

OCC EXHIBIT NO. _____

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

)	Case No. 14-375-GA-RDR
)	Case No. 15-452-GA-RDR
In the Matters of the Applications of Duke)	Case No. 16-542-GA-RDR
Energy Ohio, Inc., for Adjustments to Rider)	Case No. 17-596-GA-RDR
MGP Rates.)	Case No. 18-283-GA-RDR
)	Case No. 19-174-GA-RDR
)	Case No. 14-376-GA-ATA
)	Case No. 15-453-GA-ATA
In the Matters of the Applications of Duke)	Case No. 16-543-GA-ATA
Energy Ohio, Inc. for Tariff Approval.)	Case No. 17-597-GA-ATA
)	Case No. 18-284-GA-ATA
)	Case No. 19-175-GA-ATA

(PUBLIC VERSION)

**DIRECT TESTIMONY
OF
JAMES R. CAMPBELL, Ph.D.**

**On Behalf of
The Office of the Ohio Consumers' Counsel
65 E. State Street, 7th Floor
Columbus, Ohio 43215**

October 8, 2019

TABLE OF CONTENTS

	PAGE
I. INTRODUCTION	1
II. PURPOSE OF TESTIMONY	4
III. ANALYSIS OF OHIO EPA'S VAP RULES	6
IV. REVIEW OF RECOMMENDED RECOVERABLE INVESTIGATION AND REMEDIATION EXPENSES	23
V. APPLICATION OF RECOMMENDED REMEDIAL APPROACH TO THE ENTIRETY OF BOTH MGP SITES	29
VI. CONCLUSION	30

ATTACHMENTS

JRC-1	Resume of Dr. James R. Campbell
JRC-2	Estimate of Recoverable Investigation and Soil Remediation Costs Middle Parcel of the East End MGP Site [CONFIDENTIAL]
JRC-3	Estimate of Recoverable Investigation and Soil Remediation Costs Phase 2A Area of the West End MGP Site [CONFIDENTIAL]
JRC-4	Estimate of Recoverable Investigation and Soil Remediation Costs West of West Parcel and Middle Parcel of the East End MGP Site [CONFIDENTIAL]
JRC-5	Estimate of Recoverable Investigation and Soil Remediation Costs Phase 2A Area of the West End MGP Site [CONFIDENTIAL]
JRC-6	Relevant Pages from Haley & Aldrich Invoice dated December 17, 2011 [CONFIDENTIAL]
JRC-7	OCC-POD-01-001(q) CONF Attachment East End [CONFIDENTIAL]
JRC-8	OCC-POD-01-001(s) CONF Attachment East End [CONFIDENTIAL]
JRC-9	OCC-POD-01-001(j) CONF Attachment West End [CONFIDENTIAL]
JRC-10	OCC-POD-01-001(d) CONF Attachment West End [CONFIDENTIAL]

JRC-11 Duke's Response to OCC INT-02-004

JRC-12 OCC-POD-02-004(b) CONF SUPP Attach **[CONFIDENTIAL]**

JRC-13 OCC-POD-01-001(cc) CONF Attachment West End **[CONFIDENTIAL]**

JRC-14 OCC-POD-01-001(p) CONF Attachment East End **[CONFIDENTIAL]**

JRC-15 Duke's Response to OCC INT-02-002

JRC-16 Duke's Response to OCC INT-02-003

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, ADDRESS AND POSITION.

A1. My name is James R. Campbell. My business address is Engineering Management, Inc., 1500 Ardmore Blvd., Suite 502, Pittsburgh, PA 15221. I am the President of Engineering Management, Inc. ("EMI").

Q2. WOULD YOU PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL EXPERIENCE?

A2. I have a Bachelor of Engineering degree in Civil Engineering from Youngstown State University (1978), Master of Science (1980) and Ph.D. (1983) degrees in Civil and Environmental Engineering from Carnegie Mellon University. I am a Professional Engineer and Ohio Voluntary Action Program (VAP) Certified Professional (CP).

My professional work experience and certifications are detailed on my Resume, provided as Attachment JRC-1. I have significant experience addressing environmental issues associated with Manufactured Gas Plant (MGP) and coal tar industry sites. That experience spans more than four decades. I began working with coal conversion wastewaters in 1978 while in graduate school and my graduate studies dealt with treatment of coal conversion wastewaters and understanding the environmental chemistry affecting the fate and transport of coal conversion contaminants. I worked for Koppers Company, Inc. ("Koppers") during the 1980s and early 1990s. Koppers designed and

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 built many of the MGPs in North America. Koppers also previously operated MGPs and,
2 through subsidiaries, sold gas as a utility. In addition, Koppers operated allied coal tar
3 industry facilities such as tar distillation works and wood treating plants. While at
4 Koppers I worked on over 50 MGP/coal tar sites. Experience at those sites includes
5 investigation, design and remediation activities for tar impacted soil, impacted
6 groundwater, and tar as a dense non-aqueous phase liquid (“DNAPL”) – a contaminant
7 commonly found at MGP Sites. I managed all of Koppers’ legacy (non-operating) sites
8 on a program level, including reporting on cash flow forecasting and reserve analysis to
9 senior Koppers management (CEO and COO). I started EMI in 1992 to provide project
10 management and expert services related to environmental liabilities. Over my 36-year
11 career, I have worked on the analysis and/or environmental assessment and cleanup of
12 over 100 sites and have provided expert analysis in approximately 20 Superfund cases, 12
13 of which were MGP Sites. My experience includes working with, and interpreting, many
14 federal and state environmental regulations.

15
16 ***Q3. WHAT ARE YOUR RESPONSIBILITIES AS PRESIDENT OF EMI?***

17 ***A3.*** I am responsible for EMI’s technical and business affairs. I specialize in providing
18 management and negotiation services associated with environmental liabilities as well as
19 expert services for environmental related dispute resolution. Management activities
20 include coordination and oversight of investigation, design, construction, emergency
21 response and operation and maintenance work. Negotiation services include development
22 of management strategies and negotiation support for technology applications and

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 remedy selection, construction claims and other disputes. Expert services include
2 analysis, expert reports and testimony regarding industrial operations, environmental
3 conditions, and allocation claims.

4
5 ***Q4. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY OR TESTIFIED BEFORE***
6 ***THE PUCO?***

7 ***A4.*** Yes. I provided written and oral testimony in Case No. 12-1685-GA-AIR, et al.

8
9 ***Q5. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY OTHER FORUMS?***

10 ***A5.*** Yes. I have provided testimony in the U.S. Court of Claims, Clarion County Court of
11 Common Pleas, Pennsylvania, and served as an expert in various Comprehensive
12 Environmental Response, Compensation, and Liability Act ("CERCLA") cost recovery
13 claims.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
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Case No. 19-174-GA-RDR, et al.

II. PURPOSE OF TESTIMONY

Q6. IN ITS REPORTS, THE PUCO STAFF RECOMMENDED THAT DUKE NOT BE ALLOWED TO CHARGE CUSTOMERS FOR REMEDIATION OUTSIDE THE GEOGRAPHIC BOUNDARIES OF THE WEST END AND EAST END SITES. ARE YOU PROVIDING ANY EXPERT OPINION ON THIS ISSUE?

A6. No. I understand that OCC witness Adkins will address this part of the Staff's recommendation.

Q7. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A7. My testimony focuses on the prudence of Duke's remediation efforts based on the VAP Rules¹ and my engineering expertise. I provide two alternative recommendations, one assuming that the PUCO adopts the Staff's Recommendation and one assuming that the PUCO does not.

The purpose of my testimony is to render an opinion on the scope and necessity of the MGP-related investigation and remediation activities at the East End and West End MGP Sites ("MGP Sites"). I also render an opinion on the prudence of the resultant costs that Duke is seeking to charge customers in this proceeding. The MGP-related investigation includes activities Duke performed to identify the nature and extent of the contamination at the MGP Sites. The MGP-related remediation includes activities that Duke performed

¹ "VAP Rules" Ohio Adm. Code 3745-300, et seq.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 to clean up the MGP Sites. Duke is seeking to collect \$45,845,772 million from
2 customers for MGP Site investigation and remediation.

3
4 My testimony demonstrates that Duke's expenditures were excessive and imprudent for
5 MGP remediation. If the PUCO adopts the PUCO Staff's recommendation disallowing
6 remediation costs outside the bounds of the MGP Sites, customers should pay no more
7 than an additional \$3,876,102. If the PUCO does not adopt Staff's recommendation,
8 customers should pay no more than an additional \$10,059,313. My recommendation
9 compares to Duke's plan to charge customers significantly more—\$45.8 million for the
10 investigation and remediation efforts.

11
12 It would have been prudent for Duke to have developed remedial action plans
13 incorporating cost-effective, protective measures for the MGP Sites, instead of the much
14 more expensive excavation/disposal and in-situ solidification approach employed by
15 Duke. Duke chose to spend significant dollars—\$45.8 million—for investigation and
16 remediation of the MGP Sites. This amount is far more than is required under Ohio
17 EPA's VAP Rules. In my opinion, Ohio EPA's VAP Rules provide for protective
18 remedial alternatives that are far less costly than the remedial alternatives chosen by
19 Duke.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

III. ANALYSIS OF OHIO EPA'S VAP RULES

Q8. DO YOU BELIEVE THE SCOPE AND NECESSITY OF DUKE'S INVESTIGATION AND REMEDIATION EFFORTS SHOULD BE AN IMPORTANT CONSIDERATION FOR THE PUCO TO CONSIDER WHEN DETERMINING WHAT TO CHARGE DUKE'S CUSTOMERS?

A8. Yes.

Q9. WHY SHOULD THE PUCO BE CONCERNED WITH THE SCOPE AND NECESSITY OF THE REMEDIATION WORK THAT DUKE IS SEEKING TO CHARGE ITS CUSTOMERS?

A9. Reviewing the scope and necessity of the remediation work is an important step in ascertaining whether the dollars spent by Duke to investigate and remediate the MGP Sites were prudent. Duke is seeking to collect \$45.8 million in MGP Site investigation and remediation costs from gas customers in this case. But customers should not be charged for costs that were imprudently incurred. Any charges for imprudently incurred costs would be unreasonable to collect from customers.²

The majority of the costs sought by Duke in this proceeding are associated with investigation, design and remediation of the Middle and West of West (WOW) Parcels at the East End MGP Site and Phase 2A, Phase 3 and Tower Areas (investigation and design only) of the West End MGP Site. Duke conducted remedial alternative evaluations

² See R.C. 4905.22, 4909.154.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 for the Middle and WOW Parcels as well as Phase 3 and Tower areas, after being heavily
2 criticized by OCC and PUCO for not doing so during previous efforts. However,
3 conducting the alternatives evaluations did not change Duke's pre-conceived notions
4 about the type of remedial options it preferred. Duke again chose to excavate soil [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]. In doing so Duke continued to
8 employ remedial approaches that far exceed more cost effective and reasonable remedial
9 options provided for in Ohio EPA's VAP Rules. As a result, Duke spent significantly
10 more money than was necessary. For example, by applying institutional controls and
11 adopting commonly used risk mitigation measures, soil remediation could have been
12 accomplished much more cost-effectively (i.e., without significant excavation) by
13 construction of engineering controls, such as soil or asphalt covers. Duke's current claim,
14 covering calendar years 2013 through 2018, included approximately [REDACTED] in
15 construction cost associated with the West End Phase 2A area and portions of Middle
16 Parcel and the WOW area at the East End MGP Site. If Duke had employed a prudent
17 remedial approach based on engineering controls, such as soil or asphalt covers, and risk
18 mitigation plans the work could have been completed for much less—\$2.2 million.

19
20 The Utility's management decision to exceed reasonable, cost effective and protective
21 VAP requirements, and to spend excessively to conduct remediation that was not
22 necessary under Ohio EPA's VAP Rules, constitutes imprudence on Duke's part.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 Customers of Duke should not have to pay for such imprudence. Had Duke more
2 reasonably interpreted and applied the VAP Rules, more cost effective and protective
3 MGP Site remedies could have, and should have, been implemented. The Utility could
4 have avoided making the imprudent expenditures that it did.

5
6 Therefore, in my opinion, the PUCO should deny Duke the opportunity to collect from
7 customers costs that were imprudently spent by the Utility in furtherance of management
8 policies designed to conduct remediation that is not required by the VAP Rules.

9
10 ***Q10. HAVE YOU REVIEWED THE SCOPE OF DUKE'S REMEDIATION EFFORTS***
11 ***RELATIVE TO OHIO EPA'S VAP RULES?***

12 ***A10.*** Yes.

13
14 ***Q11. WHAT HAVE YOU DETERMINED?***

15 ***A11.*** The VAP Rules do not require the extensive remediation efforts that Duke elected to
16 implement. Had Duke more reasonably interpreted and applied the VAP Rules, more cost
17 effective and protective MGP Site remedies could have, and should have, been
18 implemented. The Utility could have avoided making the imprudent expenditures that it
19 did.

20
21 My testimony outlines a more reasonable and cost-effective remedial approach that is
22 consistent with the VAP Rules and protective of human health and the environment. This

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 remedial approach includes use of engineering controls³ and institutional controls⁴ that
2 are widely employed in the environmental remediation industry. In fact, such controls are
3 specifically called for, under certain circumstances, in Ohio EPA's VAP Rules.

4
5 ***Q12. DO OHIO EPA'S VAP RULES SPECIFY HOW OR WHEN REMEDIATION***
6 ***SHOULD BE CONDUCTED?***

7 ***A12.*** No. The VAP Rules require that a remedy be implemented for a site if chemicals of
8 concern⁵ are present in soil, sediment or groundwater (media) at concentrations above
9 applicable standards for a complete exposure pathway.⁶ Applicable standards for a
10 remedy are developed based on existing or reasonably anticipated future exposure
11 pathways⁷ for each media. However, the VAP Rules do not mandate a specific approach
12 or time frame for how and when remediation should be conducted. Instead, the entity that
13 is implementing VAP Rules is responsible for determining what specific actions are
14 necessary, and when. My experience with MGP-related remedial activities that have not
15 involved public utilities is that such remedies are conducted in a more practical, cost

³ VAP Rule 3745-300-01 defines an engineering control as "any structure, system, or barrier that effectively and reliably eliminates or mitigates human or important ecological resource exposure to hazardous substances or petroleum on, underlying or emanating from a property, which is protective of human health, safety and the environment."

⁴ VAP Rule 3745-300-01 defines an institutional control as "a restriction that is recorded in the same manner as a deed which limits access to or use of the property such that exposure to hazardous substances or petroleum are effectively and reliably eliminated or mitigated. Examples of institutional controls include land and water use restrictions."

⁵ For example, polycyclic aromatic hydrocarbons (PAHs) common to MGP tars.

⁶ VAP Rule 3745-300-07 (Phase II Property Assessments).

⁷ An exposure pathway is an environmental term of art that describes how a person (or flora or fauna) could be exposed to contaminated media. For example, a construction worker could be exposed to contaminated soil through direct dermal contact or inhalation of dust. These exposure pathways would be referred to as direct contact and inhalation exposure pathways.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 effective manner than employed by Duke. Duke's approach to remediation of the MGP
2 Sites does not appear to have sufficiently emphasized or considered cost as a relevant
3 factor. However, cost is an especially important evaluation factor where Duke seeks to
4 charge customers for the cost it incurs.

5
6 ***Q13. HOW IS THE SCOPE OF A REMEDY DETERMINED UNDER OHIO EPA'S VAP?***

7 ***A13.*** Under the VAP Rules, applicable standards and points of compliance (i.e., the location
8 where remediation standards are applied) are developed for each media (e.g., soil or
9 groundwater) to guide the scope and extent of the remediation necessary for a site.⁸

10
11 ***Q14. DID DUKE USE THE APPROPRIATE POINTS OF COMPLIANCE FOR***
12 ***REMEDiation BASED ON DIRECT CONTACT WITH SOIL?***

13 ***A14.*** No. Duke determined that [REDACTED] for soil at the MGP Sites
14 should be based on [REDACTED]
15 [REDACTED].⁹ The VAP Rules
16 identify the soil media points of compliance that can be applicable—but may be
17 modified—to these exposure pathways as follows:¹⁰

⁸ VAP Rule 3745-300-08 (Generic Numerical Standards).

⁹ OCC-POD-01-001(q) CONF Attachment East End at 27, attached as Attachment JRC-7 CONFIDENTIAL.

¹⁰ VAP Rule 3745-300-07 (Phase II Property Assessments).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

- 1 • If institutional controls¹¹ limiting a property's land use are applied, the
2 point of compliance is from the ground surface to a minimum depth of two
3 feet and at depths greater than two feet when it is reasonably anticipated
4 that exposure to soil will occur through excavation, grading or utilities
5 maintenance.
- 6 • Where it is reasonably anticipated that excavation, grading, or other
7 construction activities will occur, the point of compliance is from the
8 ground surface to a minimum depth equal to the maximum depth
9 reasonably anticipated for activities at the property. However, a Risk
10 Mitigation Plan may be used to protect construction workers if excavation
11 extends below two feet into contaminated material.¹²

12
13 Duke chose to excavate soil [REDACTED]
14 [REDACTED]
15 [REDACTED] vation.¹³ This
16 is approximately [REDACTED] excavation than was needed. In doing so, Duke
17 failed to use more reasonable and cost-effective approaches available under Ohio EPA's
18 VAP. For example, by applying institutional controls and adopting commonly used risk
19 mitigation measures, soil remediation could have been accomplished much more cost-

¹¹ For example, an Environmental Covenant limiting land use to commercial applications and prohibiting use of groundwater.

¹² Ohio VAP Risk Mitigation Plan Template and VAP Rule 3745-300-11 (Remediation).

¹³ OCC-POD-01-001(s) CONF Attachment East End, attached as Attachment JRC-8 CONFIDENTIAL.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

effectively (*i.e.*, without significant excavation) by construction of soil covers.¹⁴ Soil covers (*i.e.*, two feet of soil with grass cover) will reasonably prevent human exposure to contaminated soil.

For example, for the East End MGP Middle Parcel, Duke concluded "[REDACTED]"
[REDACTED]
[REDACTED]."¹⁵ Duke, nonetheless, proceeded to conduct unnecessary and imprudent soil remediation at a cost of [REDACTED]

Q15. DO OHIO EPA'S VAP RULES ALLOW RISK MITIGATION MEASURES TO BE USED FOR REMEDIATION IN LIEU OF EXCAVATION?

A15. Yes. The VAP Rules allow risk mitigation measures (such as described below) to be undertaken in lieu of excavation.¹⁶ One less expensive alternative to the more extensive and expensive approach taken by Duke is to control direct contact exposure to contaminated soils by constructing engineering controls such as soil covers or asphalt paving. Institutional controls can then be established to limit future uses of the site to those that are consistent with the engineering controls and future commercial/industrial use assumptions.

¹⁴ VAP Rules 3745-300-07 (Phase II Property Assessments) and 3745-300-11 (Remediation).

¹⁵ OCC-POD-01-001(q) CONF Attachment East End at 28, attached as Attachment JRC-7 CONFIDENTIAL.

¹⁶ VAP Rule 3745-300-11 (Remediation).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 Institutional controls and Risk Mitigation Plans can also prohibit excavation of
2 contaminated soil without proper personnel protective equipment (“PPE”) and establish
3 soil handling controls to protect workers and the environment. Specification of PPE and
4 soil handling requirements can be accomplished through a Risk Mitigation Plan linked to
5 the institutional control. Risk Mitigation Plans are commonly accepted exposure control
6 mechanisms used in environmental remediation. Risk Mitigation Plans are accepted by
7 both industry and regulatory agencies, incorporated into the VAP and would have been a
8 more reasonable remediation measure for Duke at the MGP Sites.

9
10 ***Q16. WHAT CAN BE LEARNED FROM OHIO EPA'S VAP GUIDANCE DISCUSSED IN***
11 ***THE PREVIOUS ANSWER?***

12 ***A16.*** The preceding testimony shows the flexibility provided for in the VAP Rules for soil
13 remediation. It would have been prudent for Duke to have taken advantage of that
14 flexibility to implement a more reasonable remediation approach of using soil covers,
15 engineering controls and institutional controls. Duke’s approach of extensive soil
16 excavation was not necessary for protection from commercial and industrial use soil
17 exposure pathways, including construction and excavation exposures.¹⁷ The VAP rules
18 do not require the costly remedial approach employed by Duke. It is unreasonable for the
19 PUCO to simply pass along these excessive costs to customers.

¹⁷ VAP Rule 3745-300-11 (Remediation).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
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Case No. 19-174-GA-RDR, et al.

1 **Q17. DO THE VAP RULES ADDRESS SOIL REMEDIATION FOR PROTECTION OF**
2 **GROUNDWATER?**

3 **A17.** Yes. The VAP Rules include the option of analyzing the potential for leaching of
4 chemical(s) of concern from soils to groundwater. However, Duke [REDACTED]
5 [REDACTED]¹⁸ The Middle
6 Parcel of the East End MGP Site Phase 2 Report does not include an evaluation of
7 [REDACTED].¹⁹ As such, Duke must not have [REDACTED]
8 [REDACTED].

9
10 The VAP Rules also include groundwater protection “soil saturation” concentrations for
11 some contaminants.²⁰ Single compound soil saturation concentrations apply to
12 compounds that are liquids at ambient temperature. Soil saturation concentrations are
13 meant to be an indicator for when pure organic liquids (*e.g.*, a solvent such as acetone
14 (nail polish remover)) could be present and thus be a threat to groundwater quality.
15 Contamination at the MGP Sites is the result of releases of tar, which is a mixture of
16 multiple compounds (most of which are solids at ambient temperature). As such, single
17 compound saturation does not apply to the MGP Sites.

¹⁸ OCC-POD-01-001(j) CONF Attachment West End at page 165 of 437, attached as Attachment JRC-9
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¹⁹ OCC-POD-01-001(q) CONF Attachment East End at 26 and 27, attached as Attachment JRC-7
CONFIDENTIAL.

²⁰ VAP Rule 3745-300-08 (Generic Numerical Standards).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 **Q18. WHAT IS YOUR OPINION REGARDING THE NECESSITY AND SCOPE OF THE**
2 **SOIL REMEDIATION EFFORTS EMPLOYED BY DUKE AT THE MGP SITES?**

3 **A18.** The scope of Duke's soil remediation efforts for the exposure pathways described above
4 was excessive and imprudent and resulted in Duke spending considerably more than was
5 necessary under the VAP Rules. Duke was not required to conduct soil excavation and
6 solidification at a cost of approximately [REDACTED]. Duke's choice of an overly
7 expensive remediation program should not fall on the shoulders of its customers.
8

9 **Q19. DID DUKE APPLY THE APPROPRIATE POINT OF COMPLIANCE FOR**
10 **GROUNDWATER REMEDIATION?**

11 **A19.** No. While Duke [REDACTED]
12 [REDACTED]²¹
13 Duke appears to have inappropriately concluded that [REDACTED]
14 [REDACTED]. Duke consistently failed to use
15 more cost-effective approaches available under the VAP Rules. That failure to pursue
16 more cost-effective approaches should be borne by Duke's shareholders and not its
17 customers.

²¹ OCC-POD-01-001(q) CONF Attachment East End at 27 and 28, attached as Attachment JRC-7
CONFIDENTIAL, OCC-POD-01-001(d) CONF Attachment West End at 4-1, attached as Attachment JRC-10
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PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 **Q20. WHAT DO OHIO EPA'S VAP RULES PROVIDE FOR REGARDING THE POINT**
2 **OF COMPLIANCE FOR GROUNDWATER REMEDIATION?**

3 **A20.** The VAP Rules provide for use of institutional controls, Urban Setting Designations
4 (“USDs”) and variances to affect how and where groundwater standards are applied. For
5 the hydrogeologic (*i.e.*, subsurface) conditions encountered at the MGP Sites, the VAP
6 Rules define MGP Site groundwater as “critical resource groundwater.” For critical
7 resource groundwater where the contaminant source areas are on the property (as they are
8 for the MGP sites), the VAP Rules²² require implementation of institutional controls
9 (*e.g.*, use restrictions) or engineering controls (*e.g.*, fences, soil covers) to prevent on-site
10 exposure to contaminated groundwater. The VAP Rules²³ then require that groundwater
11 emanating from the property must not exceed UPUS, except where groundwater
12 discharges to surface water, in which case applicable surface water standards apply. If
13 UPUS or surface water standards are not exceeded at the property boundary, no
14 additional groundwater remedy (*i.e.*, in addition to institutional controls and engineering
15 controls) is required. If an USD has been granted for the area around the property, then
16 the same requirements apply except that the point of compliance is the USD area
17 boundary (or a maximum of 0.5 miles from the property boundary). If UPUS are or will
18 be exceeded at the property, surface water or USD area boundary, the VAP Rules²⁴
19 require that groundwater beyond the boundary be restored to UPUS or a reliable alternate
20 water supply be provided to affected users. This means that the remedy needs to be

²² VAP Rule 3745-300-10 (Ground Water Classification and Potable Use Response Requirements).

²³ VAP Rule 3745-300-10 (Ground Water Classification and Potable Use Response Requirements).

²⁴ VAP Rule 3745-300-10 (Ground Water Classification and Potable Use Response Requirements).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 sufficient to prevent exceedance of UPUS at the property or USD area boundaries (or an
2 alternate water supply needs to be provided to any users in the affected area).

3
4 ***Q21. DOES THE GROUNDWATER EMANATING FROM THE MGP SITES***
5 ***CURRENTLY EXCEED APPLICABLE STANDARDS?***

6 ***A21.*** Groundwater at the MGP Sites basically flows south to the Ohio River. There is no
7 indication in the MGP Site environmental reports provided by Duke that groundwater
8 discharging from the southern site boundaries into the Ohio River [REDACTED]
9 [REDACTED]. The northern property
10 boundaries are upgradient to the groundwater flow direction. Groundwater from the MGP
11 Sites cannot flow upgradient (groundwater does not flow uphill) across the northern
12 boundaries. There is no indication in the MGP Site environmental reports provided by
13 Duke that [REDACTED]. The eastern and
14 western property boundaries of the MGP Sites are basically side gradient to the
15 groundwater flow direction. If there is, or could be, an exceedance at the eastern or
16 western boundaries, a USD could be used to expand the point of compliance beyond the
17 exceedance. However, Duke has not applied for a USD.²⁵

²⁵ Duke Response to OCC-INT-02-004, attached as Attachment JRC-11.

PUBLIC VERSION
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On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

Q22. UNDER WHAT CONDITIONS DO OHIO EPA'S VAP RULES ACCEPT AN URBAN SETTING DESIGNATION FOR GROUNDWATER COMPLIANCE?

A22. VAP Guidance provides additional explanation of how and where the USD can be applied. These conditions apply to the MGP Sites.

An urban setting designation involves a formal recognition by the Ohio EPA that ground water in qualifying urban areas is not currently used as a source of drinking water and is not expected to be needed to meet the demands for public water supplies in the foreseeable future. An approved urban setting designation provides exceptions to certain response requirements for Critical Resources or Class A ground water in the designated areas.

A USD may be requested for properties when there is no current or future use of ground water by local residents for the purpose of drinking, showering, bathing, or cooking. There are areas within Ohio where, because of the urban nature of land use and the reliance on alternative community water systems to supply residents with safe drinking water, ground water is not used as a potable water supply. Thus, ground water that contains chemicals from prior industrial activities poses no potable use risk to the community because it is not used and will not likely be used by humans. In these locations, *an approved USD would lower the cost of cleanup* and

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 thereby promote economic redevelopment while still protecting public
2 health and safety. Voluntary actions within USD areas must protect
3 ecological receptors and humans from any exposures including exposures
4 to ground water not related to drinking, showering, bathing, or cooking.²⁶

5
6 USDs have been granted for dozens of Sites under the VAP, including for entire
7 cities (e.g., Warren and Youngstown).²⁷ Duke should apply for a USD.

8
9 ***Q23. DO THE VAP RULES ADDRESS “FREE PRODUCT” IN THE GROUND?***

10 ***A23.*** Yes. The VAP Rules²⁸ define free product (e.g., liquid, mobile tar) as “a separate liquid
11 hydrocarbon phase that has a measurable thickness of greater than one one-hundredth of
12 a foot.” Such measurements are collected in groundwater monitoring wells.

13
14 ***Q24. WAS FREE PRODUCT IDENTIFIED AT THE MIDDLE PARCEL OR WOW***
15 ***PARCEL OF THE EAST END MGP SITE OR PHASE 2A AREA OF THE WEST***
16 ***END SITE?***

17 ***A24.*** Free product (also referred to as DNAPL) [REDACTED]
18 [REDACTED]

²⁶ VAP Technical Guidance Compendium VA30010.09.006 (Urban Setting Designation Notification Letter: Purpose of USD and Standards) (emphasis added).

²⁷ <https://oepra.maps.arcgis.com/apps/webappviewer/index.html?id=ae884981d088410fab36cabfaa9cfdc5>

²⁸ VAP Rule 3745-300-01(Definitions).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 [REDACTED] .²⁹ Free product [REDACTED]

2 [REDACTED] .³⁰

3
4 ***Q25. DOES THE EXISTENCE OF FREE PRODUCT REQUIRE REMEDIATION?***

5 ***A25.*** Yes, but the remedial approach can be limited. The requirement under the VAP Rules
6 applies only to the extent that groundwater beyond the property or USD area boundaries
7 may be affected. As mentioned earlier in my testimony, groundwater quality may not
8 exceed UPUS at the property boundaries and would not exceed UPUS at appropriate
9 USD boundaries. As such, under the VAP Rules, the presence of free product does not
10 require the extensive and imprudent soil remediation conducted by Duke. As a practical
11 matter, remediation of free product could be accomplished much more cost effectively
12 with DNAPL recovery wells.

13
14 ***Q26. DO OHIO EPA'S VAP RULES ALLOW FOR VARIANCES THAT LIMIT THE***
15 ***SCOPE OF REMEDIATION FOR FREE PRODUCT?***

16 ***A26.*** Yes. Even if free product affected groundwater quality at the property or USD
17 boundaries, Duke could have applied for a variance under the VAP Rules to limit the
18 scope of the remediation. The VAP Rules³¹ allow for a variance from established
19 standards, such as groundwater UPUS, based on: 1) technical infeasibility or if the cost
20 substantially exceeds the economic benefits; 2) if the proposed remediation method (e.g.,

²⁹ OCC-POD-02-004 (b) CONF SUPP Attach, attached as Attachment JRC-12 CONFIDENTIAL.

³⁰ OCC-POD-01-001 (cc) CONF Attachment West End at 9, attached as Attachment JRC-13 CONFIDENTIAL.

³¹ VAP Rule 3745-300-12 (Variances and Case-by-Case Determinations).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

institutional controls and engineering controls) of addressing the issue will ensure that public health and safety will be protected; and 3) and if the proposed remediation method is necessary to promote, protect, preserve or enhance employment opportunities or the reuse of the affected property.

Q27. DO THE COSTS BEING CLAIMED FOR RECOVERY BY DUKE INCLUDE GROUNDWATER REMEDIATION COSTS?

A27. [REDACTED] The Phase 2 Property Assessment Report for the Middle Parcel of the East End Site states the following with respect to groundwater remediation:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ”³²

The Focused Remedial Alternatives Analysis for the East End Site includes the following Remedial Action Objective:

³² OCC-POD-01-001(q) CONF Attachment East End at iv, attached as Attachment JRC-7 CONFIDENTIAL.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED] ”33

5
6 The Phase 2 Property Assessment Report for the West End Site states the following with
7 respect to groundwater remediation:

8
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED] 34

13
14 ***Q28. HAS DUKE ASKED ITS CERTIFIED PROFESSIONALS TO ISSUE A NO***
15 ***FURTHER ACTION LETTERS OR REQUEST A COVENANT NOT TO SUE***
16 ***FROM OHIO EPA FOR THE EAST END OR WEST END MGP SITES?***

17 ***A28.*** No. Duke has not asked its CPs to issue a No Further Action Letter or request a Covenant
18 Not to Sue for either of the MGP Site.³⁵ Both sites are years away from achieving those
19 ends points. Duke’s imprudent and excessive remediation approach has not materially

³³ OCC-POD-01-001(p) CONF Attachment East End at 11, attached as Attachment JRC-14 CONFIDENTIAL.

³⁴ OCC-POD-01-001(d) CONF Attachment West End at 5-2, attached as Attachment JRC-10 CONFIDENTIAL.

³⁵ Duke Response to OCC-INT-02-002, attached as Attachment JRC-15; Duke Response to OCC-INT-02-003, attached as Attachment JRC-16.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 shortened the time frame required to reach those end points. Applying an Urban Setting
2 Designation to the East and West End MGP Sites would do far more to shorten the time
3 frame to closure than spending tens of millions of dollars in imprudent and excessive
4 remediation, as Duke has done.

5 **IV. REVIEW OF RECOMMENDED RECOVERABLE INVESTIGATION AND**
6 **REMEDATION EXPENSES**

7 ***Q29. DID THE STAFF REPORT PROVIDE A RECOMMENDATION FOR EXCLUDING***
8 ***INVESTIGATION AND REMEDIATION EXPENSES FROM RECOVERY?***

9 ***A29.*** Yes. The Staff Report recommended exclusion of costs associated with investigation and
10 remediation of “the parcel of land adjacent to the East End site that the Commission
11 denied for recovery, known as the Area West of the West Parcel (“WOW”), and costs
12 associated with investigation or remediation of soil, water or any other tracts of land
13 located outside the original footprint” of the East End and West End sites.³⁶ In addition,
14 the Staff Report recommended exclusion of cost associated with “relocation of an electric
15 substation on the site to accommodate the Brent Spence Bridge replacement project” and
16 “relocation of nitrogen tanks for use in the electrical substation and construction of a new
17 metal staircase to access the building on the West End.”³⁷ As mentioned above, my
18 testimony does not take any position on these issues because they are utility regulatory

³⁶ Staff Report at 3-5 (September 28, 2018) and Staff Report at 5-6 (July 12, 2019).

³⁷ Staff Report at 5 (September 28, 2018) and Staff Report at 6 (July 12, 2019).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 issues, not VAP or engineering issues. OCC witness Adkins discusses OCC's position on
2 these topics. The Staff Report also provided a specific evaluation of recoverable costs.³⁸
3

4 ***Q30. HAVE YOU REVIEWED THE PUCO STAFF'S SPECIFIC EVALUATION?***

5 ***A30.*** Yes.
6

7 ***Q31. WHAT HAVE YOU DETERMINED?***

8 ***A31.*** The PUCO's evaluation of charges to customers should address not only the PUCO
9 Staff's recommendations identified above, but also an evaluation regarding the scope of
10 remediation and whether remediation was necessary. Such an evaluation is an essential
11 part of determining whether Duke's expenditures are reasonable and prudent, and
12 whether the expenditures may be charged to customers. Thus, a recommendation for
13 recoverable costs should include an analysis of remediation work performed by Duke
14 compared to an interpretation of the VAP Rules regarding necessity and scope of
15 remediation, as provided in my testimony.
16

17 ***Q32. DID THE STAFF RECOMMEND ELIMINATION OF ANY COSTS FOR THE***
18 ***WEST END MGP SITE?***

19 ***A32.*** Yes. The Staff Report recommended "adjustments to Duke's proposed recovery amounts
20 to remove costs associated with relocation of an electric substation on the site to
21 accommodate the Brent Spence Bridge replacement project and investigation and

³⁸ Staff Report at 3-5 (September 28, 2018) and Staff Report at 5-9 (July 12, 2019).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 remediation work that was performed outside of the West End site boundaries.”³⁹ The
2 Staff Report “made an adjustment to remove the offsite costs, specifically, costs that were
3 associated with investigation and remediation in the Ohio River” and “relocation of
4 nitrogen tanks for use in the electrical substation and construction of a new metal
5 staircase to access the building on the West End site.”⁴⁰ Staff recommended removing
6 \$2,639,599 from Duke’s cost claim for the West End Site.⁴¹

7
8 ***Q33. WHAT IS YOUR RECOMMENDATION FOR AN APPROPRIATE SOIL REMEDY***
9 ***FOR THE PHASE 2A AREA OF THE WEST END MGP SITE?***

10 ***A33.*** Although the PUCO Staff did significantly reduce the amount of cost from Duke’s
11 request in its Application, as previously mentioned, the amount of money for this limited
12 recovery should be adjusted further downward based on prudent remedial approaches
13 allowed under the VAP Rules, as discussed earlier. An appropriate soil remedy for the
14 Phase 2A Area of the West End MGP Site should be limited to:

- 15
16 1) Engineering controls in the form of maintaining the existing
17 perimeter fence to limit and control access to the Site and
18 construction of a two-foot soil cover for protection of workers
19 from direct contact with contaminated soils.

³⁹ Staff Report at 5 (September 28, 2018).

⁴⁰ Staff Report at 6 (July 12, 2019).

⁴¹ Staff Report at 9 (July 12, 2019).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 2) Institutional controls should be applied in the form of an
2 Environmental Covenant restricting future use of the property to
3 commercial/industrial uses, prohibiting use of groundwater, and
4 requiring mitigation measures in the form of a Risk Mitigation
5 Plan.

6
7 The Risk Mitigation Plan would provide procedures for any required future excavation. If
8 and when soil needed to be excavated, the work would be conducted in accordance with
9 the procedures outlined by Duke in the Risk Mitigation Plan. Such procedures would
10 protect human health and the environment by specifying how the excavation should be
11 completed, worker protection standards, requirements for management and disposal of
12 contaminated soils, backfilling and replacement of the soil cover. As Duke owns the
13 property and it is used for commercial/industrial purposes and has limited access, this
14 approach is imminently practical.

15
16 ***Q34. DID THE STAFF RECOMMEND ELMINATATION OF RECOVERY OF ANY***
17 ***COSTS FOR THE EAST END MGP SITE?***

18 ***A34.*** Yes. The Staff Report recommended removing 50% of costs incurred from 2013 through
19 2016 and 2018 and 70% of cost incurred in 2017 because the costs were associated with
20 the WOW parcel and cost associated with activities taking place in the Ohio River.⁴²

⁴² Staff Report at 4 (September 28, 2018) and Staff Report at 5-6 (July 12, 2019).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 Staff recommended removing \$20,594,543 from Duke's cost claim for the East End
2 Site.⁴³

3
4 ***Q35. WHAT IS YOUR RECOMMENDATION FOR AN APPROPRIATE SOIL REMEDY***
5 ***FOR THE MIDDEL PARCEL OF THE EAST END MGP SITE?***

6 ***A35.*** Although the PUCO Staff did significantly reduce the level of recoverable costs from
7 Duke's request in its Application, as previously mentioned, the amount of money for this
8 limited recovery should be adjusted further downward based on prudent remedial
9 approaches allowed under the VAP Rules, as discussed earlier. An appropriate soil
10 remedy for the Middle Parcel of the East End MGP Site should be limited to:

- 11
12 1) Engineering controls in the form of maintaining the existing
13 perimeter fence to limit and control access to the Site and
14 construction of a two-foot soil cover for protection of workers
15 from direct contact with contaminated soils.
16 2) Institutional controls should be applied in the form of an
17 Environmental Covenant restricting future use of the property to
18 commercial/industrial uses, prohibiting use of groundwater, and
19 requiring mitigation measures in the form of a Risk Mitigation
20 Plan.

⁴³ Staff Report at 9 (July 12, 2019).

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 The Risk Mitigation Plan would provide procedures for any required future excavation. If
2 and when soil needed to be excavated, the work would be conducted in accordance with
3 the procedures outlined by Duke in the Risk Mitigation Plan. Such procedures would
4 protect human health and the environment by specifying how the excavation should be
5 completed, worker protection standards, requirements for management and disposal of
6 contaminated soils, backfilling and replacement of the soil cover. As Duke owns the
7 property and it is used for commercial/industrial purposes and has limited access, this
8 approach is eminently practical and reasonable, without overly burdening customers who
9 are charged for such expenses.
10

11 ***Q36. WHAT IS YOUR RECOMMENDATION FOR THE AMOUNT THAT DUKE***
12 ***SHOULD BE ALLOWED TO CHARGE CUSTOMERS FOR INVESTIGATION AND***
13 ***SOIL REMEDIATION EXPENSES?***

14 ***A36.*** Attachments JRC-2 and JRC-3 identify the maximum costs that Duke should be allowed
15 to charge customers for 2013 to 2018 MGP investigation and remediation based on
16 prudent remedial approaches allowed under the VAP Rules, as discussed earlier. The
17 recommendation is based on the Staff review of Duke's claim as well as the remedial
18 approach outlined in this testimony. I recommend charges of no more than \$3,876,102.

19
20 A comparison of my recommendations to the Company and Staff is shown in Table 1
21 below:

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

TABLE 1
SUMMARY OF INVESTIGATION AND SOIL REMEDIATION
COSTS FOR STAFF DEFINED PORTIONS OF THE TWO MGP SITES

MGP	Duke	Staff	OCC
East End MGP	\$33,022,327	\$12,428,054	\$2,387,342
West End MGP	\$12,823,445	\$10,183,847	\$1,488,760
Total	\$45,845,772	\$22,611,901	\$3,876,102

**V. APPLICATION OF RECOMMENDED REMEDIAL APPROACH TO THE ENTIRETY
OF BOTH MGP SITES**

***Q37. IF THE PUCO ALLOWS DUKE TO CHARGE CUSTOMERS FOR PRUDENT
REMEDiation OF THE PURCHASED PARCEL/WEST OF THE WEST PARCEL,
THE OHIO RIVER, AND OTHER AREAS OUTSIDE THE BOUNDARIES OF THE
MGP SITES, WHAT WOULD YOUR RECOMMENDATION BE?***

A37. For the East End MGP, the soil remedy recommended in A35 would be applied to both the WOW and Middle Parcels. As presented in Attachment JRC-4, the maximum amount Duke should be allowed to charge customers for the East End Site should be \$5,914,033 based on prudent remedial approaches allowed under the VAP Rules, as discussed earlier.

For the West End MGP, the soil remedy recommend in A33 would be applied and as presented in Attachment JRC-5, the maximum amount Duke should be allowed to charge customers for the West End Site should be \$4,145,280 based on prudent remedial approaches allowed under the VAP Rules, as discussed earlier.

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

Q38. HOW DO THE RECOMMENDED COSTS COMPARE WITH THE COSTS CLAIMED BY DUKE?

A38. A comparison of my recommendations to Duke's Claim is shown in Table 2 below:

TABLE 2
SUMMARY OF INVESTIGATION AND SOIL REMEDIATION
COSTS FOR THE TWO MGP SITES IN THEIR ENTIRETY

MGP	Duke	OCC
East End MGP	\$33,022,327	\$5,914,033
West End MGP	\$12,823,445	\$4,145,280
Total	\$45,845,772	\$10,059,313

VI. CONCLUSION

Q39. WHAT IS YOUR RECOMMENDATION?

A39. For the portions of the property within the MGP Sites that Staff determined to be appropriate for recovery, based on prudent remedial approaches allowed under the VAP Rules, as discussed. I recommend that Duke be allowed to charge customers no more than \$3,876,102 for MGP investigation and remediation from 2013 to 2018. This compares to Staff's recommendation for cost recovery for the two MGP-Sites of \$22,611,901.

Alternatively, if the PUCO determines that the investigation and soil remediation activities implemented by Duke for the entire East and West End MGP Sites are to be reviewed for collection from customers, then I recommend charges to customers of no more than \$5,914,033 for the East End MGP and \$4,145,280 for the West End MGP

PUBLIC VERSION
Direct Testimony of James R. Campbell, Ph.D.
On Behalf of the Office of the Ohio Consumers' Counsel
Case No. 19-174-GA-RDR, et al.

1 (total amount for the East End and West End MGP Sites of \$10,059,313). This compares
2 to the Utility's total requested amount for investigation and soil remediation costs to be
3 collected from customers of \$45.8 million.
4

5 ***Q40. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?***

6 ***A40.*** Yes. However, I reserve the right to incorporate new information that may subsequently
7 become available through outstanding discovery or otherwise. I also reserve the right to
8 supplement my testimony if the PUCO changes any of the recommendations and
9 conclusions in the Staff Report.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Direct Testimony of James R. Campbell (Public Version)* was served on the persons listed below via electronic service this 8th day of October 2019.

/s/ Christopher Healey
Christopher Healey
Assistant Consumers' Counsel

The PUCO's e-filing system will electronically serve notice of the filing of this document on the following parties:

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Attachment JRC – 1
Resume of Dr. James R. Campbell

JAMES R. CAMPBELL, Ph.D., P.E.

EDUCATION

Ph.D. Civil and Environmental Engineering, Carnegie-Mellon University
M.S. Civil and Environmental Engineering, Carnegie-Mellon University
B.E. Civil Engineering, Youngstown State University

REGISTRATION

Professional Engineer – Pennsylvania
Certified Professional – Ohio Voluntary Action Program

EXPERIENCE

Engineering Management, Inc. - 1992 - present

Principal - Owner of firm that specializes in management and negotiation services associated with construction and environmental liabilities as well as expert services for environmental and construction related dispute resolution. Management activities include coordination and oversight of investigation, design, construction, emergency response and operation and maintenance work. Negotiation services include development of management strategies and negotiation support for technology applications and remedy selection, construction claims and other disputes. Expert services include analysis, expert reports and testimony regarding industrial operations, environmental conditions, NCP consistency, allocation and construction claims.

Carnegie Mellon University - 2002 - 2010

Adjunct Professor – Team taught senior level engineering design course for the Department of Civil and Environmental Engineering. Prepared project assignments, presented lectures and worked with students in a studio setting regarding various design projects.

Beazer Environmental Services, Inc. - 1991 to 1992

Director of Remedial Design - Responsible for management of the remedial design phase for all internal and external projects. This included in-house development of conceptual designs as well as oversight of detailed design activities by subsidiary companies. The annual program budget for design activities was approximately \$5 million. Also provided management oversight for Beazer's technology joint venture company.

McLaren/Hart Environmental Engineering Corporation - 1990 to 1991

Principal Engineer - Responsible for client development and management of major projects with an emphasis on RCRA and CERCLA remedial actions. Client development activities included identification of sales leads, presentations, and preparation of proposals and qualification statements. Project activities included expert testimony, negotiation support, project direction, etc. Served as Trustee for a multi-million dollar PRP-led CERCLA remedial action.

James R. Campbell, Ph.D., P.E.

Page 2

Keystone Environmental Resources, Inc./Koppers Company, Inc. - 1984 to 1990

Division Manager - 1988 to 1990 - Managed Keystone's Environmental Science and Engineering Division that was comprised of approximately 55 professionals and technicians. The Division generated approximately \$5.5 million in annual net revenue through consulting services such as audits, site investigations, risk assessments, and feasibility studies. The Division's engineering services included treatability studies and conceptual designs for treatment of process wastewater, contaminated groundwater and soil. Development of proprietary treatment technologies was also handled within the Division. Accomplished goal of stabilizing the Division and returning it to profitability following the sale of Keystone.

Assistant Manager, Corporate Environmental Programs - 1988 - Responsible for managing Koppers' corporate environmental programs including RCRA, CERCLA, CWA, CAA, environmental auditing and training. Other responsibilities included acquisition/divestiture due diligence and management of environmental reserves.

Manager, Previously Operated Properties - 1986 to 1988 - Responsible for management of over 50 formerly owned/operated chemical plant sites and disposal sites having an annual program budget of approximately \$10 million. Environmental management responsibilities included oversight of investigatory and remedial activities, as well as negotiation of government orders and private party agreements. Other responsibilities included acquisition/divestiture due diligence, management of environmental reserves, negotiation of real estate transactions and coordination with counsel on environmental litigation and toxic tort actions.

Project Manager - 1984 to 1986 - Served as project manager for Superfund emergency response actions, RI/FS projects, and RCRA Part B permitting activities. Responsibilities included project budget and schedule considerations, negotiation of technical issues in government orders, work plans, and reports. Served as Koppers' representative in multi-PRP Superfund sites.

NUS Corporation - 1983 to 1984

Project Engineer - As a part of EPA Superfund contract work, responsibilities included process engineering, chemistry, and risk assessment portions of RI/FS projects. General duties included planning and scheduling of project activities as well as preparation of proposals and reports.

James R. Campbell, Ph.D., P.E.

Page 3

EXPERT ANALYSIS, REPORTS AND TESTIMONY

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- Tort Claim, Onder Reality, Inc. et al. v. Keyspan Corp. et al., Expert Affidavit, Supreme Court of the State of New York, County of Suffolk, Index No. 10-837, 2014.
- Expert Testimony in the Matter of the Application of Duke Energy Ohio, Inc. for an Increase in Gas Rates before the Public Utilities Commission Of Ohio Case No.12-1685-GA-AIR, 2012 and 2013.
- Cost Recovery at Former Oil Recycling Site, Expert Analysis, United States of America v. AK Steel Corporation et al., United States District Court for the Western District of Pennsylvania, Civil Action No. 97-1863, 2010 and 2012.
- Cost Recovery at Former Railcar Manufacturing and Repair Site, Expert Report and Deposition Testimony, Trinity Industries, Inc. v. Honeywell International, Inc., United States District Court for the Western District of Pennsylvania, Pittsburgh Division, Civil Action No. 2:08-cv-00211-DSC, 2009.
- Cost Recovery at Former Coke Plant and Tar Distillation Sites, Analysis of Coke Plant Operations, Declaration in Support of Motion to Intervene, United States of America v. ExxonMobil Corporation, U.S. District Court for the Northern District of West Virginia, Case No. 1:08-CV-124, 2009.
- Allocation Mediation at Former Manufactured Gas Plant/Tar Distillation Facility, Analysis of Tar Plant Operations, Expert Report, Mediation discussion support, 2009 (confidential).
- Cost Recovery at Landfill Site, Analysis of Remedial Options and Develop of Remedial Action Cost Estimate, Expert Report, Pennsauken Solid Waste Management Authority, et al. vs. James D. Morrissey, Inc., et al. in the Superior Court of New Jersey, Camden County: Law Division, Docket No. L-13345-91, 2008.
- Cost Recovery at Chemical Manufacturing Plant Site, Analysis of Necessity of Activities and Appropriateness of Response Cost, Expert Report and Deposition Testimony, Wacker Chemical Corporation vs. Bayer Cropscience, Inc., U.S. District Court for the Eastern District of Michigan, Southern Division, Case No. 2:05-CV-72207, 2006-2007.
- Allocation Arbitration at Former Coke Plant/Tar Distillation Facility, Analysis of Coke and Tar Plant Operations, Expert Report, Deposition and Arbitration Hearing Testimony, 2006-2007 (confidential).
- Cost Recovery at Industrial Park, Analysis of Plant Operations, Muniz et al. v. Rexnord et al. (Defendants) and Rexnord et al. (Third-Party Plaintiffs) v. Arrow et al. (Third-Party Defendants), in the United States District Court, Northern District of Illinois, Eastern Division, Civil Action No. 1:04-cv-02405, 2006.

James R. Campbell, Ph.D., P.E.

- Cost Recovery at Former Coke Plant Site, Analysis of Plant Operations and Response Costs, Maxus Energy Corp., et al. v. Ace Lakefront Properties, Inc. et al., in the United States District Court, Northern District of Ohio, Civil Action No. 1:00CV972, 2005.
- Property Takings Claim, Trial Testimony, John R Sand and Gravel Company v. United States of America, United States Court of Federal Claims, Case No. 02-509L, 2004.
- Cost Recovery at Former Oil Refinery Site, Analysis of Facts and Events, USA v. Sprague Energy Corp., et al. v. ARCADIS Geraghty & Miller, Inc. et al., in the United States District Court, Eastern District of North Carolina, Southern Division, Civil Action No. 7:01CV-14-F(1), 2004.
- Cost Recovery at Former Manufactured Gas Plant/Tar Plant Site, Analysis of Plant Operations, Beazer East, Inc. v. KeySpan Energy Services, Inc. and KeySpan Corporation v. Beazer East, Inc. and Honeywell International, Inc. in the United States District Court, Eastern District of New York, Case No. 02-CV-3728, 2004.
- Cost Recovery at Former Manufacturing Site, Evaluation of Response Cost, Coordination of Experts, Expert Report and Mediation Presentation, Signature at Durant LLC v. General Motors Corporation, Case No. CO2-0938.SBA, United States District Court, Northern District of California, 2002.
- Cost Recovery at Former Manufactured Gas Plant Site, Analysis of Plant Operations, Expert Report and Deposition Testimony, New Jersey Natural Gas Company v. St. Paul Fire & Marine Insurance Company, et al., Docket No. OCN-L-859-95, Superior Court New Jersey, Law Division: Ocean County, 2002.
- Cost Recovery at Former Manufactured Gas Plant Site, Analysis of Plant Operations, Expert Report and Deposition Testimony, Niagara Mohawk Power Corporation v. Consolidated Rail Corporation et al., Case No. 98-CV-1039, United States District Court, Northern District of New York, 2001.
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Page 7

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Ohio Environmental Protection Agency

**Division of Environmental Response & Revitalization
Voluntary Action Program**

Under the authority of Ohio Revised Code Section 3746.04 (B)(5) and Ohio Administrative Code Rule 3745-300-05

Recognizes

James R. Campbell

as a

Certified Professional
(Number CP 355)

FEB 05 2019

Issuance Date Certificate

Wanda L. Stivers

Director, Ohio Environmental Protection Agency

FEB 05 2020

Date of Expiration

Kevin Shock

Manager, Voluntary Action Program

SCOPE, LIMITATION, OBLIGATIONS AND RESPONSIBILITIES OF CERTIFICATION ON REVERSE SIDE

**ESTIMATE OF PRUDENT INVESTIGATION AND SOIL
REMEDATION COSTS
MIDDLE PARCEL OF THE EAST END MGP SITE**

FILED UNDER SEAL

INTENTIONALLY OMITTED

**ESTIMATE OF PRUDENT INVESTIGATION AND SOIL
REMEDICATION COSTS
PHASE 2A AREA OF THE WEST END MGP SITE**

FILED UNDER SEAL

INTENTIONALLY OMITTED

**ESTIMATE OF PRUDENT INVESTIGATION AND SOIL REMEDIATION
COSTS WEST OF WEST PARCEL AND MIDDLE PARCEL OF THE EAST
END MGP SITE**

FILED UNDER SEAL

INTENTIONALLY OMITTED

**ESTIMATE OF PRUDENT INVESTIGATION AND SOIL REMEDIATION
COSTS PHASE 2A AREA OF THE WEST END MGP SITE**

FILED UNDER SEAL

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**RELEVANT PAGES FROM HALEY & ALDRICH INVOICE DATED
DECEMBER 17, 2011**

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**OCC-POD-01-001(q) CONF ATTACHMENT EAST END
(relevant pages)**

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**OCC-POD-01-001(s) CONF ATTACHMENT EAST END
(relevant pages)**

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**OCC-POD-01-001(j) CONF ATTACHMENT WEST END
(relevant pages)**

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**OCC-POD-01-001(d) CONF ATTACHMENT WEST END
(relevant pages)**

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Attachment JRC – 11
Duke's Response to OCC INT-02-004

**Duke Energy Ohio
Case No. 19-0174-GA-RDR
OCC's Second Set of Interrogatories
Date Received: May 2, 2019**

OCC-INT-02-004

REQUEST:

Has Duke asked its Certified Professional(s) to issue an Urban Use Designation for the East End or West End MGP Sites?

RESPONSE:

Objection. This question is vague, ambiguous, calls for speculation and otherwise misstates facts. Without waiving said objection and to the extent discoverable, the Company presumes this question is referring to an "Urban Setting Designation" under the Ohio VAP. Only the Ohio EPA can issue Urban Setting Designations. Duke's CP has not requested that Ohio EPA issue an Urban Setting Designation at this time.

PERSON RESPONSIBLE: As to objection – Legal
As to response – Todd Bachand

**OCC-POD-02-004(b) CONF SUPP ATTACH
(relevant pages)**

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**OCC-POD-01-001(cc) CONF ATTACHMENT WEST END
(relevant pages)**

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**OCC-POD-01-001(p) CONF ATTACHMENT EAST END
(relevant pages)**

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Attachment JRC – 15
Duke's Response to OCC INT-02-002

**Duke Energy Ohio
Case No. 19-0174-GA-RDR
OCC's Second Set of Interrogatories
Date Received: May 2, 2019**

OCC-INT-02-002

REQUEST:

Has Duke asked its Certified Professional(s) to issue a No Further Action Letter for the East End or West End MGP Sites?

RESPONSE:

No, as the East End and West End sites do not yet meet all applicable standards to qualify for a No Further Action Letter under the VAP at this time.

PERSON RESPONSIBLE: Todd Bachand

Attachment JRC – 16
Duke's Response to OCC INT-02-003

**Duke Energy Ohio
Case No. 19-0174-GA-RDR
OCC's Second Set of Interrogatories
Date Received: May 2, 2019**

OCC-INT-02-003

REQUEST:

Has Duke requested a Covenant Not to Sue from Ohio EPA for East End or West End MGP Sites?

RESPONSE:

No, as the East End and West End sites do not yet meet all applicable standards to support a Covenant Not to Sue under the VAP at this time.

PERSON RESPONSIBLE: Todd Bachand

This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 14-0375-GA-RDR, 15-0452-GA-RDR, 16-0542-GA-RDR, 17-0596-GA-RDR, 18-0283-GA-RD

Summary: Testimony Direct Testimony of James R. Campbell, Ph.D on Behalf of The Office of The Ohio Consumers' Counsel - Public Version electronically filed by Mrs. Tracy J Greene on behalf of Healey, Christopher