

## **Department of Procurement Services**

160 South Hollywood Street · Room 126 · Memphis, TN 38112 · (901) 416-5376

October 7, 2022

RE: Questions and Answers: IFB#10122022CLB COE & Barnes Cooling Tower Replacements

1. Will the cooling tower VFD's be required to be mounted at the cooling tower on the roof in an weatherproof enclosure.

VFDs should be nema-3R suitable for outside insulation

2. Will these cooling towers have redundant fans and require alternating contactors?

Some of our previous cooling tower projects have had multiple modules and fans. If so, here is what we have done on some of the projects. If the tower for the COE has 2 modules. Each module has two fans, so we have a total of 4 fans. Each VFD controls 1 module or 2 fans. So, we have two VFDs for the cooling towers. Also, the design guide states to have a spare VFD per-Modula. Therefore, this brings it up to a total of four VFDs. The EMS system will bring in a signal to lead lag based on run time. How it's wired is up to the winning contractor and his sub- electrician and control contractor. If using a single tower with one fan than you use one VFD with a spare that's wired the same way.

Thank you, Procurement Services