

BIDDER QUESTIONS

The following questions were received during the Pre-bid site walkthrough at Detroit Diesel, followed by responses provided to present clarification to the bidders.

Question #1: Is there a specific company DDC wants the contractor to use for roof work?

Response #1: Royal Roofing must be used for roof work to maintain warranty.

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Contact: Joe Davis**

Question #2: Where is the Plant Operations panel located to tie in the Dust collector network connection (Modbus TCP)?

Response #2: While the dust collectors are being supplied with an optional Modbus TCP communication module, connecting the dust collectors to the nearest network panel has been removed from this project.

Question #3: Bidders asked for clarification on Dust collector grounding (underground, depth, etc.)?

Response #3: Ghafari has updated & added clarifications to the grounding layout drawing DE1-01-02.

Question #4: Does the internal dust collector inspection light get powered by the main control panel?

Response #4: No. The 110Vac power will come from the same lighting circuit for exterior dust collector lights. See bid drawing DE4-00-01 for details.

Question #5: Can concrete barriers be used to create a barrier between the truck traffic?

Response #5: Include supply of concrete barriers to be placed around the area of work for both dust collectors.

Question #6: Is Donaldson supplying the 480V field disconnects for their equipment?

Response #6: The dust collector main control panel comes with a 480Vac main disconnect (flange mounted). The contractors will need to provide field disconnects for the following equipment:

- Main Blower (50/60 Hp)
- PD Pump (5 Hp)
- Rotary Airlock (1 Hp)
- Manifold Drive (1/3 Hp)
- Lime Injection Motor (3 Hp Max.)

Question #7: Does the contractor have to make any modifications to the substation cubicle (C1) before installing the feeder breaker?

Response #7: No. Substation feeder breaker will be installed in cubical 1C by DDC. Also, coring the floor in the substation should take place on a Saturday. Coordinate with owner representative.

Question #8: Where is the powder feed hopper / lime injection equipment being installed.

Response #8: The lime injection equipment is located at the end of the duct runs (farthest point from the dust collector). See bid drawing DE1-01-01 for the general area where the equipment will be located.

Question #9: How does the powder feed hopper / lime injection equipment tie into the ductwork. Does all the equipment come pre-mounted on a skid or are there multiple pieces of equipment that need to be installed.

Response #9: Attached is a general arrangement drawing that can hopefully help. Basically, the difference from this to what you will get is the top lid will be for manual loading where you open and fill. And we will have a stand so that you can put 5" or 6" diameter pipe underneath to draw the material in the pipe. You can reduce to 4" to go to your main exhaust duct header. The 5" or 6" TEE or elbow would be open and not connected to the feeder (null fitting so we are pulling plant air as its feeding into the pipe. Once fed in pipe reduce to 4" diameter and send to main exhaust duct. This system needs to be indoors. Each unit will require a 1/2" compressed air line for the pneumatic vibrator operation.

Question #10: Is DDC providing the two new air pumps on DX1-01-01.

Response #10: Yes, DDC is purchasing them from Torit/Donaldson and the contractor is installing them outside the building as shown on the bid drawings. Reference drawings were included with the bid documents.

Question #11: The drawings indicate leaving extra cable for future sub replacement, how much extra length is required.

Response #11: 10'-0" of extra cable is required.

Question #12: In both mezzanine areas they show a 3 HP lime injection system. What are the power requirements and where are they being fed from.

Response #12: The Lime Feeder system requires 480Vac fed from the dust collector MCP.

Question #13: In both mezzanine areas they refer to new powder feed hoppers. What are the power requirements and where are they being fed from.

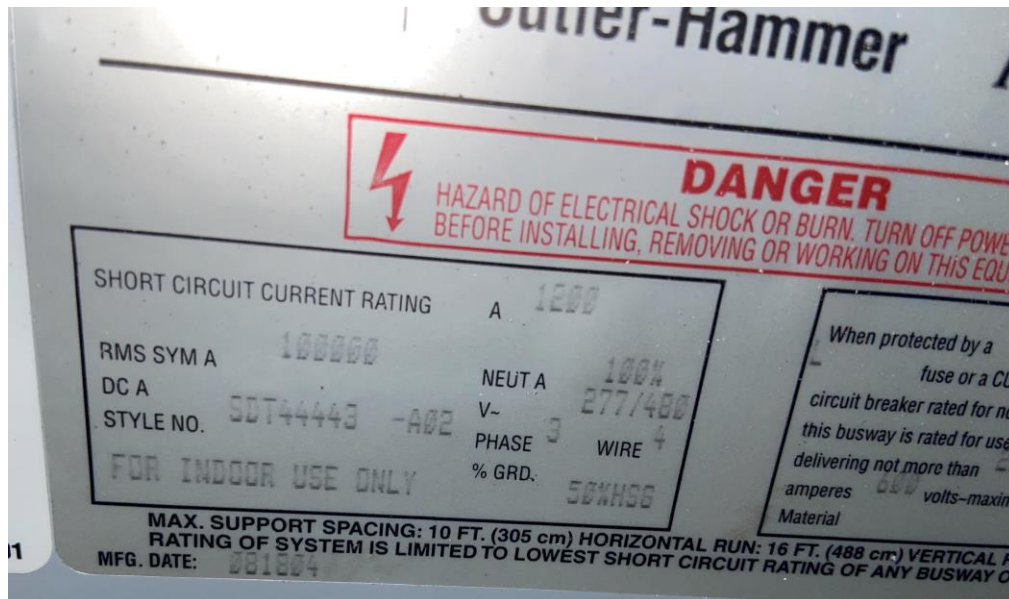
Response #13: The lime injection system and the powder feed hoppers are one in the same. See response above for question #12.

Question #14: Even though the one-line shows the bus being fed by 3 wires, it was determined that it will be fed by a 4-wire system, does that extend to the new extractors as well. They show they are being fed by a 3-wire 200 AMP bus plug from the bus duct, is that supposed to be 4-wire as well.

Response #14: The dust collector MCP requires 480Vac power (3-wires + gnd) from the new bus plug. See bid drawing DE6-00-02 for additional information.

Question #15: Can you confirm the owner/client is not buying the center tap box, end caps and bus plugs with the busway. Typically, all these items are purchased at the same time from the same vendor, as all the pieces are needed together.

Response #15: The owner has (5) 10' sections of busway (Cutler Hammer POW-R-WAY III, 3P, 4-wire). Each busway section has coupling/connector. Refer to attached picture of busway tag for additional details. The contractor will need to provide a center tap box, required connectors, end caps, bus plugs, hangers, sway bracing, etc. for a complete working busway.



Question #16: Can we get pictures of the bus ducts that are being supplied, specifically nameplate, so that we can be sure to get the right center tap box and couplings.

Response #16: See response to previous question #15.

Question #17: All pipe runs should be rigid metallic conduit or is EMT permitted above 10' in the plant.

Response #17: EMT conduit is not allowed. All conduit is to be rigid galvanized steel.

Question #18: Are the receptacles and inspection lights that are shown on the new units installed at the factory or are we to provide those as part of our bid package.

Response #18: The exterior lights and receptacles are not factory installed. The contractor needs to provide the equipment and installation in their proposal.

Question #19: Is the dry system for the dust collectors a dry system sprinkler with a dry sprinkler valve or is it an open system in case of fire with a manual valve. We typically install these types of systems as an open in case of fire with a manual valve.

Response #19: The dry system should have an automatic dry sprinkler valve.

Question #20: Please confirm that the sprinkler protection is for the duct collectors only and not also for the exhaust ductwork. It appears the existing ductwork is not protected

Response #20: The new FP is for the dust collectors only not for the existing exhaust ductwork.

Question #21: Are the electrical contractors slated to completely demo the existing exhaust fan feeders in the cable tray on the roof.

Response #21: No. This is not part of the project.

Question #22: Please clarify the scope of work for the two lime injection systems (3 HP) drawings attached.

Response #22: Please see the response to question # 9.

Question #23: Please clarify the scope of work pertaining to the "Coperion K-Tron Screw Feeder.

Response #23: The lime injection and the Coperion system are one in the same.

Question #24: Are there any classified, explosion proof areas for the exhaust system.

Response #24: No.

Question #25: Is there an approved flexible connector manufacturer.

Response #25: Flexible connections on the inlet and discharge of the exhaust fans are being provided with the fans.

Question #26: Is there an approved air bleed damper manufacturer or detail on construction.

Response #26: Pressure relief dampers can be purchased from Ruskin type PDR 92.

Question #27: Is there an approved duct gasket type/material.

Response #27: TFCO Industries Expanded PTFE joint sealant, gasket tape or Owner approved equal.

Question #28: It was stated in the RFP and verbally that DDC will provide (5) 10' pieces of bus duct for installation on this project. The contractor is responsible for providing supports, couplings, center tap box, new bus plugs, and end closures. Please confirm.

Response #28: Please see the response to question # 15.

Question #29: The substation breaker is being repaired currently but will be delivered back to the substation for sub-contractor installation and wiring. Arc flash study, setting, and labels are to be by the sub-contractor as performed by Shermco. Please confirm.

Response #29: The feeder breaker will be installed by DDC. Breaker setup and arc flash labeling will be subcontracted to Shermco.

Question #30: Drawing DE4-00-01 indicates the location of lighting and receptacles on the new dust collector for test cells 73-84; it was stated that the towers for the test cells 101-114 would require the same layout and quantity, please confirm.

Response #30: Yes, that is correct both units will require the same items.

Question #31: Please provide mounting details including acceptable support hangers and AFF mounting height for Busway M1 1N-1C.

Response #31: Mount busway approximately 20'-0" AFF. Contractor must verify routing with the plant representative before starting any work. Rework any existing hangers that interferes with the busway (field verify). For bidding purposes, the contractor should include standard hangers, braces, etc. for busway installation.

Question #32: Please provide an approximate timeframe for the electrical work to begin and an anticipated completion date for the project.

Response #32: The Electrical contractor can begin work when they receive their PO. Project to be completed by end of 2025.

Question #33: Please provide schematic and wiring diagram information regarding the MCP for each dust collector. Please clarify who is installing the MCP for each dust collector.

Response #33: See MCP submittals 241709-1-R00-HFA and 241709-2-R00-HFA. The contractor is responsible to install and wire all control panels and field devices associated with the dust collectors.

Question #34: Please provide acceptable methods for new grounding wires to enter the building for connection to the existing building steel (PVC, GRC, etc.).

Response #34: Schedule 80 PVC.

Question #35: Is it acceptable for electrical conduits to directly feed from the building or will they need to be routed underground and up the support structure of the collector towers.

Response #35: The conduits can be run directly from the building. Routing of the conduits must not create a trip hazard or restrict access to any equipment. Run the conduits up high out of the building for pedestrians to walk under without hitting their head. Approx 7'-0" above finished grade. Provide Unistrut support as necessary (independent from the dust collector system).

Question #36: Please verify if the companion rings and stiffeners for the ductwork and stacks must be stainless steel or black iron and painted. They are not in the airstream, and I do not see this clarified anywhere

Response #36: Companion rings and stiffeners shall also be stainless steel to match the duct materials of construction.

Question #37: Fan balancing validation, since the major components are being furnished by the Owner, please confirm they are also responsible for fan balancing validation.

Response #37: The Owner is responsible for fan balancing validation.

Question #38: Are we responsible for installing the bags inside each dust collector? Or is this task being provided by the Owner? If this responsibility falls on the contractor, please provide installation drawings and details.

Response #38: The Contractor is responsible for installing the bags inside each dust collector. Please find attached the OEM installation manual for your reference

Question #39: Does the installation of the bag filters require a Confined Space Rescue Team / For bag installation.

Response #39: No. A confined space permit must be signed by plant security and there must be an attendant.

Question #40: How Many truckloads of equipment can we expect to receive and off-load.

Response #40: Four truckloads of equipment are expected. Each dust collector will come on a flat or step deck truck and one - two trucks for ancillary parts and filter cages.

Question #41: What kind of grout is needed / Cementitious or epoxy.

Response #41: Please use Epoxy grout.

Question #42: Please confirm the Owner will be supplying the VFD's for the Exhaust Fan Motors.

Response #42: The main blower VFD is located in the dust collector MCP.

Question #43: Please confirm who is providing the (2) Motor Starters for the Lime Injection Systems (3HP) shown on DE1-01-01.

Response #43: The Lime injection system motor starter is located in the dust collector MCP.

Question #44: Please provide cable specification for cable in tray from substation breaker to busway tap box. (standard tray cable, armored cable etc.)

Response #44: IAC – Interlocked Armored Cable.

Question #45: Please confirm the timeframe that we are to include for Change Over.

Response #45: Change over includes final demo and tying of two new systems into the existing test cell exhaust, assume one day. Additional time should be included for startup, debug, and standby. See notes 1.3.8. and 1.3.9. in the technical specifications for more information. A plant shutdown is tentatively planned for December 24th - January 2nd.

Question #46: Please confirm the anticipated delivery date of the Owner-provided equipment.

Response #46: Anticipated delivery date is calendar week 43.

Question #47: Please confirm that the support steel, anchor bolts, safety yellow platform and ladders with safety cage are an engineered system being provided by the equipment vendor. If they are not, please provide detailed scope of work, to include fabrication drawings, specifications, finish specifications, etc.

Response #47: Yes, the dust collector supplier is furnishing the complete units with all the items mentioned above.

Question #48: Will the Dust Collector controller have an internal disconnect for the motor or should the electrical contractor plan on furnishing and installing a NEMA 3R NF disconnect at the motors.

Response #48: Please see the response to question # 6.

Question #49: Please confirm who is providing the anchor bolts and their associated template. If provided by the contractor, please provide the template, specifications, etc., for them.

Response #49: The contractor is responsible for the complete exhaust stack design, including the anchor bolts. Stamped fabrication drawings shall be submitted for review/approval prior to fabrication and installation of the exhaust stacks. The dust collector anchor bolts need to be furnished and installed by this Contractor.

Question #50: Please provide an area map or sketch showing the maximum extents being allowed for construction for each of the two exterior locations.

Response #50: Areas of approximately 25'x60' are available for construction in each location. Construction must not impede the roadway or M11 ramp.



Question #51: Is there an Electrical DWG/One-Line to show the wiring between the dust collector panels and the field located motors and devices (Work Items 7.2.3 & 7.2.4)? If so, can you please provide.

Response #51: See MCP submittals 241709-1-R00-HFA and 241709-2-R00-HFA.

Question #52: Can you please confirm the tentative start date for this project.

Response #52: Work can begin as soon as a PO is received. Owner-provided equipment is expected to arrive late October. To limit mobilizations, tentatively plan to start in October. Ductwork cleaning must occur over a production shutdown, with an opportunity between July 7th-11th.

Question #53: Please confirm when the owner-provided busway will be available for installation.

Response #53: The owner provided busway is onsite. Contractor can install at their convenience when the contractor has the necessary busway parts for a complete system.