Issue Date: Sept 27, 2020

Technical Service Bulletin

COMPLIANCE: **ADVISORY**

SUBJECT: **REDUCED IONIZATION DUE TO COIL CONDITION OR DESIGN**

AFFECTED UNITS: **GPS-iMOD® UNITS**

DESCRIPTION:

The GPS-iMOD was designed for mounting to cooling coil inlets using magnets or sheet metal screws. Sometimes there are situations where the ion densities downstream of the coil are lower than expected, even though the ion output from the GPS-iMOD is at the designed level.

POTENTIAL ROOT CAUSES

1. There is a significant buildup of biofilm, debris/dirt, or excessive corrosion deposits because the coil has not been properly maintained or cleaned.
2. The coil is very thick, typically over six (6) rows deep.
3. The coil has a high fin density to maximize heat transfer.
4. Air flow through the coil is less than 500 feet per minute.

RESULT

The above conditions can result in lower than expected ion densities downstream of the coil. A higher proportion of the ions may be consumed in cleaning the coil (e.g. biofilm) or absorbed by the volume of coil core itself due to thickness, density, or low airflow velocity.

SOLUTION

1. Place the GPS-iMOD bar downstream of the coil to maximize the ion density to the space being treated. When placing the GPS-iMOD bar immediately after the coil (wet side), use a mounting bracket to prevent moisture from interacting with the bar (example in separate TSB).
2. If both coil cleaning and maximizing ion density in the occupied space are desired, consider placing a GPS-iMOD bar both prior to the coil and after the coil. If a GPS-iMOD bar cannot be located on the downstream side of the coil, consider installing a GPS-DM48-AC™ in the ductwork downstream of the coil prior to any branches in the ductwork.

Note:

- Ensure that the mounting bracket is grounded to the GPS-iMOD power supply
- The clearance between the GPS-iMOD bar wall and the bracket should be no smaller than 1/8" and no larger than 1/2".

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