

BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of)	
Harrison Power LLC for a Certificate)	
of Environmental Compatibility and)	Case No. 17-1189-EL-BGN
Public Need for the Harrison Power)	
Plant in Harrison County)	

DIRECT TESTIMONY OF JILL VOVARIS

Q1: Please state your name, title and business address.

A. My name is Jill Vovaris. I am a Senior Professional with Kleinfelder, Inc. (“Kleinfelder”), 230 Executive Drive, Suite 122, Cranberry Township, PA 16066.

Q2: What are your duties as a Senior Professional?

A. Kleinfelder is a provider of consulting, engineering, construction and technical services focused on resource management and infrastructure. In my role at Kleinfelder, I provide consulting services for a broad range of energy projects. That work has included supporting project development from early definition phases, through obtaining licensing approvals, construction oversight, operational compliance support, and transactional due diligence.

Q3: What is your educational and professional background?

A. I have a Bachelor of Science degree in Biology, with a minor in marine ecology from the Pennsylvania State University and a Master of Science degree in Environmental Science and Management from Duquesne University. I have spent three years working for industry and about 15 for consulting firms – PPG Industries as a technical chemist; Mackin Engineering Company, CB&I, APTIM, and now Kleinfelder as an environmental

1 scientist, ecologist, manager of internal engineering and environmental teams, and
2 operations manager. As part of my experience, I have supported a number of industries
3 in technical consulting, including transportation, oil & gas, power, utility, mining, and
4 land development.

5 **Q4: On whose behalf are you testifying?**

6 **A.** I am testifying on behalf of the Applicant, Harrison Power LLC (“HPL”).

7 **Q5: What is the purpose of your testimony?**

8 **A.** The purpose of my testimony is to describe certain studies undertaken, directed,
9 or reviewed by Kleinfelder on behalf of the Applicant and summarize the results of those
10 studies.

11 **Q6: What studies were undertaken on behalf of the Applicant to support the**
12 **Application?**

13 **A.** I am the lead environmental consultant for the Harrison Power LLC Facility
14 (“HPL Facility”), which includes: power generating equipment, an on-site switchyard,
15 and other ancillary facilities (“Generating Facility”); and “Construction Laydown Sites”
16 located south and west of, and adjacent to, the Generating Facility.

17 I am familiar with the full range of environmental assessments completed for the all
18 aspects of the HPL Facility. Written studies and documentation are included in, and
19 attached to, the HPL Facility Application.

1 In addition, the HPL Facility has obtained an air permit from Ohio EPA including air
2 emission modeling. I have reviewed it as well the remainder of the Ohio Power Siting
3 Board application.

4 **Q7: Please describe and summarize the study of wetlands, streams and other waters**
5 **within the project area.**

6 **A.** HPL contracted with APTIM to perform a delineation of wetlands and other
7 waters for the HPL Facility. The initial delineation was performed by APTIM in July
8 2017, and a subsequent delineation comprising both the Generating Facility and modified
9 project footprint was performed directly by Kleinfelder in November 2017 and January
10 2018. In both delineations, wetland areas and other waters, including streams, were
11 delineated on site using methodology enumerated in the United States Army Corps of
12 Engineers (“USACE”) Wetland Delineation Manual (Environmental Laboratory, 1987)
13 (1987 Manual) and the Eastern Mountains and Piedmont Regional Supplement (USACE,
14 2012) (Regional Supplement), as well as the Ohio Rapid Assessment Method (“ORAM”)
15 for wetlands. Headwater Streams were evaluated using the Field Evaluation Manual for
16 Ohio’s Primary Headwater Streams (Ohio EPA, 2012) or Ohio EPA’s Headwater Habitat
17 Evaluation Index as well as the USACE Jurisdictional Determination Form Instruction
18 Guidebook (USACE and USEPA, 2007).

19 Secondary literature sources were reviewed to identify known wetlands and other
20 significant ecological resources and areas with high potential for wetlands in or near the
21 project area. A field inspection was then conducted to identify major plant communities
22 and potential wetlands and other waters. Wetlands and other waters were surveyed using
23 a global positioning system unit as well as aerial photography and topographic figures.

1 The study area for the HPL Facility contains open fields, pasture, and previously mined
2 areas. The Generating Facility area consists of maintained fields. Land surrounding the
3 project area consists of forest with scattered fields and industrial properties. Land within
4 one-quarter mile of the Generating Facility and construction laydown areas is similar in
5 character with fields, rolling meadows, and developed industrial areas.

6 Two small wetlands exist within the Construction Laydown Sites, identified as KLF-
7 Wetland08 and KLF-Wetland09 in the supplemental information modifying the project
8 footprint. These areas will be completely avoided and surrounded by construction
9 fencing to ensure that no impacts occur.

10 Within the Generating Facility Site, there are seven wetlands. Four of these (KLF-
11 Wetland03 to KLF-Wetland06) were classified as a Category 1, being of the lowest
12 quality and generally lacking diversity of plant species or available habitat and having
13 limited potential to perform major wetland functions. Three of these Category 1 wetlands
14 (KLF-Wetland04 to KLF-Wetland06) will be the only wetlands impacted by construction
15 of the HPL Facility. Other wetlands within the study area were KLF-Wetland02, which
16 was classified as a Modified Category 2, which means it has potential to be restored to
17 higher quality but is presently of lower quality or degraded. Also present are two
18 Category 2 wetlands, KLF-Wetland01 and KLF-Wetland07. All of the non-Category 1
19 wetlands present on the HPL Facility Site will be completely avoided.

20 Four ephemeral stream channels were also identified during field investigations in the
21 Generating Facility site, generally along the edge of the property. There are no streams
22 in the Construction Laydown Sites, as revised in the modified project footprint. An

1 ephemeral stream only conveys runoff from a storm event or snow melt, and precipitation
2 is the primary source of water for these streams. Ephemeral streams are permanently
3 located above the water table and most often are dry. The on-site streams are generally
4 small in size and are of low quality. The streams are predominantly headwater streams
5 that have formed as erosion channels. The streams feed the pond on the northern and
6 southern sides, and two of the streams originated toward the eastern edge of the property,
7 continuing east out of the project area boundary. The total length of streams within the
8 area of investigation was 479.94 linear feet. No streams will be impacted by construction
9 or operation of the HPL Facility.

10 The project area was also studied for suitable habitat for state and federal listed species.
11 Agency correspondence confirmed that there are no ecological sites, geologic features,
12 animal assemblages, scenic rivers, state wildlife areas, state natural preserves, state or
13 national parks, state or national forest, national wildlife refuges or other protected natural
14 areas within the project area. No listed species were observed and most of the project
15 area habitat is not suitable for listed species.

16 In my opinion, based on my experience and the results of the studies conducted by HPL,
17 the ecological impact of the HPL Facility and Construction Laydown Sites will be minimal.

18 **Q8: Did HPL conduct a noise survey and, if so, what was the result of the survey?**

19 **A.** Yes. HPL contracted with CB&I to complete a Noise Survey for the HPL
20 Facility. The study involved documenting the baseline acoustic environment, then
21 modeling the impacts of mitigated construction and operational sounds using state of the
22 art equipment and industry standards. Ambient sound levels surrounding the facility site

1 were representative of sound sources within their area-specific environment and ranged
2 from 42 dBA to 68 dBA.

3 Construction of the HPL Facility is expected to be typical of other power generating
4 facilities. Construction sound levels are predicted to range from 32 to 58 dBA. Due to
5 the temporary nature of the construction noise, and reasonable mitigation efforts, no
6 adverse or long-term effects are expected. Although 50 dBA is an oft-used standard at
7 residential receivers, the project uses a more conservative exterior noise level design goal
8 of lowest ambient noise level + 5 dBA at the nearest non-participating residences during
9 full load normal operation. Noise levels at all residences are expected to be well below
10 the design goal, and will be no higher than 48 dBA, which is still below the commonly
11 used 50 dBA goal. At the location with a projected noise level of 48 dBA, the lowest
12 ambient noise level measured was 60 dBA, meaning that the predicted sound level at that
13 location was still well within the design goal of ambient + 5 dBA.

14 Based on my experience, which includes work on many other generation facilities,
15 operational noise from the HPL Facility should pose minimal impact on surrounding
16 residences and will be properly mitigated as presented in the application.

17 **Q9: Please summarize the air modeling undertaken for the HPL Facility.**

18 **A.** As noted in the Application, atmospheric dispersion modeling was performed to
19 predict maximum concentrations of air emissions as a result of operating the HPL
20 Facility over a range of operating conditions. The modeling confirmed that the HPL
21 Facility impacts will be lower than all NAAQS and Prevention of Significant Deterioration
22 (“PSD”) Increments imposed by the Federal Clean Air Act and the USEPA.

1 The air quality dispersion model accounts for emission rates, stack heights, exhaust
2 parameters, meteorological conditions (wind speed, direction, atmospheric stability, and
3 temperature), the topography around the HPL Facility, and proposed building dimensions.

4 The air pollution controls proposed for the Generation Facility are proven technologies that
5 are considered Best Available Control Technologies as defined by the 1990 Amendments
6 to the Clean Air Act and Best Available Technology by the Ohio Environmental
7 Protection Agency (“Ohio EPA”) (Ohio Administrative Code Rule 3745-31-01(T)). In
8 addition, emissions from the Generation Facility will be continuously tracked using a
9 Continuous Emissions Monitoring System.

10 **Q10: Please describe and summarize the cultural resources at the HPL Facility.**

11 **A.** A Phase I Archaeological Survey was not required for the HPL Facility because
12 the proposed construction activities take place within a reclaimed strip mine; therefore,
13 there was no probability for finding intact archaeological resources within the boundaries
14 of the project area.

15 Cultural resource investigations began with a literature search, including an examination
16 of historic mapping along with files at the Ohio State Cultural Resource GIS Data Base,
17 including the Ohio Archaeological Inventory (OAI) forms, Ohio Historic Inventory
18 (OHI) forms, National Register of Historic Places (NRHP) files, and National Historic
19 Landmarks (NHL) list. There are no formally adopted land and water recreation areas,
20 recreational trails, scenic rivers, scenic routes or byways within five miles of the Facility.

21 No impacts are anticipated as a result of the proposed facility on any landmarks, and
22 therefore no plans to avoid or mitigate any adverse impacts are required. A Section 106

1 Project Summary Form was submitted to the OHC by APTIM on February 7, 2017
2 (Appendix F to the HPL Facility Application). In a letter dated March 21, 2017, the
3 OHC responded and indicated the proposed undertaking will not affect properties listed
4 on or eligible for the National Register of Historic Places and no further work would be
5 required.

6 **Q11: Have you reviewed the March 21, 2018 Staff Report of Investigation issued in this**
7 **proceeding?**

8 A. Yes.

9 **Q12: Do you have observations or responses to any of the conditions listed in the Staff**
10 **Reports of Investigation?**

11 A. Not from an environmental or ecological perspective. The HPL Facility is well-
12 sited in an existing industrial area, taking advantage of open land to minimize the need
13 for clearing, avoid and minimize wetland and stream impacts, and to avoid impacts to
14 threatened or endangered species or significant cultural resources. The HPL Facility has
15 also been designed to meet air quality standards, incorporate significant noise attenuation,
16 and limit impacts within Harrison County.

17 **Q13: Does this conclude your direct testimony?**

18 A. Yes, it does. However, I reserve the right to offer testimony in support of any
19 stipulation reached in this case.

CERTIFICATE OF SERVICE

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 30th day of April 2018.

/s/ MacDonald W. Taylor

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Case No(s). 17-1189-EL-BGN

Summary: Testimony of Jill Vovaris for Applicant Harrison Power LLC electronically filed by Mr. MacDonald W Taylor on behalf of Harrison Power LLC