity or lack thereof for tagging plugs.

The cement would be placed in the wellbore directly above the point where the injection tubing was severed.

See response to I-338.

We agree that the words "Every effort" should be replaced with "Reasonable efforts". Under special conditions, such as gas leaking at the surface, milling out a section of casing might be appropriate.

The DMN could require tagging of a plug anytime staff deemed it necessary to verify the cement top.

See response to I-331.

This section is on flaring, not venting. Hence, the comment is not appropriate. See page 9-24 of the draft GEIS.

The suggested change is more technically correct. Change the word "impervious" to "impermeable".
DELETE sentence beginning on this line.
REASON: Much of this information would not be available until the well has been drilled. Line 4, ADD phrase at the end of the sentence on this line to read, "if available."

REASON: This should be done at the operator's discretion.

DELETE "watertight tank", REPLACE with "or pits or tanks."

ADD phrase so that this line reads, "...step rate pressure or instantaneous shut-in pressure data test..."

DELETE "documentation", REPLACE with "volume".

DELETE phrase "...and produced".

DELETE phrase "...by submission of the instantaneous pressure data (charts) from several nearby wells stimulated in the same zone or a step-rate pressure test..."

Any evidence of brine stress on surrounding or down gradient vegetation would lead to a determination of environmental damage.

Correction noted; change "Documentation" to "Volumen".

The suggested deletion is not appropriate.

A test well is a well drilled before the project is initiated for geologic information to determine the suitability of the reservoir for storage.

Change the phrase "...for any operation devoted to..." to "...for the conversion or excavation of any subsurface reservoir for..."

The word "Major" could be removed from this sentence without changing the intent. Any modification, defined as a change in storage capacity, would require a permit and SEQR review.

See response to I-474.

The word "Major" could be removed from this sentence without changing the intent. Any modification, defined as a change in storage capacity, would require a permit and SEQR review.

See response to I-451.

See response to I-462.

See response to I-463.

See Topical Response Number 2 on Visual Resources and Assessment Requirement.

It is appropriate to include permit conditions which might be required by the Division of Regulatory Affairs (DRA) under SEQR and attached to the DMN issued storage permit.

See response to I-471.
We agree that this section is too vague. Examples of infractions would be brine spills or gas leaks caused by casing or tubing failures.


Comment noted.

You're welcome.

The entire employment spectrum for the State is included in the multiplier effect.

Changing the word "most" to "many" is more appropriate than changing it to "some".

The suggested change does not appreciably alter the intent of this sentence.

The suggested additional information is detailed later in the text.

Add the phrase "...depending on the history of nearby producing wells, for each...".

The suggested addition is not necessary. The point being made is obvious.

The suggested changes do not appreciably alter the intent of the paragraph.
government agency." COMMENT on homeowner gas hook-ups: These could be permitted and regulated by the DEC, and the permitting fee could provide the State with another source of income. (NOTE: See Attachment C, "Liability Risks of Free Gas Clauses").

18-10, D, 1, 3rd para., line 2, CHANGE "much" to "some".

18-11, 2, a, QUESTION on this section: Why can't it be regulated?

18-13, c, COMMENT on this section: AGREE that access roads are a benefit, yet throughout the GEIS, the DEC cites access roads as an adverse environmental impact.

18-13, 3, 2nd para., line 2, DELETE "when gas is plentiful and cheap" and REPLACE with "in the summertime".

18-14, 1st full para., line 4, DELETE sentence beginning on this line.

18-15, 1st full para., line 6, DELETE sentences beginning on lines 6 and 7. REPLACE with "When water injection is halted, the integrity of the flood front is lost, gravity separation occurs, and the economic feasibility of the project may be greatly diminished. In most cases, reestablishing a waterflood is impossible due to changes in relative permeability."

18-16, 6, GENERAL COMMENT on this section: It grossly exaggerates the affect of the oil and gas industry on the health of New York State's citizens.

18-18, 2, (Aquifer Permit), line 2, DELETE "$1,500 to 3,000" and REPLACE with "$3,000 to 10,000 depending upon the depth of the well."

18-19, (Brine Blowdown), line 2, DELETE "$200 to $500" and REPLACE with "$800 to $1,000".

18-19, 2nd para., line 1, QUESTION: What is the net economic effect (in dollars) of past industry practices on society?

18-19, 2nd para., line 6, COMMENT: The unspoiled wilderness may not belong to (be owned by) the people appreciating it. Visual impacts cannot and should not be regulated. There is an assumption that the wilderness is spoiled by oil and gas operations. Wilderness areas can be enhanced by these operations. The roads created by industry can allow the public greater access to wilderness areas.

18-19, 2nd para., 2nd line from bottom, QUESTION: What is the net economic effect (in dollars) of past industry practices on society?

18-19, 2nd para., 2nd line from bottom, QUESTION: What proof does the State have that industry caused increased health care costs? The assumption could certainly be made that industry salaries and taxes assisted in decreasing health care costs.

Add the word "limited" before "free produced gas". The other suggested addition is not appropriate. For more information on the subject, see 18.D.2.a.

The suggested change does not appreciably alter the intent of the sentence. The DEC does not have the appropriate technical staff to regulate landowner connections for free gas. In addition, landowner gas hook-ups are more of a safety issue than an environmental issue, and the Public Service Commission (PSC) regulates only high pressure lines. The PSC does not have personnel to cover the additional regulatory responsibilities. The DEC does not cite access roads as an adverse environmental impact. We maintain that access roads can have environmental consequences, and that they must be considered as part of the project for the environmental review.

I-626

The DEC does not have the appropriate technical staff to regulate landowner connections for free gas. In addition, landowner gas hook-ups are more of a safety issue than an environmental issue, and the Public Service Commission (PSC) regulates only high pressure lines. The PSC does not have personnel to cover the additional regulatory responsibilities. The DEC does not cite access roads as an adverse environmental impact. We maintain that access roads can have environmental consequences, and that they must be considered as part of the project for the environmental review.

I-627

Change the sentence as follows: "...injecting it in the summertime when gas is more plentiful, and withdrawing it..."

I-628

The suggested deletion cannot be considered without a given reason.

I-629

The suggested change is more technically correct.

I-630

This section was required to supplement the section on the costs of environmental regulation. The discussion on the health costs of environmental pollution gives a general outline of how the health costs are computed by lawyers and insurance companies. It does not specifically target the New York State oil and gas industry.

I-631

The Division of Mineral Resources derived the figures listed in the GEIS from an informal survey of operators at the time the revised conditions were implemented. The commentator is welcome to supply documentation for the increased cost estimates. Many of the operators surveyed reported that they cemented production casing to the surface prior to the State requirement.

I-632

Again, the figures in the GEIS are documented by information provided by operators. The commentator may wish to supply DMN with substantiation of the higher figures cited. Costs do increase with time and it is quite likely that those operators who compiled the brine pit elimination order when it was first issued four years ago paid less.

I-633

The net economic effect (in dollars) of past industry practices is difficult to quantify.

I-634

The requirement that visual impacts be assessed does not carry the assumption that wilderness is spoiled by oil and gas activities. See Topical Response Number 2 on Visual Resources and Assessment Requirement.

I-635

Increased health costs could occur, for example, in cases of BTX contamination. Regulations designed to prevent the occurrence of this or other types of contamination would contribute to decreased health costs beyond the contribution made by industry salaries, insurance, benefits, etc.
Although air and water contamination have been responsible for most documented cases of oil and gas related health problems, human health could certainly be affected by large oil or brine spills in agricultural areas.

Comment noted. However, when the activities are repeated and concentrated in certain areas of the State, the potential for impact increases.

The sentence is correct as written.

The sentence is correct as written. See Topical Response Number 2 on Visual Resources and Assessment Requirement.

This suggested change does not appreciably alter the intent of the sentence. Changes in plant and animal distribution may or may not be temporary.

This sentence includes a number of possible minor impacts that may or may not occur. In addition to produced hydrocarbons and brines, there could be spills of rig fuel, mud or cement additives, and other chemicals or lubricants used at the drill site.

See Topical Response Number 2 on Visual Resources and Assessment Requirement.

This section describes all possible irretrievable losses or irreversible commitments of resources associated with oil, gas, and solution mining activities. This includes losses or commitments of resources above and beyond simply the loss of the produced hydrocarbons themselves.

The sentence is correct as written. See response to 1-648.

Nevertheless, once these resources are produced, they are irreplaceable.

The suggested change does not appreciably alter the intent of the text, which is to describe the range of available alternatives.

Change "spewed" to "leaked".
The paragraph is included for public information. While it is true that irresponsible parties operate in many industries, this draft GEIS pertains only to oil, gas, and solution mining. As previously stated, we agree that there should be more regulation of water well drillers.

The suggested addition is inappropriate because permit conditions might be necessary in some instances to assure a negative declaration even after the GEIS is in place. See Topical Response Number 3 on EAF and Site-Specific Permit Conditions.

The suggested deletion is unnecessary. The DEC has never accused the entire industry of making such a presumption. We are merely describing the cyclic nature of the industry for the public, and stating that long-term environmental protection is always necessary regardless of the current economic state of the industry.

This sentence states the conclusion of the GEIS, which details recommendations for extensive revisions and the reasons these revisions are necessary. As previously stated, reasonable alternatives to any proposed revisions or additions to the regulations will be considered during the rulemaking process. At that time there will again be ample opportunity for industry input at public hearings.
GLOSSARY

IOGA proposes that the following definitions be changed as indicated:

BCF: billion cubic feet of natural gas.

Blowout: uncontrolled flow of gas, oil or water from a well.

Drilling Fluid: mud, water, foam or air pumped down...

Infill Drilling: to move the minimum spacing unit inside an existing area. (NOTE: this definition should be placed between "Insert Gas" and "Intermediate Casing or String")

Kill Fluid: a heavy fluid which exerts a hydrostatic pressure equal to the bottom hole pressure.

Macaroni String: DELETE term - not commonly used in New York.

MCF: thousand cubic feet of natural gas.

MMCF: million cubic feet of natural gas.


Native Gas: ADD phrase to read, "Term is usually associated with gas storage."

Nonwetting Phase: the pore space fluid which is not attached to the reservoir rock.

Plat: a drafted map of the site location.

Potable: consumable by humans.

Production Casing: casing through which the well produces.

Real Property: includes mineral claims, surface and water rights.

Reservoir Rock: (CHANGE definition 2 to read) "Reservoir means any underground reservoir, stratigraphic or structural trap..."

Sequestering Agent: chemical additives that reduce chemical reaction.

Show: (NOTE: should be moved between "Short Ton" and "Shut In") small quantity of fluid.

Spudding: breaking of the surface in the initial stage of drilling a well.

Squeeze: pressure cementing technique.

Step Out: to move the minimum spacing unit outside an existing area.

It is commonly understood that "BCF" usually refers to a volume of natural gas.

The current regulations (6NYCRR Part 550.3(c)) do not include "water" in the definition of a blowout, but water is likely to be present. Therefore, the suggested change is more technically correct.

Anything derived from mud, water, gas, or air, along with common additives, is included in this definition.

The suggested addition is appropriate, but "Infill Drilling" would be more clearly defined as "Drilling between known producing wells to better exploit the reservoir."

The suggested change is more correct, but the purpose of kill fluid as stated in the GEIS definition is also correct.

This definition is included in the glossary because this descriptive field term was used in the GEIS for illustrative purposes.

It is commonly understood that "MCF" usually refers to a volume of natural gas.

It is commonly understood that "MMCF" usually refers to "million cubic feet of natural gas."

Correction noted. Add the words "of 1978" after the word "Act."

Clarification noted. The suggested phrase should be added.

The definition given in the GEIS is more technically correct, but addition of the suggested definition adds clarity.

The suggested definition alone is too restrictive, but its' addition to the existing text adds clarity.

The definition should be changed to read, "suitable for drinking by humans."

Change the text as follows: "Casing set above or through the producing zone through which the well produces."

Correction noted. Add the word "surface" after the word "claims."

The definition in the text was taken directly from the Oil, Gas and Solution Mining Law.

Correction noted. Change "reaction" to "reactions" and delete the phrase "between injected fluids and formation fluids."

Correction noted.

Correction noted. The definition should read "The breaking of the earth's surface in the initial stage of drilling a well."

It would be more correct to add the words "under pressure" after the word "forceful." Add the phrase "...between two strings of pipe, or into the casing-hole annulus" at the end of the definition.

Correction noted. As suggested in comment I-662, "infill drilling" should be added to the glossary as a separate entry.
Stimulation: act of increasing production by artificial means.

Strippers: a well producing less than 10 barrels of oil per day or 60 thousand cubic feet of gas per day.

NOTE: Please add term "Exploratory Well" and define as follows: a well drilled outside a proven area or horizon.

The definition given in the GEIS is technically correct, but it would be more descriptive to define "stimulation" as "the act of increasing a well's productivity by artificial means such as hydraulic fracturing, acidizing, shooting, etc."

Correction noted. Delete the word "oil" the first time it occurs and add "or 60 thousand cubic feet of gas per day".

Inclusion of this term in the glossary is appropriate.