Wyoming Oil & Gas Conservation Commission

4840 Injection and Disposal Wells

404 Disposal Wells

4436 Enhance Recovery Injection Wells

33 Gas Enhance Recovery Projects

223 C02 Injectors in Salt Creek, Wertz, Lost Soldier and Patrick Draw Fields

19 Gas Disposal Projects (Wells)

16 Natural Gas Storage Projects

Wyoming Department of Environmental Quality

26 Class 1 Industrial Disposal Wells

WOGCC GAS INJECTION PROJECTS ENHANCED RECOVERY

FIELD OR UNIT	COUNTY	FORMATION	STATUS	OPERATOR
ANSCHUTZ RANCH EAST	UINTA	NUGGET	INACTIVE	BP AMERICA PROD CO
AUSTIN CREEK	NATRONA	MUDDY	ACTIVE	NANCE PETROLEUM CORP
BIG PINEY	SUBLETTE	P SAND	INACTIVE	EOG RESOURCES
BUCK DRAW	CAMPBELL	DAKOTA	INACTIVE	MERIT ENERGY COMPANY
DILLINGER RANCH	CAMPBELL	MINNELUSA Water- C02	ACTIVE	CITATION OIL COMPANY
ELK BASIN	PARK	EMBAR-TENSLEEP	ACTIVE	HOWELL PETROLEUM
FOURBEAR	PARK	TENSLEEP	INACTIVE	NANCE PETROLEUM CORP
GARLAND	BIG HORN	CLOVERLY-TENSLEEP	INACTIVE	MARATHON OIL COMPANY
GLASSCOCK HOLLOW	UINTA	NUGGET	INACTIVE	MERIT ENERGY COMPANY
GRIEVE NORTH	NATRONA	MUDDY	INACTIVE	NANCE PETROLEUM CORP
HENRY	UINTA	DAKOTA	INACTIVE	CABOT OIL & GAS
LOST SOLDIER	SWEETWATER	TENSLEEP NG-CO2-Water	ACTIVE	MERIT ENERGY CORP
LOST SOLDIER	SWEETWATER	MADISON-DARWIN CO2-Water	ACTIVE	MERIT ENERGY CORP
PAINTER RESERVOIR	UINTA	NUGGET	ACTIVE	CHEVRON USA INC
PATRICK DRAW	SWEETWATER	ALMOND UA-5 Water-CO2	ACTIVE	ANADARKO E&P CO LC
PEDRO	WESTON	BELLE FOURCHE	INACTIVE	GIFFIN DRILLING INC
POISON SPIDER WEST	NATRONA	MESAVERDE "B"	INACTIVE	QUICKSILVER RESOURCES
POISON SPIDER WEST	NATRONA	CODY-PHAYLES	INACTIVE	QUICKSILVER RESOURCES
POWELL	CONVERSE	FIRST FRONTIER	INACTIVE	MERIT ENERGY COMPANY
PRETTY WATER CREEK	SWEETWATER	PHOSPHORIA	INACTIVE	IBEX RESOURCES OPER LLC
RYCKMAN CREEK	UINTA	NUGGET	INACTIVE	BP AMERICA PROD CO
SADDLE ROCK	NATRONA	GRIEVE(MUDDY)	INACTIVE	MERIT ENERGY COMPANY
SAGE SPRING CREEK	NATRONA	DAKOTA	ACTIVE	BLACK BEAR OIL CORP
SALT CREEK	NATRONA	2ND WALL CREEK Water CO2	ACTIVE	HOWELL PETROLEUM CORP
SAND DUNES	CONVERSE	MUDDY Natural Gas	INACTIVE	MERIT ENERGY CO
SUN RANCH	NATRONA	MUDDY	INACTIVE	MERIT ENERGY COMPANY
SUNSHINE NORTH	PARK	TENSLEEP CO2 Pilot	ACTIVE	PHOENIX PRODUCTION CO
TEAPOT DOME	NATRONA	MUDDY	INACTIVE	DEPARTMENT OF ENERGY
TEAPOT DOME	NATRONA	2ND WALL CREEK	INACTIVE	DEPARTMENT OF ENERGY
THORNTON	WESTON	WALL CREEK Inert Gas	INACTIVE	DIAMOND B INDUSTRIES
WERTZ	CARBON	DARWIN-MADISON Water-CO2	ACTIVE	MERIT ENERGY COMPANY
WERTZ	CARBON	TENSLEEP Water-CO2	ACTIVE	MERIT ENERGY COMPANY
WERTZ	CARBON	FLATHEAD	ACTIVE	MERIT ENERGY COMPANY

WOGCC GAS DISPOSAL WELLS				
FIELD	COUNTY	FORMATION		OPERATOR
BEAVER CREEK 60	FREMONT	PHOSPHORIA	INACTIVE	DEVON ENERGY CO LP
BEAVER CREEK 100	FREMONT	PHOSPHORIA	ACTIVE	DEVON ENERGY CO LP
BEAVER CREEK 135	FREMONT	PHOSPHORIA	INACTIVE	DEVON ENERGY CO LP
BIG SAND DRAW 32	FREMONT	CHUGWATER	ACTIVE	NANCE PETROLEUM CORP
BRADY 5	SWEETWATER	ENTRADA-NUGGET	ACTIVE	ANADARKO E&P CO LP
BRADY 8	SWEETWATER	ENTRADA-NUGGET	ACTIVE	ANADARKO E&P CO LP
BURNT WAGON 11-19	NATRONA	2ND FRONTIER	INACTIVE	UNDERWOOD OIL & GAS
FRISBY SOUTH 14 AI TENN	WASHAKIE	PHOSPHORIA	ACTIVE	HILAND PARTNERS LLC
FRISBY SOUTH 23-1 BRENT	WASHAKIE	PHOSPHORIA	INACTIVE	HILAND PARTNERS LLC
GARLAND	BIG HORN	MADISON	ACTIVE	MARATHON OIL COMPANY
GOLDEN EAGLE 8	HOT SPRINGS	PHOSPHORIA	INACTIVE	SAGA PETOLEUM LLC OF COLORADO
GRASS CREEK 1 LU SHEEP	HOT SPRINGS	EMB-TEN-MAD	ACTIVE	MARATHON OIL COMPANY
HAMILTON DOME 90M	HOT SPRINGS	MADISON	INACTIVE	MERIT ENERGY CORPORATION
HAMILTON DOME U 76 13 P	HOT SPRINGS	MADISON	ACTIVE	MERIT ENERGY CORPORATION
LABARGE 2 18 AGI	LINCOLN	MAD-PHOS- WEB-AMS	ACTIVE	EXON MOBIL CORPORATION
LABARGE 3 3 14 AGI	LINCOLN	PHOS-WEB-MAD	ACTIVE	EXON MOBIL CORPORATION
MUSKRAT 3-1 FED	FREMONT	1ST FRONTIER	INACTIVE	NANCE PETROLEUM CORP
PRETTY WATER CREEK 1-2	SWEETWATER	PHOSPHORIA-WEBER	INACTIVE	IBEX RESOURCES OPERATING LLC
SALT CREEK 6SD2SW02	NATRONA	SUNDANCE	ACTIVE	HOWELL PETROLEUM COMPANY

WOGCC NATURAL GAS STORAGE PROJECTS				
FIELD OR UNIT	COUNTY	FORMATION	INJECTORS	OPERATOR
BRADY	SWEETWATER	WEBER	INACTIVE	ANADARKO EXPL & PROD CO LP
BILLY CREEK	JOHNSON	FRONTIER	ACTIVE	WILLISTON BASIN INTERSTATE PIPELINE
BUNKER HILL	CARBON	SHANNON	ACTIVE	KINDER MORGAIN
CHIMNEY BUTTES	SUBLETTE	ALMY "P" SAND	NO REPORT	FMC CORPORATION
CLEAR CREEK	UINTA	NUGGET	INACTIVE	CLEAR CREEK STORAGE COMPANY,LLC
ELK BASIN	PARK	CLOVERLY	ACTIVE	WILLISTON BASIN INTERSTATE PIPELINE
GARLAND	BIG HORN	CLOVERLY	INACTIVE	MARATHON OIL COMPANY
KIRK RANCH	FREMONT	CLOVERLY	ACTIVE	KINDER MORGAN
LEROY	UINTA	THAYNES	ACTIVE	QUESTAR PIPELINE COMPANY
MAHONEY DOME EAST	CARBON	DAKOTA-SUNDANCE-MUDDY	ACTIVE	KINDER MORGAN
MEADOW CREEK NORTH	JOHNSON	FIRST FRONTIER	INACTIVE	CONOCO, INCORPORATED
OIL SPRINGS	CARBON	DAKOTA-LAKOTA-SUNDANCE	ACTIVE	KINDER MORGAN
OREGON BASIN	PARK	EMBAR(PHOSPHORIA)	ACTIVE	MARATHON OIL COMPANY
PAINTER RESERVOIR	UINTA	NUGGET	PENDING	UNIVERSAL RESOURCES CORPORATION
WERTZ	CARBON	TENSLEEP	INACTIVE	AMOCO PRODUCTION COMPANY
WORLAND	WASHAKIE	FRONTIER	INACTIVE	DEVON ENERGY CORPORATION

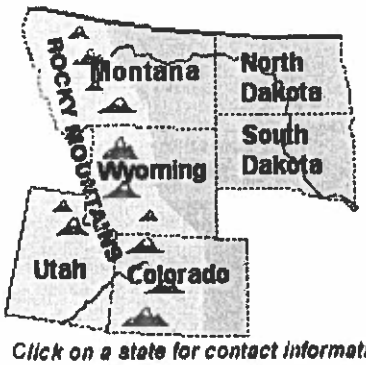
WDEQ CLASS I				
DISPOSAL WELLS	COUNTY	PERMIT NUMBER		
COLE CREEK F41-27G	Converse	WYS 009-009		Alpha Development Corporation
WHITNEY CANYON	Uinta	WYS 041-027		BP America Production Company
CARTER CREEK DISPOSAL	Lincoln	WYS 023-021		ChevronTexaco
CHRISTENSEN RANCH	Johnson	WYS 019-011		Cogema Mining, Inc
IRIGARAY WELLFIELD	Johnson	WYS 019-004		Cogema Mining, Inc
CORTEZ ENERGY COMMERCIAL	Converse	WYS 009-014		Cortez Energy, Inc
BEAVER CREEK	Fremont	WYS 013-032		Devon Energy Production Company
COASTAL CHEM,WELLS	Laramie	WYS 021-045		Dyno Nobel, Inc.
INJECTION WELL B5A-35	Sublette	WYS 035-002		EOG Resources, Inc.
HAMM NUMBER 1	Campbell	WYS 005-138		Kissack Water and Oil Service
HORSE CREEK FEDERAL 1-8	Weston	WYS 045-005		Kissack Water and Oil Service
KISSACK DISPOSAL WELL #1	Campbell	WYS 005-110		Kissack Water and Oil Service
KUEHNE 31-25	Campbell	WYS 005-070		Kissack Water and Oil Service
SHELL FOX #1	Campbell	WYS 005-081		Kissack Water and Oil Service
KFx DISPOSAL WELLS	Campbell	WYS 005-093		Landrica Development Company
FEDERAL HANAGAN 1-15	Fremont	WYS 013-059		Mel's Water Service
HIGHLAND CLASS I WELLS	Converse	WYS 009-011		Power Resources, Inc
NORTH BUTTE INJECTION	Campbell	WYS 005-030		Power Resources, Inc
RENO CREEK WELLS	Campbell	WYS 005-013		Power Resources, Inc
SMITH RANCH WELLS	Converse	WYS 009-035		Power Resources, Inc
C-H MINNELUSA UNIT WI #6	Campbell	WYS 005-072		Prima Exploration Inc
OLSEN NUMBER 1-A	Campbell	WYS 005-087		Quantum, Inc.
YELLOW CREEK DISPOSAL	Uinta	WYS 041-049		Questar Pipeline Company
GRAHAM RES 1-14 DISPOSAL	Lincoln	WYS 023-029		Schmid Oilfield Services
LLC-KENNETH DESELMS #1	Laramie	WYS 021-036		Wyoming Waste Water Disposal
LLC-CARPENTER	Uinta	WYS 041-016		Yellow Creek Production and Water Disposal

http://www.epa.gov/region8/water/uic/
Last updated on Wednesday, August 8th, 2007.

Region 8 - UIC

Underground Injection Control

In a cooperative effort between the Environmental Protection Agency (EPA), state and tribal governments, the **UIC Program** works toward protecting underground sources of drinking water (USDW) from contamination by regulating the construction and operation of injection wells. Underground injection wells are primarily used to dispose of wastes into the subsurface and have the potential to adversely affect USDWs. **Five classes of wells** are defined according to the type of waste that is disposed and where the waste is injected. Detailed information on regulations and guidances can be found at **EPA Regulations and Guidance.**



Click on a state for contact information

A brief description of the well types:

Class I: Industrial and Municipal Wells That Inject Beneath Lowermost USDW
Class II: Associated with Oil and Gas Production
Class III: Associated With Mineral Recovery
Class IV: Wells Injecting Hazardous Waste Into USDWs (Prohibited)
Class V: Injection Wells Not Included in Other Classes (typically Shallow Disposal Systems)

For more specific program information on the UIC program:

National UIC Program Homepage

Deep Injection Wells (Class I, II, III wells)

Shallow Waste Disposal System/Well (Class V wells)

UIC Reporting Forms (7520s)

News and Announcements:

Note: Many of the following links have documents that are provided in Adobe Acrobat (.pdf) format (PDF Info).

Colorado Division of Wildlife Foothills Wildlife Health Laboratory

EPA seeks public comment on Class V Draft Permit for the Colorado Division of Wildlife, Foothills Wildlife Health Laboratory located west of Fort Collins, Colorado on 4330 La Porte Avenue. Because laboratory waste fluids are going into a septic system, that septic system is a Class V well under UIC regulations.

Class V Draft Permit
Statement of Basis
Contents of Administration Record

Class V Carbon Geologic Sequestration Pilot Project
EPA has released a guidance for Class V Geological Sequestration Pilot Projects in March 2007. For additional information, select a link below.

Class V Guidance Q & A
Class V Guidance on Experimental Well Technology

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
WATER

JUL 5 - 2006

Dear State/Regional UIC Contact,

In light of research efforts underway on carbon dioxide (CO_2) geologic sequestration (GS), and ongoing Department of Energy (DOE) support for CO_2 sequestration activities, we wanted to communicate to you the United States Environmental Protection Agency's (EPA) views regarding its role in assisting these efforts. Also, because it is likely that several GS pilot projects, supported by the DOE-sponsored Regional Carbon Sequestration Partnerships, will begin to seek approval from EPA Regions or States to inject carbon dioxide within the next few months, we wanted to share our initial thoughts regarding the regulatory status of such projects under the Safe Drinking Water Act (SDWA). For more information on the Partnerships, please search on www.netl.doe.gov/technologies/carbon_seq/partnerships/partnerships.html.

The Intergovernmental Panel on Climate Change (IPCC) defines carbon capture and storage (CCS) as a process consisting of the separation of CO_2 from industrial and energy-related sources, transportation to a storage location, and long-term isolation from the atmosphere. CCS is considered one option in the portfolio of mitigation actions for the stabilization of atmospheric greenhouse gas concentrations. CCS has the potential to reduce overall mitigation costs and increase flexibility in achieving greenhouse gas emission reductions.

In August 2004, EPA convened the Geologic Sequestration Workgroup comprised of staff from EPA Headquarters Offices, the Regional Offices, and EPA's National Laboratories. The workgroup's charge is to coordinate EPA efforts on sequestration, monitor domestic and international technology and policy development, identify key research needs to address any environmental issues that may arise, develop and conduct risk assessments, and provide clear and consistent support to DOE and the public as the Regional Carbon Sequestration Partnerships plans are further developed.

Earlier this year, the Agency concluded that geologic sequestration of carbon dioxide through well injection meets the definition of "underground injection" in section 1421(d)(1) of the Safe Drinking Water Act. As a result, the Agency and Primacy States as co-regulators anticipate protecting underground sources of drinking water (USDWs) from any potential endangerment by CCS pilot projects using appropriate SDWA mechanisms, including the issuance of underground injection control (UIC) permits. Among the options being considered by EPA is a regulatory revision of its current UIC well classification system to more specifically address large volume injection of carbon dioxide.

In the interim, and until such time as the Agency further establishes regulatory, technical, and policy positions, EPA believes it is appropriate to follow the approach taken by States, such as Texas (*e.g.* the Frio Brine Project), and permit injection wells associated with research and development projects as UIC Class V experimental technology wells. The EPA Regions and Primacy States have existing authority to evaluate these permits on a case-by-case basis to ensure protection of USDWs. At this time, EPA has not determined whether, or in what manner these operations' well classification might change if and when, in the future, they begin to sequester CO_2 for permanent storage or disposal on an other-than research-and-development basis. Wells injecting CO_2 for the purpose of enhancing oil or natural gas production should continue to be regulated as Class II injection wells by the appropriate federal or state permitting agency.

EPA is also aware that there are several efforts underway to evaluate the applicability of existing federal and state laws and regulations to the underground injection of carbon dioxide for long-term sequestration, including efforts by DOE/NETL and the Regional GS Partnerships. These efforts may provide useful information that EPA will consider as it develops technical and/or regulatory guidance to ensure protection of underground sources of drinking water.

EPA will continue to evaluate the need for future technical and/or regulatory guidance to ensure that CCS injection wells do not endanger USDWs. EPA is preparing technical program guidance to assist EPA Regions and Primacy States in permitting those DOE-sponsored pilot projects that are not enhanced recovery projects as Class V experimental technology wells. We plan to share an initial draft of this guidance with you for comments in the near future. In the meantime, if you have any questions or concerns regarding CO_2 injection for sequestration, or have information that could benefit our research on this issue, please contact Bruce Kobelski, OGWDW's Geologic Sequestration Workgroup co-chair at (202) 564-3888, or kobelski.bruce@epa.gov.

Sincerely,

Cynthia C. Dougherty, Director
Office of Ground Water and Drinking Water

What is the UIC program?
Critical Initiatives
Classes of Injection Wells
Class I
Class II
Class III
Class IV
Class V
State UIC Programs
Regulations & Guidance

Geologic Sequestration of Carbon Dioxide

This page provides information on EPA's efforts related to the geologic sequestration of carbon dioxide.

Background

You will need Adobe Reader to view some of the files on this page. See EPA's PDF page to learn more.

Geologic sequestration is the process of injecting CO_2 from a source, such as coal-fired electric generating power plant through a well into the deep subsurface. Once underground, it is believed the CO_2 will be trapped, or sequestered, for a long period of time. Because the earth has widely-distributed geologic formations which have the capacity to contain and store the injected CO_2, geologic sequestration may become a major technology used to mitigate climate change. Current estimates indicate that the storage capacity of these geologic formations is extremely large and widespread. With proper site selection and management, geologic sequestration could play a major role in reducing emissions of CO_2. (IPCC 2005).

- Intergovernmental Panel on Climate Change Special Report on Carbon Dioxide Capture and Storage EXIT Disclaimer

There are a series of CO_2 pilot projects funded by the Department of Energy that are being planned or are underway. A number of these projects will include geologic sequestration. Underground injection of CO_2 for the purpose of sequestration is regulated under the Safe Drinking Water Act (SDWA) by the Underground Injection Control (UIC) program.

Top of Page

Class V Experimental Technology Well Guidance for Pilot Geologic Sequestration Projects

EPA has finalized UIC Program Guidance #83 *Using the Class V Experimental Technology Well Classification for Pilot Geologic Sequestration Projects*. The guidance will assist state and EPA regional UIC programs in processing permit applications for projects designed to assess the efficacy of CO_2 injection for the purpose of geologic sequestration.

- **Using the Class V Experimental Technology Well Classification for Pilot**

Geologic Sequestration Projects, March 2007

- Final March 2007 Guidance PDF (23pp, 455K)
- Questions and Answers on the Final Guidance

- Letter: EPA's Role in DOE's Carbon Dioxide Geologic Sequestration Activities, July 5, 2006 (PDF 2pp, 538K)

As these projects move forward, they will provide information about how CO_2 behaves in the sub-surface and additional technical information on proper well construction and operational procedures. The information from these projects will be used to decide if there is a need to develop new UIC regulations for commercial-scale CO_2 injection projects.

Top of Page

Workshops on Geological Sequestration

EPA is sponsoring or co-sponsoring workshops to explore the technical aspects of CO_2 geologic sequestration and to share ideas with stakeholders and experts.

Upcoming workshops

- Technical Workshop on Financial Responsibility and Risk Analysis. This workshop is tentatively planned for September or October, 2007. Information on the workshop will be provided as the date approaches.

Completed workshops

- Geological Setting and Area of Review Considerations for CO_2 Geologic Sequestration. Washington, DC; July 10-11, 2007
- Modeling and Reservoir Simulation for Geologic Carbon Storage. Houston, TX; April 6-7, 2005.
  - Agenda: Workshop on Modeling and Reservoir Simulation for Geologic Carbon Storage. (PDF 2pp, 2 K)
  - Summary: Workshop on Modeling and Reservoir Simulation for Geologic Carbon Storage. (PDF 1p, 20K)
- Risk Assessment for Geologic CO_2 Storage. Portland, OR; September 28-29, 2005
  - Agenda: EPA Workshop on Risk Assessment for Geologic CO2 Storage. (PDF 3pp, 196K)
  - Summary: EPA Workshop on Risk Assessment for Geologic CO2 Storage. (PDF 1p, 11K)
- Site Characterization for CO_2 Geological Storage. Berkeley, CA; March 20-22, 2006.
  - Agenda: International Symposium on Site Characterization for CO2 Geological Storage. (PDF 11pp, 155K)
  - Summary: International Symposium on Site Characterization for CO2 Geological Storage. (PDF 1p, 20 K)
- State Regulators Workshop on Geologic Sequestration of Carbon Dioxide. San Antonio, TX; January 24, 2007
  - Agenda: State Regulators Workshop on Geologic Sequestration of Carbon Dioxide. (PDF 1 p, 15 K)
  - Summary: State Regulators Workshop on Geologic Sequestration of Carbon Dioxide. (PDF 1 p, 11K)
- EPA Technical Workshop on Well Construction and Mechanical Integrity Testing. Albuquerque, NM; March 14, 2007
  - Agenda: EPA Technical Workshop on Well Construction and Mechanical Integrity Testing. (PDF 1p, 23K)
  - Summary: EPA Technical Workshop on Well Construction and Mechanical Integrity Testing. (PDF 1p, 12K)

Top of Page

Links

Additional information on climate change and sequestration can be found at EPA's Global Warming and the Department of Energy web sites.

- EPA's Climate Change site
  - Climate Change - Greenhouse Gas Emissions: Geologic Sequestration
- Department of Energy Carbon Sequestration Program

Top of Page