

**BEFORE**  
**THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Duke )  
Energy Ohio, Inc., for a Certificate of )  
Environmental Compatibility and Public ) Case No. 16-253-GA-BTX  
Need for the C314V Central Corridor )  
Pipeline Extension Project. )

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**DIRECT TESTIMONY OF**  
**JULIANNE SCHUCKER**  
**ON BEHALF OF**  
**DUKE ENERGY OHIO, INC.**

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March 26, 2019

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**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Julianne Schucker and my business address is 1880 Waycross Road,  
3 Cincinnati, Ohio 45240.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Jacobs Engineering Group as Senior Project Manager, Global  
6 Environmental Solutions. Jacobs Engineering Group acquired CH2M HILL  
7 effective January 1, 2018.

8 **Q. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL  
9 BACKGROUND AND PROFESSIONAL EXPERIENCE.**

10 A. I have received a Bachelor of Science Degree in Geology from Cleveland State  
11 University in 1987 and Master of Science Degree in Geological Sciences from The  
12 Ohio State University in 1990. I also have several professional licenses and  
13 certifications including: Ohio EPA Voluntary Action Program Certified  
14 Professional No. 258; Professional Geologist: Kentucky No. 2221, Pennsylvania  
15 No. PG001947G, and New York No. 000432-1; Certified Professional Geologist:  
16 Indiana No. 1572.

17 I started my career working with Ohio Department of Natural Resources in  
18 the Division of Water Resources from April 1990 to July 1991. I then started in  
19 consulting working as geologist and a project manager with Roy F. Weston, Inc.  
20 from July 1991 to March 2000 and CH2M HILL from March 2000 to January 2018.  
21 I am currently a senior project manager with Jacobs Engineering, Global  
22 Environmental Services from January 2018 to present.

1 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS SENIOR**  
2 **PROJECT MANAGER, GLOBAL ENVIRONMENTAL SOLUTIONS.**

3 A. I manage multiple medium to large size projects for a diverse array of clients that  
4 involve a wide range of industrial processes, involving site characterization,  
5 remediation, redevelopment, regulatory application and negotiation, public  
6 interaction, and closure strategy development.

7 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE OHIO POWER**  
8 **SITING BOARD?**

9 A. No.

10 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

11 A. I am testifying on behalf of Duke Energy Ohio, Inc (Duke Energy Ohio or  
12 Company).

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
14 **PROCEEDING?**

15 A. My testimony will explain the research I performed with regard to the Pristine, Inc.,  
16 Superfund site in Reading, Ohio (Pristine Site), and will set forth my conclusions  
17 regarding the potential siting of the Central Corridor Pipeline (CCP) just east of the  
18 Pristine site.

## **II. BACKGROUND OF THE PRISTINE SITE**

19 **Q. WHERE IS THE PRISTINE SITE LOCATED?**

20 A. The Pristine Site is located at address 410 Cavett Avenue, Reading, OH 45215  
21 with physical location between and adjacent to the east side of the Former  
22 Cincinnati Drum Service facility and on western side of railroad tracks.

1 **Q. WHAT BUSINESS WAS OPERATED BY PRISTINE, INC., AT THE**  
2 **PRISTINE SITE?**

3 A. The Pristine Site is comprised of approximately three acres of land that is part of  
4 the Cincinnati Drum Service operation who cleaned and recycled steel drums. Prior  
5 to 1974, the site had been used for the manufacturing of sulfuric acid and fertilizer.

6 **Q. WHAT WERE THE IMPACTS OF THAT BUSINESS ON THE PRISTINE**  
7 **SITE?**

8 A. The business operations were shut down in 1981 because of complaints about spills,  
9 large inventory of waste onsite, and permit violations. Following the shutdown,  
10 several activities occurred: hazardous drummed and tank wastes were removed  
11 under a consent order; contaminated soil was removed from the site under an  
12 Administrative Order on Consent in 1984 to address immediate hazardous site  
13 conditions; and subsurface investigations occurred to identify impacts to the site.  
14 These investigations showed on-site impacts to subsurface soils and groundwater  
15 from facility operations and such impacts were found to pose a human health risk.

### **III. GOVERNMENT-MANDATED REMEDIATION**

16 **Q. PLEASE EXPLAIN THE BASIS FOR THE FEDERAL GOVERNMENT'S**  
17 **INVOLVEMENT IN THE REMEDIATION OF THE PRISTINE SITE.**

18 A. The United States Environmental Protection Agency (USEPA) is the lead agency  
19 at the site for Comprehensive Environmental Response, Compensation, and  
20 Liability Act (CERCLA) activities. The Ohio Environmental Protection agency  
21 (Ohio EPA) is the support agency. In 1983, the site was added to the National  
22 Priorities List and in 1984, USEPA initiated a remedial action and feasibility study  
23 (RI/FS) to define the nature and extent of impacts on- and off-site. A record of

1 decision (ROD) and an amendment were prepared March 1990 documenting the  
2 selected remedy for the site; and in 1989, EPA and 111 responsible parties (many  
3 are part of the Pristine Trust) signed a remedial action/remedial design consent  
4 decree. The Pristine Trust implemented the selected remediation of the site.

5 **Q. WHAT RECORDS ARE AVAILABLE TO DOCUMENT THE**  
6 **REMEDICATION AT THE PRISTINE SITE?**

7 A. The USEPA public information repository for the Pristine site technical documents  
8 are available at the Reading Public Library located at 8740 Reading Road. In  
9 addition, Ohio EPA has publicly available files on their Ohio EPA *eDocument*  
10 *Search* website. Technical documents include consent decrees, investigation  
11 reports, analytical data, and five-year review reports.

12 **Q. WERE ANY OTHER METHODS USED TO COLLECT DATA OR**  
13 **RECORDS?**

14 A. Yes. I contacted Scott Glumm at Ohio EPA Southwest District Office who directed  
15 me to the Ohio EPA *eDocument Search* website. I also reviewed the USEPA  
16 website for Pristine Inc. Superfund site for other information.

17 **Q. WHAT REMEDIATION RECORDS DID YOU REVIEW?**

18 A. As part the research I performed for the Pristine Site I reviewed all publicly  
19 available information located at the Reading Public Library, as well as other  
20 relevant files from the Ohio EPA *eDocument Search* web site. The information I  
21 reviewed included consent orders, remedial investigation reports, ROD, post-ROD  
22 sampling reports, and Five-Year Review reports.

1 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS, WHAT WAS**  
2 **THE STATE OF THE PRISTINE SITE AT THE START OF**  
3 **REMEDICATION?**

4 A. According to the records I reviewed, at the start of ROD implementation, surface  
5 soils/sediment, subsurface soils, and groundwater were contaminated posing a risk  
6 to human health. The risk pathways included direct contact and incidental ingestion  
7 of site soils, and leaching of contaminants from site soil to groundwater through  
8 ingestion of groundwater. The ROD and its amendment identified cleanup  
9 standards to mitigate these risks

10 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS, WHAT STEPS**  
11 **WERE TAKEN TO REMEDIATE THE PRISTINE SITE, AND OVER**  
12 **WHAT TIME PERIOD?**

13 A. Based on the investigations performed, a site conceptual understanding indicates  
14 risks to human health and environment exist on-site and off-site to the  
15 south/southwest in the direction of groundwater flow. A summary of the site  
16 conceptual understanding includes: on-site surface and subsurface soils consist of  
17 primarily of fill material (up to approximately 10-feet below ground surface) which  
18 was contaminated from onsite activities; contaminated upper aquifer consisting of  
19 discontinuous lateral and horizontal coarse-grained lenses within finer-grained  
20 deposits with the shallowest depth to groundwater is approximately 5 to 12-feet  
21 deep; and a regional lower aquifer present at depths which are at or greater than 75-  
22 feet below ground surface. Soil and groundwater samples collected had

1 concentrations in exceedance of USEPA standards which resulted in need to  
2 eliminate risk by identifying remedial options.

3 According to the records I reviewed, there were five phases of remedy  
4 implementation: 1) demolition of onsite structures completed in January 1992; 2)  
5 soil thermal treatment using thermal desorption technology performed in 1993 and  
6 1994 (treated 13,000 tons of soil which met clean up criteria and placed back on  
7 site); 3) constructed and start-up of in-situ soil vapor extraction (ISVE) and cap  
8 located across the site of site from 1994 to 1998 to address shallow groundwater  
9 conditions and soil vapor extraction of site soils under the cap and along western  
10 side of site; 4) constructed and start-up in 1997 a 150 gallon per minute (gpm) pump  
11 and treat system with air stripper to treat extracted groundwater from on-site  
12 shallow aquifer extraction well EW1, treat groundwater from the ISVE shallow  
13 groundwater system (5 gpm) and treat groundwater from off-site lower aquifer  
14 extraction wells EW2 (35 gpm) and EW3 (80 gpm). A second air stripper was added  
15 in 1998 to support removal of volatile organic compounds (VOCs); and 5) the pump  
16 and treatment system was expanded offsite with a 300 gpm system started in  
17 October 1998 to treat groundwater downgradient in lower aquifer south, off-site  
18 further. In March 2002, the overall pumping rate for off-site extraction wells was  
19 reduced from 450 to 375 gpm because the system was drawing in other groundwater  
20 plumes in the downgradient area. In March 2006, the pumping rate was reduced to  
21 150 gpm because the system was continuing to draw other groundwater plumes in  
22 the area. In November 2010, USEPA approved Pristine Trust's monitored natural  
23 attenuation (MNA) pilot program to deactivate all off-site lower aquifer extraction



1 wells and treating only the onsite groundwater pumped at an unchanged rate of 50  
2 gpm. In 2017, a letter documents continued discussion between Pristine Trust,  
3 USEPA, and Ohio EPA in making MNA part of the final remedy for off-site  
4 groundwater remediation in the lower aquifer.

**IV. CURRENT STATE OF THE PRISTINE SITE**

5 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS, WHAT IS THE**  
6 **CURRENT STATE OF THE PRISTINE SITE?**

7 A. Based on most recent Five-Year Review Report (USEPA, August 2016), only  
8 remedial systems in operation are: 1) MNA pilot program initiated for off-site lower  
9 aquifer south of the site; 2) on-site ISVE continues operating in shallow aquifer  
10 with pumping rate of 50 gpm; and 3) USEPA approved the human health risk  
11 assessment for on-site soil which, when taken into account the institutional  
12 controls, found the risk to soil exposure poses no threat and concluded ISVE  
13 treatment achieved soil cleanup standards.

14 **Q. YOU PREVIOUSLY MENTIONED AN EXTRACTION WELL SYSTEM**  
15 **THAT WAS USED IN THE REMEDIATION PROCESS. DOES THAT**  
16 **SYSTEM STILL EXIST AND IS IT CURRENTLY OPERATIONAL?**

17 A. Recent records indicate ISVE system on site is still operating but off-site pump and  
18 treat system extraction wells are not in operation in order to allow the MNA pilot  
19 program to operate.

1 **Q. WHERE ARE THE EXTRACTION WELLS AND ASSOCIATED PIPING**  
2 **IN RELATION TO THE PRISTINE SITE AND THE PROPOSED**  
3 **ALTERNATE ROUTE FOR CCP?**

4 A. Based on my understanding of the current proposed route for the pipeline, the  
5 location of the ISVE extraction well is located on the south side of the Pristine  
6 property approximately 110 feet west of the eastern site property line.

7 **Q. DO YOU HAVE AN OPINION ABOUT WHETHER THE**  
8 **CONSTRUCTION OR OPERATION OF THE PIPELINE IN THE**  
9 **GENERAL VICINITY OF THE EXTRACTION WELLS AND**  
10 **ASSOCIATED PIPING WILL HAVE ANY IMPACT ON THE**  
11 **REMEDICATION?**

12 A. Yes.

13 **Q. WHAT IS THAT OPINION?**

14 A. The construction or operation of the pipeline is located outside Pristine site  
15 boundaries to the east. Based on my records review, characterization of this area  
16 indicated that there were no impacts to soils or groundwater from the Pristine site  
17 and off-site groundwater impacts would be constrained by the direction of  
18 groundwater flow which is to the south/southwest of the site, away from the  
19 proposed pipeline route.

1 **Q. DID DUKE ENERGY OHIO PERFORM, OR CAUSE TO BE**  
2 **PERFORMED, ANY SOIL TESTING NEAR THE PRISTINE SITE, AS**  
3 **PART OF ITS INVESTIGATION CONCERNING THE CCP?**

4 A. It is my understanding that Burns & McDonnell performed tests near the Pristine  
5 Site, on behalf of Duke Energy Ohio. That testing will be discussed in detail by  
6 Duke Energy Ohio witness Daniel Earhart.

7 **Q. HAVE YOU REVIEWED THE RESULTS OF THE TESTING BY BURNS**  
8 **& McDONNELL?**

9 A. Yes.

10 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS AND OF THE**  
11 **TEST RESULTS OBTAINED BY BURNS & McDONNELL, DO YOU HAVE**  
12 **AN OPINION ABOUT THE DIRECTIONAL NATURE AND DEPTH OF**  
13 **ANY IMPACTS FROM THE PRISTINE SITE?**

14 A. Yes.

15 **Q. WHAT IS THAT OPINION?**

16 A. Soil impacts did not extend east of the site boundary towards the railroad tracks and  
17 beyond based on historical data and test results from Burns & McDonnell sampling  
18 event. Groundwater impacts do not extend east across the site boundary because  
19 on-site contamination had migrated away from the proposed pipeline route  
20 horizontally and vertically from the shallow to lower aquifer in the direction of  
21 groundwater gradient to the south/southwest.

1 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS AND OF THE**  
2 **TEST RESULTS OBTAINED BY BURNS & McDONNELL, DO YOU HAVE**  
3 **AN OPINION ABOUT WHETHER THE CONSTRUCTION OF CCP IN**  
4 **THE LOCATION PROPOSED FOR THE ALTERNATE ROUTE,**  
5 **APPROXIMATELY 100 FEET EAST OF THE PRISTINE SITE, WOULD**  
6 **HAVE ANY IMPACT ON THE REMEDIATION AT THE PRISTINE SITE?**

7 A. Yes.

8 **Q. WHAT IS THAT OPINION?**

9 A. In my professional opinion, the construction of the CCP in the proposed location  
10 for the alternate route would not have an impact to the remediation at the Pristine  
11 site because construction is located outside the Pristine site boundary, is outside of  
12 the institutional controls (ICs) and environmental covenants (ECs) in place and that  
13 impacted groundwater is flowing away from the proposed pipeline route.

14 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS AND OF THE**  
15 **TEST RESULTS OBTAINED BY BURNS & McDONNELL, DO YOU HAVE**  
16 **AN OPINION ABOUT WHETHER THE CONSTRUCTION OF CCP IN**  
17 **THE LOCATION PROPOSED FOR THE ALTERNATE ROUTE,**  
18 **APPROXIMATELY 100 FEET EAST OF THE PRISTINE SITE, WOULD**  
19 **RESULT IN ANY INCREASED RISK OF EXPOSURE FOR THE**  
20 **GENERAL PUBLIC?**

21 A. Yes.

1 **Q. WHAT IS THAT OPINION?**

2 A. In my professional opinion, there is no risk of exposure to the general public in the  
3 area of the proposed location of the CCP, because the records indicate no soil or  
4 shallow groundwater contamination migrated east across Pristine Site boundary to  
5 the area of the proposed location of the CCP and the depth of contamination south  
6 of Pristine is present in the lower aquifer at depths of 25 feet below ground surface  
7 or greater which is at depths greater than proposed depth of the pipeline.

8 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS AND OF THE**  
9 **TEST RESULTS OBTAINED BY BURNS & McDONNELL, DO YOU HAVE**  
10 **AN OPINION ABOUT WHETHER THE CONSTRUCTION OF CCP IN**  
11 **THE LOCATION PROPOSED FOR THE ALTERNATE ROUTE,**  
12 **APPROXIMATELY 100 FEET EAST OF THE PRISTINE SITE, WOULD**  
13 **RESULT IN ANY INCREASED RISK OF DAMAGE TO THE PIPELINE?**

14 A. Yes.

15 **Q. WHAT IS THAT OPINION?**

16 A. In my professional opinion is that there is no risk of damage to the pipeline that  
17 would result from Pristine Site remediation activities because records indicate no  
18 contamination migrated east across Pristine Site boundary in the area of the  
19 proposed location of the CCP and the depth of contamination south of Pristine is  
20 present in the lower aquifer at depths of 25 feet below ground surface or greater  
21 which is at depths greater than proposed depth of the pipeline.

1 **Q. BASED ON YOUR REVIEW OF AVAILABLE RECORDS AND OF THE**  
2 **TEST RESULTS OBTAINED BY BURNS & McDONNELL, DO YOU HAVE**  
3 **AN OPINION ABOUT WHETHER THE CONSTRUCTION OF CCP IN**  
4 **THE LOCATION PROPOSED FOR THE ALTERNATE ROUTE,**  
5 **APPROXIMATELY 100 FEET EAST OF THE PRISTINE SITE, WOULD**  
6 **RESULT IN ANY INCREASED RISK TO THE WORKERS**  
7 **CONSTRUCTING THE PIPELINE?**

8 A. Yes.

9 **Q. WHAT IS THAT OPINION?**

10 A. Based on the results I performed of the Burns & McDonnell test results and the  
11 records review, in my professional opinion, there is no risk of exposure to  
12 construction workers constructing the CCP. The information I reviewed indicated  
13 that no contamination migrated east across from the Pristine Site boundary in the  
14 area of the proposed location of the CCP and the test results from the Burns &  
15 McDonnell investigation support that conclusion. In addition, the depth of  
16 contamination south of Pristine is present in the lower aquifer at depths of 25 feet  
17 below ground surface or greater which is at depths greater than proposed depth of  
18 the pipeline.

## V. CONCLUSION

19 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

20 A. Yes.