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INDIANA UTILITY
REGULATORY COMMISSION

NOISE REGULATION REVIEW

B&V PROJECT NO. 406529
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PREPARED FOR

CenterPoint Energy

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Executive Summary

Black & Veatch reviewed the noise regulations that might apply to the new Simple Cycle Power Plant (SCPP).

The A. B. Brown Simple Cycle Plant will be located near Mount Vernon, Indiana, in Posey County and will be constructed on the existing A.B. Brown Plant site. The nominal 473 MW net natural gas fired simple-cycle power plant will consist of two F-Class Combustion Turbines in a 2x0 configuration. The EPC Contractors scope of work includes the design, engineering, procurement, construction, construction management, commissioning, operator training, demonstration, and testing of the project.

Indiana, Posey County, and Marrs Township have no far field noise regulation or ordinances. Far field noise requirements are generally referenced to the site boundary, property line, or other boundary limit. Occupational Safety and Health Administration (OSHA) standards will apply to near field noise emissions. Near field noise requirements are measured along the equipment envelope. During off-normal and intermittent operation such as startup, shutdown, and upset conditions, the equipment sound pressure level shall not exceed a maximum of 115 dBA at all locations along the equipment envelope, including platform areas, that are normally accessible by personnel.

Near field noise mitigation requirements will be required of equipment. Since there were no extant noise regulations specific to this site, no far field noise mitigation is required.

1.0 Results of Noise Regulation Review

Noise requirements fall into two categories: far field or near field. These categories are based upon the distance from the emitter to the receptor. Far field noise requirements are generally referenced to the site boundary, property line, or other boundary limit. Near field noise requirements are measured along the equipment envelope. The envelope is defined as the perimeter line that completely encompasses the equipment package a distance of 3 feet from the face of the equipment.

1.1 FAR FIELD NOISE REQUIREMENTS

There are no extant noise regulations or ordinances for Indiana, Posey County, or Marris Township. The expectation would be that the general environmental sound levels in the surrounding area would not be substantially different from the sound levels with the two coal units in operation, assuming the coal units will be decommissioned after the new units are operational.

1.2 NEAR FIELD NOISE REQUIREMENTS

Near field noise requirements are limited by OSHA requirements. The near-field noise emissions for each equipment component furnished under these specifications shall not exceed a spatially-averaged free-field A-weighted sound pressure level of 85 dBA (referenced to 20 micropascals) measured along the equipment envelope at a height of 5 feet above floor/ground level and any personnel platform during normal operation.

During off-normal and intermittent operation such as start-up, shut-down, and upset conditions the equipment sound pressure level shall not exceed a maximum of 115 dBA at all locations along the equipment envelope, including platform areas, that are normally accessible by personnel.

2.0 Conclusions

Near field noise mitigation requirements will be required of equipment. Since there were no extant noise regulations specific to this site, no far field noise mitigation is required.

Since there were no extant noise regulations specific to this site, the near field requirements should conform to OSHA limits.