**Section 730.181 Applicability**

a) This Subpart H establishes criteria and standards for Class VI carbon dioxide geologic sequestration injection wells.

b) This Subpart H applies to any injection well that is used to inject carbon dioxide specifically for the purpose of geologic sequestration.

c) This Subpart H also applies to the owner or operator of a permit‑ or rule-authorized Class I, Class II, or Class V experimental carbon dioxide injection well that seeks to apply for a Class VI geologic sequestration permit for its well. An owner or operator that seeks to convert an existing Class I, Class II, or Class V experimental injection well to a Class VI geologic sequestration well must demonstrate to the Agency that the well was engineered and constructed to meet the requirements of Section 146.86(a) and to ensure protection of USDWs, in lieu of requirements at Sections 146.86(b) and 146.87(a). The owner or operator of either a Class I injection well that was previously permitted for the purpose of geologic sequestration or a Class V experimental technology injection well that is no longer being used for experimental purposes and which will continue injection of carbon dioxide for the purpose of geologic sequestration must apply for a Class VI permit. A converted well must still meet all other requirements of this Part.

d) Definitions. The following definitions apply to this Subpart H. To the extent that these definitions conflict with those that appear in 35 Ill. Adm. Code 702.110 or Section 730.103, the definitions of this Section govern for Class VI wells:

"Area of review" means the region surrounding the geologic sequestration project where a USDW may be endangered by the injection activity. The area of review is delineated using computational modeling that accounts for the physical and chemical properties of all phases of the injected carbon dioxide stream and displaced fluids, and is based on available site characterization, monitoring, and operational data, as set forth in Section 730.184.

"Carbon dioxide plume" means the sub-surface three-dimensional extent underground of an injected carbon dioxide stream.

"Carbon dioxide stream" means carbon dioxide that has been captured from an emission source (e.g., a power plant), plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process. This Subpart H does not apply to any carbon dioxide stream that meets the definition of a hazardous waste in 35 Ill. Adm. Code 721.103.

"Confining zone" means a geologic formation, a group of formations, or a part of a formation that stratigraphically overlies an injection zone and which acts as barrier to fluid movement. For a Class VI injection well that is operating under a permit that includes alternative injection well depth requirements, "confining zone" means a geologic formation, a group of formations, or a part of a formation that stratigraphically overlies and underlies the injection zone.

"Corrective action" means the use of Agency-approved methods to ensure that wells within an area of review do not serve as conduits for the movement of fluids into a USDW.

"Geologic sequestration" means the long-term containment of a gaseous, liquid, or supercritical carbon dioxide stream in subsurface geologic formations. This term does not apply to carbon dioxide capture or transport.

"Geologic sequestration project" means any of the following three types of injection wells:

An injection well or wells that are used to emplace a carbon dioxide stream beneath the lowermost formation containing a USDW;

An injection well or wells that are used for geologic sequestration of carbon dioxide and which have been granted a permit that includes alternative injection well depth requirements pursuant to requirements at Section 730.195; or

An injection well or wells that are used for geologic sequestration of carbon dioxide and which have received an expansion to the areal extent of an existing Class II enhanced oil recovery or enhanced gas recovery aquifer exemption pursuant to Section 730.104 and 35 Ill. Adm. Code 704.123(d).

A geologic sequestration project includes the subsurface three-dimensional extent of the carbon dioxide plume, the associated area of elevated pressure, and displaced fluids, as well as the surface area above that delineated region.

"Injection zone" means a geologic formation, a group of formations, or a part of a formation that is of sufficient areal extent, thickness, porosity, and permeability to receive carbon dioxide through a well or wells associated with a geologic sequestration project.

"Post-injection site care" means appropriate monitoring and other actions (including corrective action) needed following cessation of injection to ensure that no USDW is endangered, as required under Section 730.193.

"Pressure front" means the zone of elevated pressure that is created by the injection of carbon dioxide into the subsurface. For the purposes of this Subpart H, the pressure front of a carbon dioxide plume refers to a zone where there is a pressure differential sufficient to cause the movement of injected fluids or formation fluids into a USDW.

"Site closure" means the point or time, as determined by the Agency pursuant to Section 730.193, at which the owner or operator of a geologic sequestration site is released from post-injection site care responsibilities.

"Transmissive fault or fracture" means a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

BOARD NOTE: This Section corresponds with 40 CFR 146.81 (2017).

(Source: Amended at 42 Ill. Reg. 24145, effective November 19, 2018)