

Comment 1

From: [DeYoung, David \(DEQ\)](#)
To: [Richard Layman](#)
Subject: RE: Updated Draft Geothermal Legislation
Date: Tuesday, May 01, 2018 10:02:36 AM

Hello Richard,

Although the proposed statute does not require state or local officials to permit or inspect closed-loop ground source heat exchange systems, training individuals to perform proper inspections is important to everyone involved. As this process moves forward, DEQ plans to work with stakeholders on implementing a plan to educate the industry, regulators, and the general public regarding closed-loop ground source heat exchange systems. I look forward to getting your input regarding proper education in the future.

From: Richard Layman <aquaman.layman@gmail.com>

Sent: Monday, April 30, 2018 8:35 PM

To: DeYoung, David (DEQ) <DEYOUNGD@michigan.gov>

Cc: Allan Skouby <askouby@geoproinc.com>; Chad Yordy <Chad.Yordy@halliburton.com>; DeBruyn, Dana (DEQ) <DeBruynD@michigan.gov>; Ed Birkmeier Well Driling <ebwd@centurytel.net>; Gamble, James (DEQ) <GambleJ1@michigan.gov>; Gardner, Kathleen (DEQ) <GardnerK3@michigan.gov>; Hansell, Mark (hansellm@oakgov.com) <hansellm@oakgov.com>; Howes, Sarah (DEQ) <HowesS1@michigan.gov>; Jason.Buck@kentcountymi.gov; Kalakay, Kevin (LARA) <kalakay@michigan.gov>; Kalnins, Elizabeth (DEQ) <KalninsE@michigan.gov>; Ladouceur, Anita (DEQ) <LADOUCEURA@michigan.gov>; Lambert, Keith (LARA) <lambertk@michigan.gov>; Lucus D. Pols (ldpols@kalcounty.com) <ldpols@kalcounty.com>; Madziar, Joseph (LARA) <madziarj@michigan.gov>; Matt Bolang <mbolang@co.livingston.mi.us>; Mike Dyer (mdyer@dyerwell.com) <mdyer@dyerwell.com>; Novak, Terri (LARA) <NovakT4@michigan.gov>; Oswald, Eric (DEQ) <OswaldE1@michigan.gov>; Sara Simmonds (Sara.Simmonds@kentcountymi.gov) <Sara.Simmonds@kentcountymi.gov>; Steve Buer (steve@buerwelldrilling.com) <steve@buerwelldrilling.com>; Thomas, Chuck (DEQ) <THOMASC3@michigan.gov>; Tim Clark (tim@cribley.com) <tim@cribley.com>; Tip MacGuire <tmacguire@tchd.us>; Vern L. Johnson <vljohn@kalcounty.com>; Wygant, Adam (DEQ) <WygantA@michigan.gov>; adaldine@comcast.net; alan.waller@waterfurnace.com; annie@terracaloric.com; athayer@meca.coop; bnzwelldrilling@centurytel.net; brassmar4939@yahoo.com; bud2480@hotmail.com; bward@mirealtor.com; byordy@gefco.com; claude.bergeron@lafarge.com; cmaher@mpmca.org; cremund@geoproinc.com; ddimoff@frankrewold.com; dpergel@wmsdist.com; drautzto@oakgov.com; dschulenberg@ngwa.org; dsimmons3872@charter.net; ekleiman@kleimanwater.com; erin.portman@okstate.edu; gjandernoa@valleyfarmssupply.com; greg@mccartywelldrilling.com; jlwelser@ymail.com; kenf@kfenginc.com; kliner@anr.msu.edu; kwdinc@aol.com; laura.pobanz@macombgov.org; lawrence@geonetzero.com; lee@hbaofmichigan.com; marcus@geothermallooppros.com; mfrederick@frederickgroup.net; michael.kleespies@mineralstech.com; milantech@milansupply.com; mswain@malph.org; nmurphy@house.mi.gov; rons@gmb.com; sandjheating@msn.com; scott@mwgeothermal.com; skrause@wyoben.com; steved@sesnet.com; trentd@gmb.com; webbwelldrilling@centurytel.net;

wpearson@pearsondrilling.biz

Subject: Re: Updated Draft Geothermal Legislation

Received, thank you. I would just like to know how you are going to educate state and local inspectors to do these inspections.

I think a plan has to be formed and implemented to insure that we as a industry have educated informed inspectors.

On Mon, Apr 30, 2018 at 12:09 PM DeYoung, David (DEQ) <DEYOUNGD@michigan.gov> wrote:

Hi All,

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http://www.michigan.gov/deq/0,4561,7-135-3313_3675_3694-304596--,00.html

Please pass this email along to others with interest in closed-loop ground source heat exchange systems. Thank you.

David DeYoung
Source Water Unit
Drinking Water & Municipal Assistance Division
Department of Environmental Quality
(517) 284-6526 (Phone)
(517) 241-1328 (Fax)

Comment 2

From: [DeYoung, David \(DEQ\)](#)
To: ["Revankar, Roshan"](#)
Cc: [Portman, Erin](#)
Subject: RE: Updated Draft Geothermal Legislation
Date: Wednesday, May 02, 2018 7:46:46 AM

Thank you, I will make the change.

From: Revankar, Roshan <roshan.revankar@okstate.edu>
Sent: Tuesday, May 01, 2018 4:55 PM
To: DeYoung, David (DEQ) <DEYOUNGD@michigan.gov>
Cc: Portman, Erin <erin.portman@okstate.edu>
Subject: RE: Updated Draft Geothermal Legislation

David,

There is an error in section 12808.

(b) Final heat transfer fluid solutions shall not be flammable. The heat-transfer fluid flash point shall be not less than 50°F (28°C)

The above sentence does not make much sense if the rest of the edits as suggested by IGSHPA is not included. This sentence should read

The heat-transfer fluid flash point shall be not less than 50F (28C) above the maximum system operating temperature.

The 50F difference is from the IMC code that was adopted by IGSHPA and now the UMC code in its next edition.

Thanks,
Roshan

From: Portman, Erin
Sent: Monday, April 30, 2018 2:52 PM
To: Revankar, Roshan <roshan.revankar@okstate.edu>
Subject: FW: Updated Draft Geothermal Legislation

Hey!

In case you are not on this list from Michigan DEQ, please see below. I'm reviewing this now as well.

Erin

From: DeYoung, David (DEQ) [<mailto:DEYOUNGD@michigan.gov>]
Sent: Monday, April 30, 2018 8:22 AM
To: DeBruyn, Dana (DEQ); Gamble, James (DEQ); Gardner, Kathleen (DEQ); Howes, Sarah (DEQ); Kalakay, Kevin (LARA); Kalnins, Elizabeth (DEQ); Ladouceur, Anita (DEQ); Lambert, Keith (LARA); Madziar, Joseph (LARA); Novak, Terri (LARA); Oswald, Eric (DEQ); Thomas, Chuck (DEQ); Wygant,

Adam (DEQ); Jason.Buck@kentcountymi.gov; Matt Bolang; drautzto@oakgov.com; Hansell, Mark (hansellm@oakgov.com); Vern L. Johnson; Tip MacGuire; laura.pobanz@macombgov.org; Lucus D. Pols (ldpols@kalcounty.com); Sara Simmonds (Sara.Simmonds@kentcountymi.gov); marcus@geothermallooppros.com; Ed Birkmeier Well Driling; Steve Buer (steve@buerwelldrilling.com); lawrence@geonetzzero.com; Tim Clark (tim@cribley.com); adaldine@comcast.net; trentd@gmb.com; steved@sesnet.com; ddimoff@frankrewold.com; Mike Dyer (mdyer@dyerwell.com); kenf@kfenginc.com; mfrederick@frederickgroup.net; 'gjandernoa@valleyfarmssupply.com'; 'kwdinc@aol.com'; michael.kleespies@mineralstech.com; ekleiman@kleimanwater.com; 'kliner@anr.msu.edu'; skrause@wyoben.com; aquaman.layman@gmail.com; cmaher@mpmca.org; 'brassmar4939@yahoo.com'; 'greg@mccartywelldrilling.com'; 'milantech@milansupply.com'; annie@terracaloric.com; lawrence@geonetzzero.com; nmurphy@house.mi.gov; dpergel@wmsdist.com; 'wpearson@pearsondrilling.biz'; Portman, Erin; cremund@geoproinc.com; sandjheating@msn.com; dschulenberg@ngwa.org; 'bud2480@hotmail.com'; lee@hbaofmichigan.com; 'dsimmons3872@charter.net'; 'scott@mwgeothermal.com'; Allan Skouby; rons@gmb.com; mswain@malph.org; athayer@meca.coop; alan.waller@waterfurnace.com; bward@mirealtor.com; 'webbwelldrilling@centurytel.net'; 'jlwelser@ymail.com'; byordy@gefco.com; Chad Yordy; bnzwelldrilling@centurytel.net; claude.bergeron@lafarge.com

Subject: Updated Draft Geothermal Legislation

Hi All,

The previous version of the draft geothermal legislation was modified to reflect comments provided by stakeholders. The latest version is located at our website (see link below):

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Please pass this email along to others with interest in closed-loop ground source heat exchange systems. Thank you.

David DeYoung
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Department of Environmental Quality
(517) 284-6526 (Phone)
(517) 241-1328 (Fax)

Comment 3

From: [DeYoung, David \(DEQ\)](#)
To: [Wygant, Adam \(DEQ\)](#)
Cc: [DeBruyn, Dana \(DEQ\)](#)
Subject: RE: Updated Draft Geothermal Legislation
Date: Wednesday, May 02, 2018 8:25:14 AM

Hi Adam,

Our website states that we would like comments and questions by June 1. If this timeframe is too short, let me know and we can discuss further. I have addressed the majority of the comments from yesterday with responses to each individual. I will post these items to our Geothermal Heat Pumps website soon. I do not believe that the comments received to this point would require another Stakeholder Meeting.

From: Wygant, Adam (DEQ)
Sent: Wednesday, May 02, 2018 8:14 AM
To: DeYoung, David (DEQ) <DEYOUNGD@michigan.gov>
Cc: DeBruyn, Dana (DEQ) <DebruynD@michigan.gov>
Subject: RE: Updated Draft Geothermal Legislation

David,

Thank you for the updated draft. As I previously mentioned we have some concerns and ideas we would like to pass along related to stray gas, H2S, and well control.

Is there a deadline or a next meeting of the stakeholder group? It seems from the flurry of responses you got, another stakeholder meeting may be in order. Regardless I wondered how much time I have to get you some timely comments.

Adam

Adam Wygant PTSS Manager Oil, Gas, and Minerals Division DEQ
517-897-4828

From: DeYoung, David (DEQ)
Sent: Monday, April 30, 2018 9:22 AM
To: DeBruyn, Dana (DEQ) <DebruynD@michigan.gov>; Gamble, James (DEQ) <GambleJ1@michigan.gov>; Gardner, Kathleen (DEQ) <GardnerK3@michigan.gov>; Howes, Sarah (DEQ) <HowesS1@michigan.gov>; Kalakay, Kevin (LARA) <kalakayk@michigan.gov>; Kalnins, Elizabeth (DEQ) <KalninsE@michigan.gov>; Ladouceur, Anita (DEQ) <LADOUCEURA@michigan.gov>; Lambert, Keith (LARA) <lambertk@michigan.gov>; Madziar, Joseph (LARA) <madziarj@michigan.gov>; Novak, Terri (LARA) <NovakT4@michigan.gov>; Oswald, Eric (DEQ) <OswaldE1@michigan.gov>; Thomas, Chuck (DEQ) <THOMASC3@michigan.gov>; Wygant, Adam (DEQ) <WygantA@michigan.gov>; Jason.Buck@kentcountymi.gov; Matt Bolang <mbolang@co.livingston.mi.us>; drautzto@oakgov.com; Hansell, Mark (hansellm@oakgov.com) <hansellm@oakgov.com>; Vern L. Johnson <vljohn@kalcounty.com>; Tip MacGuire

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<webbwelldrilling@centurytel.net>; 'jlwelser@ymail.com' <jlwelser@ymail.com>;
byordy@gefco.com; Chad Yordy <Chad.Yordy@halliburton.com>; bnzwelldrilling@centurytel.net;
claude.bergeron@lafarge.com

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From: [DeYoung, David \(DEQ\)](#)
To: ["Steve DiBerardine"](#)
Subject: RE: Updated Draft Geothermal Legislation
Date: Wednesday, May 02, 2018 8:58:09 AM

Hi Steve,

The proposed statute does not require state or local officials to permit or inspect closed-loop ground source heat exchange systems, however, training individuals to perform proper inspections is important to everyone involved. The health department that currently issue permits for closed-loop ground source heat exchange systems run this program much like their water well program with staff conducting the inspections. Requiring individual health departments to hire IGSHPA Certified Geothermal Inspections or send staff to the 2-day out-of-state workshop at a cost of \$940 goes beyond the scope of the legislation.

As this process moves forward, DEQ plans to work with stakeholders on implementing a plan to educate the industry, regulators, and the general public regarding closed-loop ground source heat exchange systems. I look forward to your continued involvement in this process.

From: Steve DiBerardine <steved@sesnet.com>
Sent: Tuesday, May 01, 2018 1:29 PM
To: Richard Layman <aquaman.layman@gmail.com>; DeYoung, David (DEQ) <DEYOUNGD@michigan.gov>; Brian Haase <bhaase@sesnet.com>; Kevin Bouchey <kbouchey@sesnet.com>
Cc: Allan Skouby <askouby@geoproinc.com>; Chad Yordy <Chad.Yordy@halliburton.com>; DeBruyn, Dana (DEQ) <DeBruynD@michigan.gov>; Ed Birkmeier Well Driling <ebwd@centurytel.net>; Gamble, James (DEQ) <GambleJ1@michigan.gov>; Gardner, Kathleen (DEQ) <GardnerK3@michigan.gov>; Hansell, Mark (hansellm@oakgov.com) <hansellm@oakgov.com>; Howes, Sarah (DEQ) <HowesS1@michigan.gov>; Jason.Buck@kentcountymi.gov; Kalakay, Kevin (LARA) <kalakay@michigan.gov>; Kalnins, Elizabeth (DEQ) <KalninsE@michigan.gov>; Ladouceur, Anita (DEQ) <LADOUCEURA@michigan.gov>; Lambert, Keith (LARA) <lambertk@michigan.gov>; Lucus D. Pols (ldpols@kalcounty.com) <ldpols@kalcounty.com>; Madziar, Joseph (LARA) <madziarj@michigan.gov>; Matt Bolang <mbolang@co.livingston.mi.us>; Mike Dyer (mdyer@dyerwell.com) <mdyer@dyerwell.com>; Novak, Terri (LARA) <NovakT4@michigan.gov>; Oswald, Eric (DEQ) <OswaldE1@michigan.gov>; Sara Simmonds (Sara.Simmonds@kentcountymi.gov) <Sara.Simmonds@kentcountymi.gov>; Steve Buer (steve@buerwelldrilling.com) <steve@buerwelldrilling.com>; Thomas, Chuck (DEQ) <THOMASC3@michigan.gov>; Tim Clark (tim@cribley.com) <tim@cribley.com>; Tip MacGuire <tmacguire@tchd.us>; Vern L. Johnson <vljohn@kalcounty.com>; Wygant, Adam (DEQ) <WygantA@michigan.gov>; adaldine@comcast.net; alan.waller@waterfurnace.com; annie@terracaloric.com; athayer@meca.coop; bnzwelldrilling@centurytel.net; brassmar4939@yahoo.com; bud2480@hotmail.com; bward@mirealtor.com; byordy@gefco.com; claude.bergeron@lafarge.com; cmaher@mpmca.org; cremund@geoproinc.com; ddimoff@frankewold.com; dpergel@wmsdist.com; drautzto@oakgov.com;

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wpearson@pearsondrilling.biz

Subject: RE: Updated Draft Geothermal Legislation

While I'm not sure email is the correct forum to discuss this, IGSHPA does have a Certified Geothermal Inspector program.

Here's the directory for locating Certified Geothermal Inspectors: <https://igshpa.org/business-directory>

To me it would make sense to have the AHJ outsource geothermal inspections to those who have demonstrated the skills, experience, and resources required to do so. I'm not sure it makes sense for every municipality to develop this expertise considering the relatively few number of geothermal projects in each municipality in a given year.

Steve DiBerardine, PE, CGD
President
Strategic Energy Solutions, Inc.
4000 West Eleven Mile Road
Berkley, MI 48072
Office: 248-399-1900

From: Richard Layman [<mailto:aquaman.layman@gmail.com>]

Sent: Monday, April 30, 2018 8:35 PM

To: DeYoung, David (DEQ) <DEYOUNGD@michigan.gov>

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