

Delaware Department of Transportation

QUESTIONS AND ANSWERS

T201453103.01

BEECH STREET GENERATORS, NEW CASTLE COUNTY

Friday, April 01, 2016

Q #	Question	Answer
10	Drawing E5-04 calls out (1) 1000amp main generator circuit breaker feeding (3) 600amp breakers inside the generator enclosure. Is it acceptable to omit the 1000 amp main breaker and directly mount the (3) 600 amp breakers on the generator? There may not be room inside the generator enclosure to mount a panel to house (3) 600 amp breakers fed by a single main breaker on the generator.	The proposed arrangement is acceptable.

Wednesday, March 30, 2016

9	All drawings indicate to provide 600kW/750kVA generator but DRAWING E504 indicates a 660kW. Please provide clarification	The Drawing E504 reference to a 660kW generator is a typo. The referenced generator is meant to be the 600kW.
8	Will there be time to visit the site and have access to the substations and Electric rooms containing the MCC's?	The site can be visited. Please contact Mr. John Kotula at 302-576-6093 to schedule a visit.

Thursday, March 24, 2016

7	Where can I find or What are the Standard insurance requirements for contract# T201330009.01. They are not listed in the Proposal documents.	Delaware law requires contractors to provide 'adequate' insurance.
6	We need to know the distance from where the generator will be placed to the property line in order to meet the 75dBA sound enclosure for the generator.	The distance from the proposed generator placement and the nearest property line is 100 feet.

Friday, March 18, 2016

5	Drawings: Confirming there is 1-1000amp transfer switch needed for Bldg 15 (per Drawing E-502) and 3-800amp transfer switches needed for Bldg 16 (per Drawing E-504) also listed on Drawing E-100. Drawing E-302 lists 3-800amp ATS; are these ATS part of the MCC? If so, who would be responsible to provide these switches: the vendor providing the MCC?	The MCCs are existing, inside the building. The ATSs are outside and are connected to feeders in Substation #3 which ultimately feed the MCCs as shown on Sheet E-504.
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	Drawing E-301 lists 1-1000amp ATS; is this ATS part of the MCC? If so, who would be responsible to provide this switch; the vendor providing the MCC?	The ATS is new and should be connected to the existing MCC as shown on Sheet E-502.
	Drawing E-301 provides a detail list of components to be provided within the generator enclosure. Provide clarification to a 'PNL G15' noted #3. This power panel, is this the same as a load center/panel board? If so, please provide amperage and voltage of this panel.	"PNL G15" is for all of the additional connected loads for operating the generator including Battery Charger and Heater, Control Panel Heater, Jacket Water Heaters, and ATS Heater as indicated on Sheet E-301. Load and amperage shall be determined by the manufacturer based on loads of the connected components.
5	Drawing E-301 provides a detail list of components to be provided within the generator enclosure. Provide clarification to the 'For Gen. CP Heater'. Please provide clarification as the CP Heater. What does 'CP' refer to. <input type="checkbox"/>	The 'CP' stands for Control Panel.
	Drawing E-302 provides a detail list of components to be provided within the generator enclosure. Provide clarification to a 'PNL G15' noted #3. This power panel, is this the same as a load center/panel board? If so, please provide amperage and voltage of this panel.	This is actually "PNL G16" on this sheet and serves the same function as PNL G15 on the other generator.
	Drawing E-302 provides a detail list of components to be provided within the generator enclosure. Provide clarification to the 'For Gen. CP Heater'. Please provide clarification as the CP Heater. What does 'CP' refer to.	The 'CP' stands for Control Panel.
	Drawing E-301 provides a detail list of components to be provided within the generator enclosure. Indicates to provide a 'Gen Battery Heater'. Battery heaters are not recommended.	Because batteries should be kept at approximately 70 degrees for optimal reliability, and because generators are to be installed outside, battery heaters are required for winter conditions.

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4	<p>Written Specification Transfer Switches 1.2.B.3. verbiage indicates bypass/isolation switch. Is bypass/isolation switch necessary for this application? No other verbiage within the specification lists bypass/isolation.</p>	The bypass / isolation switch is required.
	2.1. L. indicates NEMA 4X. Confirming this ATS is located outdoor.	The ATS is located outdoors per sheet E-100.
	2.2 A. provides a list of accepted manufacturers. Kohler has provided many transfer switch/es for the State of Delaware and various offices. Accept Kohler as a listed manufacturer.	Specification shall be revised. Refer to Addendum #1.
3	<p>Written Specifications Engine Generator 1.4., B. refers to seismic certification. Does this site warrant the equipment to be seismic certified?</p>	Seismic certification is not required.
	2.1. A. provides a list of accepted manufacturers. Kohler has provided many generators for the State of Delaware and various offices. Accept Kohler as a listed manufacturer.	Specification shall be revised. Refer to Addendum #1.
	2.4. I. 4. Indicates NiCad batteries. Are NiCad batteries necessary?: 1) very expensive, 2) very difficult to dispose, 3) needing to be maintained on a regular basis. Accept lead acid battery/ies.	Lead acid batteries will be acceptable
	2.9 references Load Bank. No mention of a load bank on the drawings. Is a Load Bank needed for this project? If so, the listed scope indicates this load bank to be radiator mounted on the generator; however, there is also verbiage to provide NEMA 3R. Please advise radiator mounted or freestanding. Provide the kW and voltage of this load bank.	Load bank is required and may be either generator mounted or freestanding. NEMA 3R is required unless mounted inside generator enclosure then may be NEMA 1. Size the load bank for 35% of the generator rating.
2.10 refers to an outdoor generator enclosure; indicates to provide sound attenuation. There is no sound dBA level listed. Accept Kohler 76dBA as a sound rating.	The dBA level for a Level 1 sound enclosure is 75 dBA measured at the property line.	

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	2.10.2. indicate automatic dampers on the enclosure. Standard sound attenuated enclosures do not provide automatic dampers. When placing automatic dampers on this size factory enclosure; the enclosure would be considered 'custom' and increases the cost of the equipment.	Automatic dampers may be omitted.
3	2.11. B. indicates spring isolators. Accept integral vibration isolation which eliminates the need for under-unit vibration spring isolators. These integral vibration isolators are located between the engine & the skid. Spring isolators between the concrete pad and fuel tank is not recommended by manufacturers	Integral vibration isolation is acceptable in lieu of spring isolators
2	Please accept remote-mounted load bank as acceptable under Specification Section Engine Generators – 2.9B. Remote mounted units eliminate airflow restriction across the radiator and cooling fan.	Remote-mounted load bank shall be acceptable.
1	Please include Generac Power Systems as an acceptable manufacturer under Specification Section Engine Generators - 2.1A Manufacturers.	Specification shall be revised. Refer to Addendum #1.