The Texas Commission on Environmental Quality (commission) proposes an amendment to §331.2.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULE

The proposed amendment will implement House Bill (HB) 2567, 78th Legislature, 2003, and its amendment to Texas Water Code, §27.021. Changes to 30 TAC Chapters 50, 55, and 305 are also proposed in this issue of the *Texas Register* to implement HB 2567.

HB 2567 allows the commission to issue a permit to dispose of brine produced by a desalination operation in a Class I injection well without providing the opportunity for a contested case hearing, as long as all requirements for a Class I injection well permit are met. Public notice of, and the opportunity to comment on, a permit application will not be affected by this rulemaking.

HB 2567 may expedite the approval of Class I injection well permits for the disposal of desalination brine by removing the potential for a contested case hearing under the provisions of Texas Water Code, §27.018. The commission's ability to hold a discretionary hearing under the provisions of Texas Water Code, §5.102(b) was not amended by HB 2567. Other options for disposal of desalination brine are Class V injection wells, evaporation ponds, and surface discharge under a Texas Pollutant Discharge Elimination System permit.

HB 2567 does not define the terms "brine" or "desalination operation." The proposed amendment defines "desalination brine" and "desalination operation" to assist the regulated community and the public in understanding the terms when they are used to implement HB 2567 in Chapters 50, 55, and

305. Desalination operations produce useable water and a waste stream. The waste stream, referred to as "brine produced by a desalination operation" in HB 2567, is defined as "desalination brine" in this proposal. "Desalination brine" is often referred to as "reject water" by the desalination industry. The composition of desalination brine will vary, depending on the source water and the desalination process used. All Class I injection well permit applications require that a waste analysis plan be submitted that provides a description and analysis of the chemical and physical characteristics of the waste streams proposed to be injected. Desalination brine may be non-hazardous or hazardous waste depending on the results of the waste analysis. The statutory and regulatory requirements for disposal of hazardous brine may be more stringent than the requirements for disposal of non-hazardous brine.

SECTION DISCUSSION

Section 331.2, Definitions, adds"desalination brine" and "desalination operation" as new paragraphs (29) and (30) and renumbers subsequent definitions. The commission has chosen the term "desalination brine" to describe "the waste stream produced by a desalination operation" to distinguish and separate this type of brine from other regulated and commercial brines. The commission is defining the term "desalination operation" as "the process which produces water of useable quality by desalination" to provide guidance regarding the scope of the term "operation" and to indicate that desalination brine is the waste stream produced by the process of desalination.

FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

Jan Washburn, Program Specialist in the Federal Grants and Strategic Planning Section, determined that for the first five-year period the proposed amendment is in effect, there will be no adverse fiscal

implications for the agency or any other state agency. The amendment implements HB 2567, 78th Legislature, 2003, which simplifies and expedites the permitting process for Class I injection well permits for the disposal of desalination brine. The bill allows the commission to issue a permit to dispose of brine produced by a desalination operation in a Class I injection well without providing the opportunity for a contested case hearing, as long as all requirements for a Class I injection well permit are met. Public notice of, and the opportunity to comment on, a permit application will not be affected by this rulemaking. Ms. Washburn also determined that there will be no adverse fiscal impact to units of local government as a result of the proposed amendment.

PUBLIC BENEFITS AND COSTS

Ms. Washburn determined that for the first five years the proposed amendment is in effect, the anticipated public benefit will be indirect. This rulemaking may expedite the approval of Class I injection well permits for the disposal of desalination brine by removing the possibility of a contested case hearing. If this expedited permitting encourages entities to open desalination operations, then an immediate impact could be an increase in the supply of potable water in those areas where desalination is occurring. The public may benefit from the construction and operation of future desalination operations, because potable water produced from these operations can be used for municipal, domestic, and industrial purposes. Ms. Washburn also determined that there will be no adverse fiscal impacts to the public or individuals as a result of the proposed amendment.

SMALL BUSINESS AND MICRO-BUSINESS ASSESSMENT

Ms. Washburn also determined that there will be no significant fiscal implications to small or micro-businesses as a result of implementation of the proposed amendment for the first five years it is in effect.

LOCAL EMPLOYMENT IMPACT STATEMENT

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rule does not adversely affect a local economy in a material way for the first five years that the proposed rule is in effect.

DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the proposal is not subject to §2001.0225 because it does not meet the definition of a "major environmental rule" as defined in that statute. "Major environmental rule" means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The proposal does not meet the definition of a "major environmental rule" because the specific intent of the rule is to define the terms "desalination brine" and "desalination operation." These terms are used in other chapters of this title to provide that an application for a Class I injection well for the disposal of brine from a desalination operation is not subject to the hearing requirements of Texas Water Code, §27.018 and Texas

Government Code, Chapter 2001 (contested case hearing). The rule substantially advances this purpose by defining the terms "desalination brine" and "desalination operation." The proposal does not adversely affect in a material way the economy, a sector of the economy, productivity, competition, or jobs because it merely defines terms used in other rules. The proposal is not anticipated to adversely affect in a material way the environment or the public health and safety of the state or a sector of the state because the applicant for the permit must meet all the statutory and regulatory requirements for issuance of a permit for a Class I injection well.

In addition, the proposal does not exceed the four applicability requirements of Texas Government Code, §2001.0225 because the proposal does not: 1) exceed a standard set by federal law; 2) exceed an express requirement of state law; 3) exceed a requirement of a delegation agreement; or 4) seek to adopt a rule solely under the general powers of the agency.

The proposal does not exceed a standard set by federal law because there are no such corresponding federal standards requiring specific definitions of these terms. Furthermore, the proposal does not exceed an express requirement of state law because the proposal is mandated by state law. In addition, the proposal does not exceed the requirements of the delegation agreement concerning injection wells because the delegation agreement does not require specific definitions of these terms. Finally, this proposal is not adopted solely under the general powers of the agency, but is adopted under the specific provisions of Texas Water Code, §27.019 and §27.021.

The commission invites public comment on the draft regulatory impact analysis determination. All comments will be addressed in the publication of the final regulatory analysis.

TAKINGS IMPACT ASSESSMENT

The commission evaluated the proposed amendment and performed an assessment of whether the amendment constitutes a taking under Texas Government Code, §2007.043.

The specific purpose of the proposed amendment is to define the terms "desalination brine" and "desalination operation." These terms are used in other chapters of this title to provide that an application for a Class I injection well for the disposal of brine from a desalination operation is not subject to the hearing requirements of Texas Water Code, §27.018 and Texas Government Code, Chapter 2001 (contested case hearing).

The proposed amendment would substantially advance the previously-stated purpose by defining the terms "desalination brine" and "desalination operation."

The proposed amendment does not impose any burden on private real property and it does not result in any benefit to society from the proposed use of private real property because the proposed amendment does not directly apply to the ownership or use of a particular parcel of private real property. In addition, because the amendment does not apply to the ownership or use of a particular parcel of private real property, the amendment does not burden, restrict, or limit an owner's right to property or reduce its value by 25% or more beyond any reduction in value that would otherwise exist in the absence of the proposed amendment.

Therefore, promulgation and enforcement of this proposed amendment would not be a statutory or a constitutional taking of private real property.

The commission has no reasonable alternative actions that could accomplish the specified purpose of defining the terms “desalination brine” and “desalination operation.” Without the proposed amendment, the definitions related to HB 2567, 78th Legislature, 2003 would remain outdated.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the proposed rulemaking and found that the rule is neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11, nor will it affect any action/authorization identified in §505.11. Therefore, the proposed rule is not subject to the Coastal Management Program.

SUBMITTAL OF COMMENTS

Comments may be submitted to Patricia Durón, MC 205, Office of Environmental Policy, Analysis, and Assessment, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. All comments should reference Rule Project Number 2003-062-331-WS. Comments must be received by 5:00 p.m., May 10, 2004. For further information, please contact Fred Duffy of the Waste Permits Division at (512) 239-6891 or Emily Barrett of the Policy and Regulations Division at (512) 239-3546.

SUBCHAPTER A: GENERAL PROVISIONS

§331.2

STATUTORY AUTHORITY

The amendment is proposed under Texas Water Code, §5.103, which provides the commission with the authority to adopt any rules necessary to carry out its powers and duties under this code and other laws of this state and to adopt rules repealing any statement of general applicability that interprets law or policy; §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; §27.019, which requires the commission to adopt rules reasonably required for the regulation of injection wells; and §27.021, which provides that permits for disposal of brine produced by desalination operations are not subject to the hearing requirements of §27.018 and Texas Government Code, Chapter 2001.

The proposed amendment implements Texas Water Code, §27.021.

§331.2. Definitions.

General definitions can be found in Chapter 3 of this title (relating to Definitions). The following words and terms, when used in this chapter, have the following meanings.

(1) **Abandoned well** - A well which has been permanently discontinued from use or a well for which, after appropriate review and evaluation by the commission, there is no reasonable expectation of a return to service.

(2) **Activity** - The construction or operation of an injection well for disposal of waste, or of pre-injection units for processing or storage of waste.

(3) **Affected person** - Any person whose legal rights, duties, or privileges may be adversely affected by the proposed injection operation for which a permit is sought.

(4) **Annulus** - The space in the wellbore between the injection tubing and the long string casing and/or liner.

(5) **Annulus pressure differential** - The difference between the annulus pressure and the injection pressure in an injection well.

(6) **Aquifer** - A geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(7) **Aquifer restoration** - The process used to achieve or exceed water quality levels established by the commission for a permit/production area.

(8) **Aquifer storage well** - A Class V injection well used for the injection of water into a geologic formation, group of formations, or part of a formation that is capable of underground storage of water for later retrieval and beneficial use.

(9) **Area of review** - The area surrounding an injection well described according to the criteria set forth in §331.42 of this title (relating to Area of Review) or in the case of an area permit, the project area plus a circumscribing area the width of which is either 1/4 [one fourth of a] mile or a number calculated according to the criteria set forth in §331.42 of this title.

(10) **Area permit** - An injection well permit which authorizes the construction and operation of two or more similar injection wells within a specified area.

(11) **Artificial liner** - The impermeable lining of a pit, lagoon, pond, reservoir, or other impoundment, that is made of a synthetic material such as butyl rubber, chlorosulfonated polyethylene, elasticized polyolefin, polyvinyl chloride (PVC), other manmade materials, or similar materials.

(12) **Baseline quality** - The parameters and their concentrations that describe the local groundwater quality of an aquifer prior to the beginning of injection activities.

(13) **Baseline well** - A well from which groundwater is analyzed to define baseline quality in the permit area (regional baseline well) or in the production area (production area baseline well).

(14) **Buffer area** - The area between any mine area boundary and the permit area boundary.

(15) **Caprock** - A geologic formation typically overlying the crest and sides of a salt stock. The caprock consists of a complex assemblage of minerals including calcite ($CaCO_3$), anhydrite ($CaSO_4$), and accessory minerals. Caprocks often contain lost circulation zones characterized by rock layers of high porosity and permeability.

(16) **Captured facility** - A manufacturing or production facility that generates an industrial solid waste or hazardous waste that is routinely stored, processed, or disposed of on a shared basis in an integrated waste management unit owned, operated by, and located within a contiguous manufacturing complex.

(17) **Casing** - Material lining used to seal off strata at and below the earth's surface.

(18) **Cement** - A substance generally introduced as a slurry into a wellbore which sets up and hardens between the casing and borehole and/or between casing strings to prevent movement of fluids within or adjacent to a borehole, or a similar substance used in plugging a well.

(19) **Cementing** - The operation whereby cement is introduced into a wellbore and/or forced behind the casing.

(20) **Cesspool** - A drywell that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides.

(21) **Commercial facility** - A Class I permitted facility, where one or more commercial wells are operated.

(22) **Commercial underground injection control (UIC) Class I well facility** - Any waste management facility that accepts, for a charge, hazardous or nonhazardous industrial solid waste for disposal in a UIC Class I injection well, except a captured facility or a facility that accepts waste only from other facilities owned or effectively controlled by the same person.

(23) **Commercial well** - An underground injection control Class I injection well which disposes of hazardous or nonhazardous industrial solid wastes, for a charge, except for a captured facility or a facility that accepts waste only from facilities owned or effectively controlled by the same person.

(24) **Conductor casing or conductor pipe** - A short string of large-diameter casing used to keep the top of the wellbore open during drilling operations.

(25) **Cone of influence** - The potentiometric surface area around the injection well within which increased injection zone pressures caused by injection of wastes would be sufficient to drive fluids into an underground source of drinking water or freshwater aquifer.

(26) **Confining zone** - A part of a formation, a formation, or group of formations between the injection zone and the lowermost underground source of drinking water or freshwater aquifer that acts as a barrier to the movement of fluids out of the injection zone.

(27) **Contaminant** - Any physical, biological, chemical, or radiological substance or matter in water.

(28) **Control parameter** - Any chemical constituent of groundwater monitored on a routine basis used to detect or confirm the presence of mining solutions in a designated monitor well.

(29) **Desalination brine** - The waste stream produced by a desalination operation containing concentrated salt water, other naturally occurring impurities, and additives used in the operation and maintenance of a desalination operation.

(30) **Desalination operation** - A process which produces water of usable quality by desalination.

(31) [(29)] **Disposal well** - A well that is used for the disposal of waste into a subsurface stratum.

(32) [(30)] **Disturbed salt zone** - Zone of salt enveloping a salt cavern, typified by increased values of permeability or other induced anomalous conditions relative to undisturbed salt which lies more distant from the salt cavern, and is the result of mining activities during salt cavern development and which may vary in extent through all phases of a cavern including the post-closure phase.

(33) [(31)] **Drilling mud** - A heavy suspension used in drilling an injection well, introduced down the drill pipe and through the drill bit.

(34) [(32)] **Drywell** - A well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

(35) [(33)] **Excursion** - The movement of mining solutions into a designated monitor well.

(36) [(34)] **Existing injection well** - A Class I well which was authorized by an approved state or EPA-administered program before August 25, 1988 or a well which has become a

Class I well as a result of a change in the definition of the injected waste which would render the waste hazardous under §335.1 of this title (relating to Definitions).

(37) [(35)] **Fluid** - Material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

(38) [(36)] **Formation** - A body of rock characterized by a degree of lithologic homogeneity which is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

(39) [(37)] **Formation fluid** - Fluid present in a formation under natural conditions.

(40) [(38)] **Fresh water** - Water having bacteriological, physical, and chemical properties which make it suitable and feasible for beneficial use for any lawful purpose.

(A) For the purposes of this subchapter, it will be presumed that water is suitable and feasible for beneficial use for any lawful purpose only if:

(i) it is used as drinking water for human consumption; or

(ii) the groundwater contains fewer than 10,000 milligrams per liter (mg/L) total dissolved solids; and

(iii) it is not an exempted aquifer.

(B) This presumption may be rebutted upon a showing by the executive director or an affected person that water containing greater than or equal to 10,000 mg/L total dissolved solids can be put to a beneficial use.

(41) [(39)] **Groundwater** - Water below the land surface in a zone of saturation.

(42) [(40)] **Groundwater protection area** - A geographic area (delineated by the state under the Safe Drinking Water Act, 42 United States Code, §300j-13) near and/or surrounding community and non-transient, non-community water systems that use groundwater as a source of drinking water.

(43) [(41)] **Hazardous waste -** Hazardous waste as defined in §335.1 of this title (relating to Purpose, Scope, and Applicability).

(44) [(42)] **Improved sinkhole** - A naturally occurring karst depression or other natural crevice found in carbonate rocks, volcanic terrain, and other geologic settings which has been modified by man for the purpose of directing and emplacing fluids into the subsurface.

(45) [(43)] **Injection interval** - That part of the injection zone in which the well is authorized to be screened, perforated, or in which the waste is otherwise authorized to be directly emplaced.

(46) [(44)] **Injection operations** - The subsurface emplacement of fluids occurring in connection with an injection well or wells, other than that occurring solely for construction or initial testing.

(47) [(45)] **Injection well** - A well into which fluids are being injected. Components of an injection well annulus monitoring system are considered to be a part of the injection well.

(48) [(46)] **Injection zone** - A formation, a group of formations, or part of a formation that receives fluid through a well.

(49) [(47)] **In service** - The operational status when an authorized injection well is capable of injecting fluids, including times when the well is shut-in and on standby status.

(50) [(48)] **Intermediate casing** - A string of casing with diameter intermediate between that of the surface casing and that of the smaller long-string or production casing, and which is set and cemented in a well after installation of the surface casing and prior to installation of the long-string or production casing.

(51) [(49)] **Large capacity cesspool** - A cesspool that is designed for a flow of greater than 5,000 gallons per day.

(52) [(50)] **Large capacity septic system** - A septic system that is designed for a flow of greater than 5,000 gallons per day.

(53) [(51)] **Licensed professional geoscientist** - A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with its requirements for professional practice.

(54) [(52)] **Liner** - An additional casing string typically set and cemented inside the long string casing and occasionally used to extend from base of the long string casing to or through the injection zone.

(55) [(53)] **Long string casing or production casing** - A string of casing that is set inside the surface casing and that usually extends to or through the injection zone.

(56) [(54)] **Lost circulation zone** - A term applicable to rotary drilling of wells to indicate a subsurface zone which is penetrated by a wellbore, and which is characterized by rock of high porosity and permeability, into which drilling fluids flow from the wellbore to the degree that the circulation of drilling fluids from the bit back to ground surface is disrupted or "lost."

(57) [(55)] **Mine area** - The area defined by a line through the ring of designated monitor wells installed to monitor the production zone.

(58) [(56)] **Mine plan** - A map of adopted mine areas and an estimated schedule indicating the sequence and timetable for mining and any required aquifer restoration.

(59) [(57)] **Monitor well** - Any well used for the sampling or measurement of any chemical or physical property of subsurface strata or their contained fluids.

(A) Designated monitor wells are those listed in the production area authorization for which routine water quality sampling is required.

(B) Secondary monitor wells are those wells in addition to designated monitor wells, used to delineate the horizontal and vertical extent of mining solutions.

(C) Pond monitor wells are wells used in the subsurface surveillance system near ponds or other pre-injection units.

(60) [(58)] **Motor vehicle waste disposal well** - A well used for the disposal of fluids from vehicular repair or maintenance activities, including, but not limited to, repair and maintenance facilities for cars, trucks, motorcycles, boats, railroad locomotives, and airplanes.

(61) [(59)] **New injection well** - Any well, or group of wells, not an existing injection well.

(62) [(60)] **New waste stream** - A waste stream not permitted.

(63) [(61)] **Non-commercial facility** - A Class I permitted facility which operates only non-commercial wells.

(64) [(62)] **Non-commercial underground injection control (UIC) Class I well facility** - A UIC Class I permitted facility where only non-commercial wells are operated.

(65) [(63)] **Non-commercial well** - An underground injection control Class I injection well which disposes of wastes that are generated on-site, at a captured facility or from other facilities owned or effectively controlled by the same person.

(66) [(64)] **Off-site** - Property which cannot be characterized as on-site.

(67) [(65)] **On-site** - The same or geographically contiguous property which may be divided by public or private rights-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the owner controls and to which the public does not have access, is also considered on-site property.

(68) [(66)] **Out of service** - The operational status when a well is not authorized to inject fluids, or the well itself is incapable of injecting fluids for mechanical reasons, maintenance operations, or well workovers or when injection is prohibited due to the well's inability to comply with the in-service operating standards of this chapter.

(69) [(67)] **Permit area** - The area owned or under lease by the permittee which may include buffer areas, mine areas, and production areas.

(70) [(68)] **Plugging** - The act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.

(71) [(69)] **Point of injection** - For a Class V well, the last accessible sampling point prior to fluids being released into the subsurface environment.

(72) [(70)] **Pollution** - The contamination of water or the alteration of the physical, chemical, or biological quality of water:

(A) that makes it harmful, detrimental, or injurious:

(i) to humans, animal life, vegetation, or property; or

(ii) to public health, safety, or welfare; or[,]

(B) that impairs the usefulness or the public enjoyment of the water for any lawful and reasonable purpose.

(73) [(71)] **Pre-injection units** - The on-site above-ground appurtenances, structures, equipment, and other fixtures including the injection pumps, filters, tanks, surface impoundments, and piping for wastewater transmission between any such facilities and the well that are or will be used for storage or processing of waste to be injected, or in conjunction with an injection operation.

(74) [(72)] **Production area** - The area defined by a line generally through the outer perimeter of injection and recovery wells used for mining.

(75) [(73)] **Production area authorization** - A document, issued under the terms of an injection well permit, approving the initiation of mining activities in a specified production area within a permit area.

(76) [(74)] **Production zone** - The stratigraphic interval extending vertically from the shallowest to the deepest stratum into which mining solutions are authorized to be introduced.

(77) [(75)] **Radioactive waste** - Any waste which contains radioactive material in concentrations which exceed those listed in 10 Code of Federal Regulations Part 20, Appendix B, Table II, Column 2 and as amended.

(78) [(76)] **Restoration demonstration** - A test or tests conducted by a permittee to simulate production and restoration conditions and verify or modify the fluid handling values submitted in the permit application.

(79) [(77)] **Restored aquifer** - An aquifer whose local groundwater quality has, by natural or artificial processes, returned to levels consistent with restoration table values or better as verified by an approved sampling program.

(80) [(78)] **Salt cavern** - A hollowed-out void space that has been purposefully constructed within a salt stock, typically by means of solution mining by circulation of water from a well or wells connected to the surface.

(81) [(79)] **Salt cavern confining zone** - A zone between the salt cavern injection zone and all underground sources of drinking water and freshwater aquifers, that acts as a barrier to movement of waste out of a salt cavern injection zone, and consists of the entirety of the salt stock excluding any portion of the salt stock designated as an underground injection control (UIC) Class I salt cavern injection zone or any portion of the salt stock occupied by a UIC Class II or Class III salt cavern or its disturbed salt zone.

(82) [(80)] **Salt cavern injection interval** - That part of a salt cavern injection zone consisting of the void space of the salt cavern into which waste is stored or disposed of, or which is capable of[,] receiving waste for storage or disposal.

(83) [(81)] **Salt cavern injection zone** - The void space of a salt cavern that receives waste through a well, plus that portion of the salt stock enveloping the salt cavern, and extending from the boundaries of the cavern void outward a sufficient thickness to contain the disturbed salt zone, and an additional thickness of undisturbed salt sufficient to ensure that adequate separation exists between the outer limits of the injection zone and any other activities in the domal area.

(84) [(82)] **Salt cavern solid waste disposal well or salt cavern disposal well** - For the purposes of this chapter, regulations of the commission, and not to underground injection control (UIC) Class II or UIC Class III wells in salt caverns regulated by the Texas Railroad Commission, a salt cavern disposal well is a type of UIC Class I injection well used:

(A) to solution mine a waste storage or disposal cavern in naturally occurring salt; and/or

(B) to inject hazardous, industrial, or municipal waste into a salt cavern for the purpose of storage or disposal of the waste.

(85) [(83)] **Salt dome** - A geologic structure that includes the caprock, salt stock, and deformed strata surrounding the salt stock.

(86) [(84)] **Salt stock** - A geologic formation consisting of a relatively homogeneous mixture of evaporite minerals dominated by halite (NaCl) that has migrated from originally tabular beds into a vertical orientation.

(87) [(85)] **Sanitary waste** - Liquid or solid waste originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned.

(88) [(86)] **Septic system** - A well that is used to emplace sanitary waste below the surface, and is typically composed of a septic tank and subsurface fluid distribution system or disposal system.

(89) [(87)] **Stratum** - A sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock or material.

(90) [(88)] **Subsurface fluid distribution system** - An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

(91) [(89)] **Surface casing** - The first string of casing (after the conductor casing, if any) that is set in a well.

(92) [(90)] **Temporary injection point** - A method of Class V injection that uses push point technology (injection probes pushed into the ground) for the one-time injection of fluids into or above an underground source of drinking water.

(93) [(91)] **Total dissolved solids (TDS)** - The total dissolved (filterable) solids as determined by use of the method specified in 40 Code of Federal Regulations Part 136, as amended.

(94) [(92)] **Transmissive fault or fracture** - A fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

(95) [(93)] **Underground injection** - The subsurface emplacement of fluids through a well.

(96) [(94)] **Underground injection control (UIC)** - The program under the federal Safe Drinking Water Act, Part C, including the approved Texas state program.

(97) [(95)] **Underground source of drinking water (USDW)** - An "aquifer" or its portions:

(A) which supplies drinking water for human consumption; or

(B) in which the groundwater contains fewer than l0,000 milligrams per liter total dissolved solids; and

(C) which is not an exempted aquifer.

(98) [(96)] **Upper limit** - A parameter value established by the commission in a permit/production area authorization which when exceeded indicates mining solutions may be present in designated monitor wells.

(99) [(97)] **Verifying analysis** - A second sampling and analysis of control parameters for the purpose of confirming a routine sample analysis which indicated an increase in any control parameter to a level exceeding the upper limit. Mining solutions are assumed to be present in a designated monitor well if a verifying analysis confirms that any control parameter in a designated monitor well is present in concentration equal to or greater than the upper limit value.

(100) [(98)] **Well** - A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension, a dug hole whose depth is greater than the largest surface dimension, an improved sinkhole, or a subsurface fluid distribution system but does not include any surface pit, surface excavation, or natural depression.

(101) [(99)] **Well injection** - The subsurface emplacement of fluids through a well.

(102) [(100)] **Well monitoring** - The measurement by on-site instruments or laboratory methods of any chemical, physical, radiological, or biological property of the subsurface strata or their contained fluids penetrated by the wellbore.

(103) [(101)] **Well stimulation** - Several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, including, but not limited to, surging, jetting, blasting, acidizing, and hydraulic fracturing.

(104) [(102)] **Workover** - An operation in which a down-hole component of a well is repaired, the engineering design of the well is changed, or the mechanical integrity of the well is compromised. Workovers include operations such as sidetracking, the addition of perforations within the permitted injection interval, and the addition of liners or patches. For the purposes of this chapter, workovers do not include well stimulation operations.