

**Platt, Steve**

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**From:** Stephanie Rindosh <stephanie.rindosh.buuj@statefarm.com>  
**Sent:** Friday, August 23, 2013 11:35 AM  
**To:** Platt, Steve  
**Subject:** injection well at Brady Township

I am writing to oppose the injection well at Brady Township there is not enough Proof it will not harm Water. Also Why can't they treat this water instead of damaging the earth's infrastructure even more.

Stephanie Rindosh  
Agent  
43 North Brady Street  
DuBois, PA 15801  
814-371-6840



**Platt, Steve**

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**From:** Rick & Marianne Atkinson <marianne5@windstream.net>  
**Sent:** Thursday, August 08, 2013 7:57 AM  
**To:** Johnson, KarenD; Platt, Steve  
**Subject:** Windfall Public Notice  
**Attachments:** Public Notice Brady Township Windfall DIW.pdf

Hi Karen and Steve!

I have 2 questions about the attached document:

1. Is there any reason that we cannot request a public hearing?

**§ 124.11 Public comments and requests for public hearings.**

( *Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).* ) During the public comment period provided under § 124.10, any interested person may submit written comments on the draft permit or the permit application for 404 permits when no draft permit is required (see § 233.39) and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in § 124.17.

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2. Why is the new comment period only for 30 days and not 60 days?

**§ 124.14 Reopening of the public comment period.**

(a)(1) The Regional Administrator may order the public comment period reopened if the procedures of this paragraph could expedite the decision making process. When the public comment period is reopened under this paragraph, all persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Regional Administrator's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must submit all reasonably available factual grounds supporting their position, including all supporting material, by a date, not less than sixty days after public notice under paragraph (a)(2) of this section, set by the Regional Administrator. Thereafter, any person may file a written response to the material filed by any other person, by a date, not less than twenty days after the date set for filing of the material, set by the Regional Administrator.

Thanks,

Marianne Atkinson

Marianne

**Platt, Steve**

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**From:** Jill Smith <travisandjillsmith@gmail.com>  
**Sent:** Thursday, August 29, 2013 4:47 PM  
**To:** Platt, Steve  
**Subject:** Underground Injection Control Permit PAS2D020BCLE Comments  
**Attachments:** EPA letter Sep1.rtf

August 29, 2013

Mr Stephen Platt

EPA Region III

Ground Water & Enforcement Branch (3WP22)

Office of Drinking Water & Source Water Protection

1650 Arch Street

Philadelphia, Pennsylvania 19103

Dear Mr. Platt,

This letter is being written to express my concerns and comments on the proposed issuance of an Underground Injection Control (UIC) permit, PAS2D020BCLE, to Windfall Oil and Gas, Inc. (Windfall). I will limit my concerns to the induced seismicity and earthquake issues although there are other pertinent concerns such as water quality/contamination.

The first article I would like you to be aware of is in Science Magazine dated July 12, 2013. It is written by William L. Ellsworth. Mr. Ellsworth is a part of the Earthquake Science Center, U.S. Geological Survey, Menlo Park, California 94025. This article specifically addresses the fact that earthquakes with a magnitude greater than or equal to 3 in the United States mid-continent have increased steadily from 2001 to present with a peak of 188 earthquakes in 2011. Before 2001 these mid-continent earthquakes averaged about 21 events per year. The increasing amount of earthquakes is thought to be human-induced. Fracking is part of the problem but

wastewater disposal by injection into deep wells poses a higher risk, because this practice can induce larger earthquakes. For example, several of the largest earthquakes in the U.S. mid-continent in 2011 and 2012 may have been triggered by nearby disposal wells. The largest of these was a magnitude 5.6 event in central Oklahoma that destroyed 14 homes and injured two people. The mechanism responsible for inducing these events appears to be the well-understood process of weakening a preexisting fault by elevating the fluid pressure. Is this not what Underground Injection Wells and fracking do?

This article also states the quantity and timeliness of information on injection volumes and pressures reported to regulatory agencies are far from ideal for managing earthquake risk from injection activities. In addition, seismic monitoring capabilities in many of the areas in which wastewater injection activities have increased are not capable of detecting small earthquake activity that may presage larger seismic events. So what this means to my family and neighbors is that by the time your agency is aware of problem it will be too late. The timeliness

of information has always been a problem with these companies as evidenced by problems caused by EXCO Resources in our area.

According to another article published by the National Academies of Sciences (NAS) and placed on the [www.energy.gov](http://www.energy.gov) website, the factor that appears to have the most direct consequence for inducing seismicity is net fluid balance – the total balance of fluid introduced into or withdrawn from the subsurface. "Energy projects that are designed to maintain a balance between the amount of fluid being injected and withdrawn, such as most oil and gas development projects, appear to produce fewer seismic events than projects that do not maintain fluid balance," an NAS report says. "Future research is required to better understand and address the potential risks associated with induced seismicity." Has this future research be conducted since this article was written in 2012? Where and when will the fluid be withdrawn if this Underground Injection Well is allowed to operate.

When I did a basic Google search for research on this specific subject it generated 313,000 results in 0.34 seconds. This many results concerns me because you address the induced seismicity and earthquake issues as unlikely to pose a risk. Although these issues are currently affecting areas in the midwest with dramatic results. I think further research on this subject should be conducted before any more Underground Injection wells are allowed to operate in an area where old fractures/faults are present due to previous coal mining and abandoned gas wells.

My family has already dealt with consequences of living near a gas well that recently was being reclaimed after being abandoned for years. We had lived at our home for 5 years without any water problems from our well or well pump. After EXCO Resources began working at the gas well, our water pressure began to drop and we were having sediment concerns. These problems resulted in additional costs for us and eventually resulted in purchasing a new well pump. Both EXCO Resources and DEP stated the reclamation of the gas well could have, but also may not have, caused our water pressure issues. We were told there could be many things that could have caused our water problems and that it just so happened to have coincided with the reclamation of the gas well. We also had many concerns with the company utilizing Gearhart Lane to have access to the gas well site. Gearhart Lane is a private lane which is exclusively maintained by our family. The large trucks, equipment, and trailers caused havoc on our road since the road was not build to withhold heavy vehicle traffic. More recently our well became artesian after the old gas well was plugged. Because we did not have a water diminution or a current quality issue we did not fall within the current Oil and Gas laws. EXCO Resources had to do nothing to correct the excessive water problem. We had to pay out of our pockets to have the water diverted before it began to intrude into our basement. Over four months later EXCO Resources then decided that they would pay for the water diversion if we signed a release of liability and no admission of fault statement. This statement also included wording stating that any future problems that may arise will be our full responsibility. This should attest to the responsible and timeliness actions that result from business with these such companies.

Placing fines and post approval restrictions on underground injection wells is the worst, less proactive thing that can be done. Halting operation of future underground injection wells until more research into better and safer alternatives is what should be happening. I have noticed the moratoriums that are placed are after problems have occurred or in areas where most of the people that regulate their operations live. The U.S. Environmental Protection Agency needs to live up to its name and protect the environment before it is destroyed. Viewing our water sources as a commodity and not protecting them only hurts our children in the long run.

I appreciate your time and hope the EPA will take into account my family's concerns.

Sincerely,

Travis P. Smith

315 Gearhart Lane

DuBois, PA 15801

[travisandjillsmith@gmail.com](mailto:travisandjillsmith@gmail.com)

814-583-5618





**Platt, Steve**

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**From:** Abigail Testament <atestament@gmail.com>  
**Sent:** Sunday, September 08, 2013 12:57 PM  
**To:** Platt, Steve; graceann bergin  
**Subject:** waste injection well

September 5, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local reservoir.
- 2) Stating seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to a water source will have happened before shutdown procedures would be taken.
- 4) Local area has already experienced seismicity concerns when the affects of an earthquake shook our local homes around a year ago.
- 5) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in our township.
- 6) Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.
- 7) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing activity.
- 8) No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

10) Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area.

Sincerely,  
Abigail Testament



Reply



Forward

**Platt, Steve**

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**From:** Nora <thejenneys@windstream.net>  
**Sent:** Saturday, September 07, 2013 4:49 PM  
**To:** Platt, Steve  
**Subject:** Highland DIW

September 7, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local reservoir.
- 2) Stating seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to a water source will have happened before shutdown procedures would be taken.
- 4) Local area has already experienced seismicity concerns when the affects of an earthquake shook our local homes around a year ago.
- 5) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in our township.
- 6) Prior public hearing testimony presented demonstrated residents concerns of fault lines

present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.

7) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing activity.

8) No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

10) Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area.

Sincerely,

Nora Jenney 814-583-5321 1222 Highland St Ext DuBois PA 15801

**Platt, Steve**

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**From:** rustyzeno@comcast.net  
**Sent:** Sunday, September 08, 2013 8:27 PM  
**To:** Platt, Steve  
**Subject:** Brady Township, Pa. Clearfield County, proposed injection well

September 8, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir.

2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."

- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.
  
- 4) Local area has already experienced seismicity concerns when the affects of an earthquake shook our local homes around a year ago.
  
- 5) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.
  
- 6) Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.
  
- 7) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.
  
- 8) No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.
  
- 9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here with much info that could be cited: [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.
  
- 10) Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. **EXCO OPERATED THE IRVIN**

**INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area.

Sincerely,

Henry Madere

213 South Ave

DuBois, Pa 15801





**Platt, Steve**

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**From:** honey0510@comcast.net  
**Sent:** Sunday, September 08, 2013 7:13 PM  
**To:** Platt, Steve  
**Subject:** RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

September 8, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

1) The DuBois Reservoir and the newly dug water wells lie within the fault lines in Rockton. I am again submitting the City of DuBois commissioned geological study when the fault lines were first discovered in 1955. Prior public hearing testimony presented demonstrated residents concerns of fault lines that exist. Fluids traveling along the fault could t flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline. This is just a problem waiting to happen.

2) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken. In my life, I have seen the how slowly response time is regarding fracking-related disasters. Recent examples include the Penfield, PA, well blow-out which spewed for over 18 hours and then the damage was down played. The Gulf of Mexico well blow-out is another example of a huge corporation who could not plug the spill even with their millions of dollars in equipment and manpower.

3) 2) As a 63-year resident of Clearfield County, I never experienced earthquake tremors in Clearfield County until 2 years ago when fracking in Youngstown, Ohio, sent off mult-state seismic waves. Youngstown, Ohio, never experienced earthquakes either and the same goes for Arkansas. How many more states need join these ranks before the EPA understand the correlation between seismic activity and earthquakes in areas that never experience earthquakes before?

No one can predict the future and taking a chance with our properties and water sources is an unsafe risk. This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City municipal water source and all the local property owners in the review area.

Sincerely,

Diane Bernardo

DuBois City Council

8 Tower Lane

DuBois, PA 15801

**Platt, Steve**

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**From:** brickie3@comcast.net  
**Sent:** Sunday, September 08, 2013 5:52 PM  
**To:** Platt, Steve  
**Cc:** brickie3@comcast.net  
**Subject:** Re: PAS2D020BCLE- Brady Township, Clearfield County, PA

September 5, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is our response to the EPA Public Comment period for seismicity concerns dealing with the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that would directly relate to our request to deny this permit and seismicity is our biggest concern to contaminate area water supplies and local, abandoned coal mines.

Our neighbor an engineer trained to understand the construction and pressure of this proposed equipment presented in-depth information on the dangers our area faces due to the proposed construction and how the fault lines in the 1/4 mile change the affects of the review area. His presentation showed fluids would migrate along a fault line towards the old abandoned coal mines and two old deep gas wells. His testimony and other neighbors stressed that allowing harmful fluids to flow up around old deteriorated casings towards our old coal mines and private water wells would impact USDW's. Other neighbors presented how they have water wells affected by other deep gas wells in our area already. The neighbors showed fracturing occurred for deep gas well drilling in the review area. All these factors combined would be dangerous mixed with any thing that shakes our ground.

Permitting a disposal injection well and taking any chance with our water resources or contamination of USDWs along with abandoned coal mines is not an option that should be allowed with our homes sitting over these coal mines & also abandoned deep gas wells. Another public hearing should be held since some residents left before the residents gave public comment due to the length of the previous EPA hearing since it started over an hour late.

Studies (US Geological Survey) are finding disposal injection wells have been tied to seismicity concerns. Any pressure could cause sesimicity as we experienced already around a year ago after affects here from an earthquake. The risk is not acceptable especially since specific studies aren't complete on injection wells located in residential areas. Especially when seismic events have been experienced in Clearfield County that

include regular and man made actives. Protecting residents against USDW contamination through monitoring pressure that would tell us of failure after the fact isn't acceptable when we rely on our water sources daily.

Man made blasting has been happening in our township and will continue to happen, since we learned a local coal company (Black Cat) just received permission to work for years into the future in Brady Township. Residents of

Brady Township have experienced homes affected from the blasting with negative results even though studies are done before blasting occurs. Man made blasting will continue for coal and is also happening for the gas industry. Other neighbors have experienced loss of water wells due to changes from the gas industry. Major seismicity concerns come from man made blasting that potentially would affect the man made casing around the proposed injection well. Anything man made has the potential to fail and man made blasting in the area has the potential to contaminate USDWs if the proposed disposal injection well is permitted. These are definite risks of induced seismicity by man. Another man made case of seismicity concerns happened in our area from a house explosion due to a natural gas leak. No one knows when or if the group could shake in our area with the increase in earthquakes.

Please deny this permit. We have been trying to sell our home recently and the concerns of a proposed disposal injection well have harmed the local housing market. As a local home owner, I feel strongly that this has detrimental affects to our environment that make it hard to sign the documentation for selling our house to others.

Thank you for taking time to reopen the public comments and consider seismicity issues further. The rising incidents in other states has raised local concerns that further demonstrate the need for more studies and research on injection wells.

Sincerely,

Randall and Valerie Powers

## Platt, Steve

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**From:** Melinda Hall <mhall12@gmail.com>  
**Sent:** Monday, September 09, 2013 9:14 AM  
**To:** Platt, Steve  
**Subject:** PAS2D020BCLE - Brady Township, Clearfield County, PA

September 9, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

I would like to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

1- Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir. However, simply monitoring pressure is not enough and will not protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.

2- Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."

3- Human activity induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.

4- Prior public hearing testimony presented demonstrated residents' concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.

5- The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.

6- One study of the recent increase in seismic activity raises the issue of whether injection wells are responsible for this increase in earthquakes. (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California, [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

7- Residents aren't willing to accept the risk of it "might not happen" when they have already seen mistakes happen first hand in our area at another injection well that is located in Bell Township, Clearfield County. **EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the increased risk of earthquakes due to known faults within the Area of Review.

Sincerely,

Melinda Hall

## Rivera, Nina

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**From:** timothy roschke <tcropets2@yahoo.com>  
**Sent:** Monday, September 09, 2013 12:32 PM  
**To:** Platt, Steve  
**Subject:** Brady Township, Clearfield County, PA

September 9, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local reservoir.
- 2) Stating seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to a water source will have happened before shutdown procedures would be taken.
- 4) Local area has already experienced seismicity concerns when the affects of an earthquake shook our local homes around a year ago.

5) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in our township.

6) Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.

7) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing activity.

8) No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

10) Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area.

Sincerely,  
Timothy C. Roschke



**Platt, Steve**

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**From:** Dick Castonguay <dcast@sandytownship.org>  
**Sent:** Monday, September 09, 2013 9:09 AM  
**To:** Platt, Steve  
**Subject:** Underground Injection Control Permit PAS2D020BCLE  
**Attachments:** Richard Castonguay.vcf

Dear Mr. Platt:

I am writing to voice the concern of the Board of Sandy Township Supervisors with the potential for induced seismic activity as a result of the proposed injection well listed above. We hope that the EPA will give an increased emphasis relating to this issue in light of the numerous residential homes located proximate to the proposed well site.

Sincerely

Dick Castonguay  
Manager





**Platt, Steve**

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**From:** graceann bergin <gbergin007@gmail.com>  
**Sent:** Monday, September 09, 2013 3:37 PM  
**To:** Platt, Steve  
**Subject:** Deep Injection Well on Highland Ext. Brady Township

September 9, 2013

EPA Region III

Ground Water & Enforcement Branch (3WP22)

Office of Drinking Water & Source Water Protection

1650 Arch Street

Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township

Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that

requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that

is near so many private wells, multiple municipal water sources and our local municipal water reservoir.

2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further

study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."

3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will

have happened before shutdown procedures could be taken.

4) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the

past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate

in Brady township.

5) Prior public hearing testimony presented demonstrated residents' concerns of fault lines present in the review area that

deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern

and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old

casings or a syncline is just a way to cause trouble in the future for residents.

6) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids

may lubricate the faults causing seismic activity and possible earthquakes.

7) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July

12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California.

Article is here [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent

happenings in four states cause grave concerns that back up denying this permit.

8) Residents aren't willing to accept the risk of it "might not happen" when they have already seen mistakes happen first

hand in our area at another injection well that is located in Bell Township, Clearfield County. EXCO OPERATED THE IRVIN

INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH

PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION

OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD

FAILED MECHANICAL INTEGRITY.

This permit for a proposed disposal injection well in Brady Township should be denied due to the increased risk of

earthquakes due to known faults within the Area of Review.

Sincerely,

Grace Bergin  
216 E, Scribner Ave.  
Du Bois, PA 15801-2250



**Platt, Steve**

---

**From:** Paul Staniszewski <paulstan@windstream.net>  
**Sent:** Monday, September 09, 2013 2:08 PM  
**To:** Platt, Steve  
**Subject:** Seismicity Concern

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir.
- 2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.
- 4) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.
- 5) Prior public hearing testimony presented demonstrated residents' concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.

6) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.

7) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

8) Residents aren't willing to accept the risk of it "might not happen" when they have already seen mistakes happen first hand in our area at another injection well that is located in Bell Township, Clearfield County. **Exco operated the irvin injection well at a pressure exceeding its permitted maximum injection pressure for a three month period in 2010. Exco violated the terms of its uic permit by failing to immediately cease injection of brine into the irvin a-19 brine disposal well ("irvin well") upon discovering that the well had failed mechanical integrity.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the increased risk of earthquakes due to known faults within the Area of Review.

Sincerely,

Paul Staniszewsk



## Platt, Steve

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**From:** TED AND RONA <ronated@comcast.net>  
**Sent:** Monday, September 09, 2013 10:24 AM  
**To:** Platt, Steve  
**Subject:** Highland St.Ext injection well, DuBois, Pa. 15801

September 8, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir.
- 2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.
- 4) Local area has already experienced seismicity concerns when the affects of an earthquake shook our local homes around a year ago.
- 5) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.
- 6) Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.
- 7) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.
- 8) No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here with much info that could be cited:[http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

10) Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. **EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area.

Sincerely, Theodore J. and Rona C. Crytser

## Platt, Steve

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**From:** tdmars@windstream.net  
**Sent:** Tuesday, September 10, 2013 11:56 AM  
**To:** Platt, Steve  
**Subject:** PAS2D020BCLE - Brady Township, Clearfield County, PA

September 10, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22) Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir.
- 2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.
- 4) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.
- 5) Prior public hearing testimony presented demonstrated residents' concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.
- 6) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.
- 7) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/)). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

8) Residents aren't willing to accept the risk of it "might not happen" when they have already seen mistakes happen first hand in our area at another injection well that is located in Bell Township, Clearfield County. EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.

This permit for a proposed disposal injection well in Brady Township should be denied due to the increased risk of earthquakes due to known faults within the Area of Review.

Sincerely,  
Dennis and Terry Marsh  
1379 Highland Street Extension  
DuBois, PA 15801

James & Sherry Green  
815 Reynoldsville Sykesville Road  
Reynoldsville, PA 15851

EPA Region III  
Ground Water & Enforcement Branch (3WP22) Office  
of Drinking Water & Source Water Protection 1650  
Arch Street  
Philadelphia, PA 19103

This is a letter to provide public comments on the seismic issues of concern to area residents for the proposed permit for Brady Township Underground Injection Control Permit PAS2D020BCLE. This letter is to request denying the permit based on recent seismic concerns in various states including Texas, West Virginia, Arkansas, Ohio and Oklahoma. It was mentioned in prior public comments that it has long been known by scientists that injection wells cause earthquakes and an example was used from Colorado.

A recent article "Tremors in Timpson" by Adam Duvernay on September 4, 2013 gives examples of what injection wells are doing to a stable area. The article states, "Timpson, Texas is located in the middle of a North American tectonic plate and should be geologically stable.". The area around Timpson is home to at least 20 commercial disposal injection wells, which seems to be the reason for the earthquakes that have happened since 2011. Robert Williams was quoted in the article since he is a geophysicist for the U. S. Geological Survey and the article mentions geologists are pointing to injection wells as the cause of earthquakes across our nation. Williams was quoted in the article, "we don't know where all the faults are, and we don't know which are susceptible to being reactivated."

Local residents in the surrounding area haven't built homes to withstand earthquakes or budgeted for earthquake insurance. The news article that residents have seen since last year talk about all the earthquakes being experienced near injection wells, injection wells being shut down due to earthquakes and the USGS has done studies that demonstrate cause for concern.

All these seismic concerns should be more than enough to deny this permit. Other reasons include: specific studies on injection wells need to be done before injection wells are located in a residential areas; injections wells shouldn't be located closely to private water wells, municipal water sources, water towers or water reservoirs; specific studies to area should be completed before it is assumed that "seismic events are extremely rare"; monitoring pressure isn't enough to protect residents from an injection well failure since damage to a water source will have happened before shutdown procedures are taken; area has experienced seismicity concerns due to an earthquake; man induced seismic

concerns have already affected homes (coal mining, Marcellus drilling, and a natural gas explosion); public hearing testimony gave concerns of fault lines in the review area; a syncline is located in the area; fault lines that exist cause concern that fluids may travel along the fault to flow towards abandoned deep gas wells and abandoned coal mines and old casings for gas wells may allow contamination of USDWs; underground pressure changes may cause seismic activities; fluids may lubricate the faults causing seismic activity; a USGS study presents concerns about injection wells and seismic activities; other recent happenings in various states cause present concerns; and we refuse to accept the risk of it "might happen" when already mistakes have happened in our area with the Irvin Injection Well that was over pressurized for three months with no one knowing and stopping the injection well operations. The EPA is unable to predict the future so no chances should be taken with our water, USDWs and homes. Injection wells should be deemed an unsafe risk near any faults, so no chances are taken.

Sincerely,

~;/~ ~j}~

James & Sherry Green

**Platt, Steve**

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**From:** Leslie Barr <leslieannbarr@yahoo.com>  
**Sent:** Tuesday, September 10, 2013 3:24 PM  
**To:** Platt, Steve  
**Cc:** Mengle Memorial Library  
**Subject:** RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

September 10, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismic concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during December 2012 to deny this permit. Seismic activity was one of the concerns since area water sources could be contaminated.

No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

Studies need to be specific to our area before it is assumed that "seismic events are extremely rare." Local area has already experienced seismic concerns when the affects of an earthquake shook our local homes around a year ago. Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.

Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken. The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.

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9) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here with much info that could be cited: [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. **EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY**

**CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area. As a citizen living within a 5 mile radius, this is a topic of great concern to me.

Sincerely,

Leslie Barr  
310 Olive Ave  
DuBois, PA 15801





## CITY OF DuBOIS, PENNSYLVANIA

16 W. SCRIBNER AVE. • P.O. BOX 408 • DuBOIS, PENNSYLVANIA 15801

TELEPHONE: (814) 371-2000  
FAX: (814) 371-1290  
TTY/TTD ONLY: (800) 654-5984

Planning Commission

September 10, 2013

EPA Regions III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
Attn: Mr. Steve Platt  
1650 Arch Street  
Philadelphia, PA 19103

Dear Mr. Platt:

This letter is in response to EPA's request for comment concerning injection control permit PAS2D02CLE applied for by Windfall Gas and Oil in Brady Twp. Clearfield County, PA.

The EPA Supplement to the Statement of Basis states that seismic events from 1938 to 2012 are extremely rare in Clearfield County. Are they rare because there currently are no wells for waste water disposal located in Clearfield County? If there are waste water disposal wells, are they located in developed residential neighborhoods serviced by private and municipal wells and reservoirs in Clearfield County or elsewhere. We know of none and we are not interested in testing the water so to speak. In the case of the proposed windfall well "extremely rare" referencing seismic events is simply not good enough.

The EPA Supplement of Basis reasons that since the maximum pressure proposed to operate the Windfall well is less than the initial pressure in fracturing, then the injection zone for future fractures could possibly be limited; however, it would not protect against the reduction in friction resulting from the injection fluids in the fracture zone. The removal of friction increases the possibility of a sympathetic reaction to a large earthquake event. The suggestion in the EPA supplement of Basis that constant monitoring will protect against the effects of a failure at a well site is questionable. The time between when a monitor warns of a system failure at an injection well operation until operation shutdown is enough time for damage to the environment which includes aquifers and ground water.

Also, there is a big difference between studies in open areas and studies in areas like ours. This area was heavily mined a century ago leaving catacombs beneath the ground on which this entire area built their towns, schools, churches and roads. A fault line runs from Luthersburg to the DuBois reservoir area and beyond.

We understand that the EPA preliminary draft report distributed in Dec. 2012 to technical experts who had contributed to the report could have some answers or guidelines on the issue. It seems this report is for internal use only. Is this the case?

See Science 12 July 2013 Vol 341 No. 6142 DOI:1126/Science 1225942.  
See Geological Survey (recent)  
See EPA Draft report Dec2012

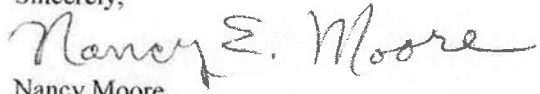
*"Gateway To Big Game Country"*

At the public hearing in Brady Township I and others asked if the EPA decision makers who heard our testimony would accept our invitation to view the site so you could see for yourself what we are concerned with. The answer was yes. The invitation is still there.

We recognize the economic impacts of this industry. Our primary concern is with the threat of developing waste water injection wells and like industry facilities in this inappropriate area. We do not want to find out, and we think neither do you, that the people in this area were right, when it is too late.

Your attention to our concerns will be appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Nancy E. Moore". The signature is written in dark ink and is positioned above the printed name.

Nancy Moore  
City of DuBois Planning Commission Chairman



## CITY OF DuBOIS, PENNSYLVANIA

16 W. SCRIBNER AVE. • P.O. BOX 408 • DuBOIS, PENNSYLVANIA 15801

TELEPHONE: (814) 371-2000  
FAX: (814) 371-1290  
TTY/TTD ONLY: (800) 654-5984

Planning Commission

September 10, 2013

EPA Regions III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
Attn: Mr. Steve Platt  
1650 Arch Street  
Philadelphia, PA 19103

Dear Mr. Platt:

This letter is in response to EPA's request for comment concerning injection control permit PAS2D02CLE applied for by Windfall Gas and Oil in Brady Twp. Clearfield County, PA.

The EPA Supplement to the Statement of Basis states that seismic events from 1938 to 2012 are extremely rare in Clearfield County. Are they rare because there currently are no wells for waste water disposal located in Clearfield County? If there are waste water disposal wells, are they located in developed residential neighborhoods serviced by private and municipal wells and reservoirs in Clearfield County or elsewhere. We know of none and we are not interested in testing the water so to speak. In the case of the proposed windfall well "extremely rare" referencing seismic events is simply not good enough.

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Also, there is a big difference between studies in open areas and studies in areas like ours. This area was heavily mined a century ago leaving catacombs beneath the ground on which this entire area built their towns, schools, churches and roads. A fault line runs from Luthersburg to the DuBois reservoir area and beyond.

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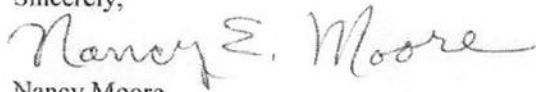
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Your attention to our concerns will be appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Nancy E. Moore". The signature is written in dark ink and is positioned above the typed name.

Nancy Moore  
City of DuBois Planning Commission Chairman

## Platt, Steve

---

**From:** Leslie Barr <leslieannbarr@yahoo.com>  
**Sent:** Tuesday, September 10, 2013 3:24 PM  
**To:** Platt, Steve  
**Cc:** Mengle Memorial Library  
**Subject:** RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

September 10, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

This letter is to provide comment on the EPA Public Comment period for seismic concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during December 2012 to deny this permit. Seismic activity was one of the concerns since area water sources could be contaminated.

No one can predict the future and taking a chance with our properties and water sources is an unsafe risk.

Studies need to be specific to our area before it is assumed that "seismic events are extremely rare." Local area has already experienced seismic concerns when the affects of an earthquake shook our local homes around a year ago. Prior public hearing testimony presented demonstrated residents concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.

Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken. The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.

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Resident aren't willing to accept the risk of it "might happen" when they have already seen mistakes happen first hand in our area at another injection well that was rurally located. **EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY**

**CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the proximity of a City and all the local property owners in the review area. As a citizen living within a 5 mile radius, this is a topic of great concern to me.

Sincerely,

Leslie Barr  
310 Olive Ave  
DuBois, PA 15801

## Platt, Steve

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**From:** tim bodt <mittdob@hotmail.com>  
**Sent:** Wednesday, September 11, 2013 9:41 AM  
**To:** Platt, Steve; tim bodt  
**Subject:** FW: Waste Well Near City

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Date: Wed, 11 Sep 2013 01:15:36 -0700  
From: highlanddiw@yahoo.com  
Subject: Re: Waste Well Near City  
To: mittdob@hotmail.com

Just in case you need the email address for the EPA it is

platt.steve@epa.gov

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**From:** tim bodt <mittdob@hotmail.com>;  
**To:** highlanddiw@yahoo.com <highlanddiw@yahoo.com>; tim bodt <mittdob@hotmail.com>;  
**Subject:** Waste Well Near City  
**Sent:** Wed, Sep 11, 2013 3:43:20 AM

Dear EPA,

This proposed Injection Well in Brady PA off Highland Ave. is a very dangerous and ill fated idea. If the EPA approves this they will destroy their credibility and further undermine the public confidence in Government. The people prefer caution to risk. This is about a mile as the crow flies from my home circa 1925 in the adjoining 3rd class city of Du Bois PA.

Even a minor quake could seriously compromise the structural integrity of all these homes.

The existence of a waste well and the very real threat of a quake alone devalues our investment.

These gas lines are always being repaired at present. A quake like the ones south of Youngstown Ohio would do extensive damage and could leave us without heat or running water.

And for what purpose? As one who only years ago thought this gas development was at least an interim alternative energy plan has since been forced to abandon that naive belief and fully recognize this greedy self serving, multinational, resource grabbing, earth raping program for what it is, a big mistake. Please recognize your own purpose and protect the environment and the people from this monstrous development.

Tim Bodt, 216 East Scribner Ave. Du Bois PA 15801





## Platt, Steve

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**From:** Amber Nolder <ambernolder@gmail.com>  
**Sent:** Wednesday, September 11, 2013 9:31 AM  
**To:** Platt, Steve  
**Subject:** RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

September 9, 2013

EPA Region III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

Dear EPA:

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

The bulk of this letter was drafted by a friend of mine who has been very active in researching and trying to understand the implications of this injection well on her neighborhood. I believe she makes many relevant points and I wish to enter this comment in support of her detailed coverage of the issue. After hearing about the linking of earthquakes in Youngstown, Ohio to injection of frackwater for underground storage, I am highly concerned about the injection well proposed for Brady Township. I appreciate the opportunity to express my views.

This letter is to provide comment on the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit PAS2D020BCLE. The EPA received extensive comments during 2012 that requested this permit be denied and seismicity was one of the listed concerns since area water sources could be contaminated.

- 1) Studies specific to injection wells need to be done before this proposed injection well is located in a residential area that is near so many private wells, multiple municipal water sources and our local municipal water reservoir.
- 2) Stating that seismic events are extremely rare in Clearfield County is an incorrect assumption that needs further study. Studies need to be specific to our area before it is assumed that "seismic events are extremely rare."
- 3) Monitoring pressure is insufficient to protect residents from an injection well failure since damage to water sources will have happened before shutdown procedures could be taken.
- 4) Man induced seismic concerns have already affected homes when a natural gas line blew up a home in the past. Blasting for coal in our township has cracked foundations of homes in the past and coal mining continues to operate in Brady township.
- 5) Prior public hearing testimony presented demonstrated residents' concerns of fault lines present in the review area that deeply concern residents of the chances being taken to cause seismic activities. The fault lines that exist cause concern and fluids traveling along the fault to flow towards abandoned deep gas wells and abandoned coal mines through old casings or a syncline is just a way to cause trouble in the future for residents.
- 6) The changes in underground pressures have the potential to affect the faults and cause seismicity concerns. Fluids may lubricate the faults causing seismic activity and possible earthquakes.
- 7) One study shed enough doubt on injection wells and seismic activities to stop this permit (Science Magazine on July 12, 2013 cited William Ellsworth from the Earthquake Science Center, U. S. Geological Survey, Menlo Park, California. Article is here [http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/) ). Other studies and recent happenings in four states cause grave concerns that back up denying this permit.

8) Residents aren't willing to accept the risk of it "might not happen" when they have already seen mistakes happen first hand in our area at another injection well that is located in Bell Township, Clearfield County. **EXCO OPERATED THE IRVIN INJECTION WELL AT A PRESSURE EXCEEDING ITS PERMITTED MAXIMUM INJECTION PRESSURE FOR A THREE MONTH PERIOD IN 2010. EXCO VIOLATED THE TERMS OF ITS UIC PERMIT BY FAILING TO IMMEDIATELY CEASE INJECTION OF BRINE INTO THE IRVIN A-19 BRINE DISPOSAL WELL ("IRVIN WELL") UPON DISCOVERING THAT THE WELL HAD FAILED MECHANICAL INTEGRITY.**

This permit for a proposed disposal injection well in Brady Township should be denied due to the increased risk of earthquakes due to known faults within the Area of Review.

Sincerely,

Amber D. Nolder

3854 Shamokin Trail

Luthersburg, PA 15848



## CITY OF DUBOIS, PENNSYLVANIA

16 W. SCRIBNER AVE. • P.O. BOX 408 • DUBOIS, PENNSYLVANIA 15801

TELEPHONE: (814) 371-2000, Ext. 135  
FAX: (814) 371-1290

September 10, 2013

EPA Regions III  
Ground Water & Enforcement Branch (3WP22)  
Office of Drinking Water & Source Water Protection  
1650 Arch Street  
Philadelphia, PA 19103

RE: PAS2D020BCLE - Brady Township, Clearfield County, PA

The City of DuBois Council, Mayor, and City Manager ask that the permit for a deep injection well in Brady Township be denied for this proposed location.

Clearfield County has a low incident of seismic activity; therefore, our homes, buildings, water towers, infrastructure, etc. are not built with earthquake specifications in mind. Two years ago DuBois residents felt the seismic tremors which started in Youngstown, Ohio. We do not want to imagine what would happen to our aging water and sewer lines, sidewalks and roads should seismic activity happen in our back yard. The assertion that monitoring pressure would protect against failure of an injection well operation is hard to believe considering damage to a water source is likely to have already occurred by the time lapse between a monitor warning of a failure at an injection well operation until the shutdown can be accomplished.

Geological and hydrological surveys commissioned by City Council in 1958 and 2009 show a fault line from Luthersburg area past Rockton/Home Camp area. Our City reservoir and newly dug water wells reside in this vicinity. Our City has been working to provide backup water resources to plan for future area growth needs. This is a costly endeavor to drill additional water wells to supplement our reservoir, but we provide a significant portion of the surrounding areas with water.

The watershed has abandoned gas wells (not City owned) with old deteriorated casings. Undo pressure from injection activity could push injection fluids along the fault lines into abandoned gas wells with the potential to contaminate underground sources of drinking water.

Parts of our City and much of the surrounding area are built atop a catacomb of old coal mines no longer worked. The City and state has spent considerable amounts of taxpayer money to clean-up the mine discharge that polluted Sandy Lick Creek which flows through DuBois. Simply put, geologic and hydrological conditions in this area make the proposed site an egregiously poor one for such a well.

We support the request for a public hearing on this specific permit issue since so much was learned at the last EPA public hearing from our community residents. Often residents need the opportunity to speak out on these issues and we know many didn't have the chance at the last public hearing due to the issue of starting late since the recorder for the meeting had to arrive an hour after the originally advertised start time.

The City of DuBois recognizes and welcomes the economic impact that the gas industry offers. We simply object to introducing injection wells and similar activities into our residential area at the expense of our health and safety.

Sincerely,

DUBOIS CITY COUNCIL

Mayor Gary D. Gilbert  
Councilman James Aughenbaugh  
Councilwoman Diane Bernardo  
Councilman Randy Schmidt  
Councilman Edward Walsh  
City Manager John Suplizio

**Platt, Steve**

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**From:** dalensherry@zitomedia.net  
**Sent:** Wednesday, September 11, 2013 12:03 PM  
**To:** Platt, Steve  
**Subject:** Fracking Comment Brady Township

Dear EPA:

Re: PAS2DO20Bcle - Brady Township, Clearfield County, PA

Comments of the EPA Public Comment period for seismicity concerns for the Brady Township Underground Injection Control Permit and concerns about seismicity and resulting ground water resource contamination.

Studies of injection wells need to be done prior to location in residential areas and water sources in local reservoir. Seismic events are rare, however this is prior to injection events. Seismic activity happened a year ago.

Monitoring pressure won't protect residents from injection well failure, since water sources will already have been compromised by then. Fluids may lubricate faults causing activity. Residents aren't willing to accept the risk of what "might happen" when mistakes have already happened.

Dale and Sheryl Adams



## Platt, Steve

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**From:** nanmoore13@verizon.net  
**Sent:** Wednesday, September 11, 2013 11:30 AM  
**To:** Platt, Steve  
**Subject:** Injection Wells in relation to seismic events

I wrote a letter as chairman of the planning Commission of the City of DuBois. Since then It has been brought to my attention, and I would hope to yours on August 27 that there were reported 1000 plus minor earthquakes in Greenbrier, Arkansas, in 2010 and 2011 resulting in damage to houses.

The Arkansas Geologic survey scientists said quakes were likely triggered by waste water injection wells.

The first court case on this issue is scheduled for hearing in March of 2014.

Arkansas Geological Survey scientists said quakes were likely triggered by waste water injection wells. This farming town experienced 1000 minor quakes. The largest was 4.7. Five lawsuits have been filed against Cheseapeak who owned the wells in 2010 and Billiton who purchased Cheseapeak's assets in 2011.

The owners of a third well was dropped from the suit because they went bankrupt.

The University of Memphis and Arkansas Geological Survey scientists said the quakes were likely triggered by disposal injection wells. The Arkansas Oil and Gas Commissions ordered several wells in the area shut down and the earthquakes subsided.

Please review the information on this issue in Arkansas as well as the events in Timpson, Texas.

Residents of Timpson, Texas are concerned about a series of earthquakes since 2011. Brime created by natural gas production

has been linked to earth quakes like the one that shook the residents Sept 2 which was a 4.5 second event of 4.1 followed in two hours by a 4.8.

The last event in this area was 30 years ago and 20 miles north. It was a 3 quake according to geological survey geophysicist Robert Williams. Please consider the research that is out there.

There is more every day.

The US EPA is expected to issue a major report on fracking and drinking water. Hopefully it will include municipal systems such as the city of DuBois system which includes a reservoir, wells and a water tower which is located on Highland Street Extension. which is the proposed site location of the injection well. Is this the same study referred to as the EPA preliminary Draft distributed to technical experts who had contributed to the report?

Our homes are precious but our water is even more so.

Nancy E. Moore