

Impact of Fan/Filter Usage on Particle Counts

ROCIS Low-Cost Monitoring Project, October 2015



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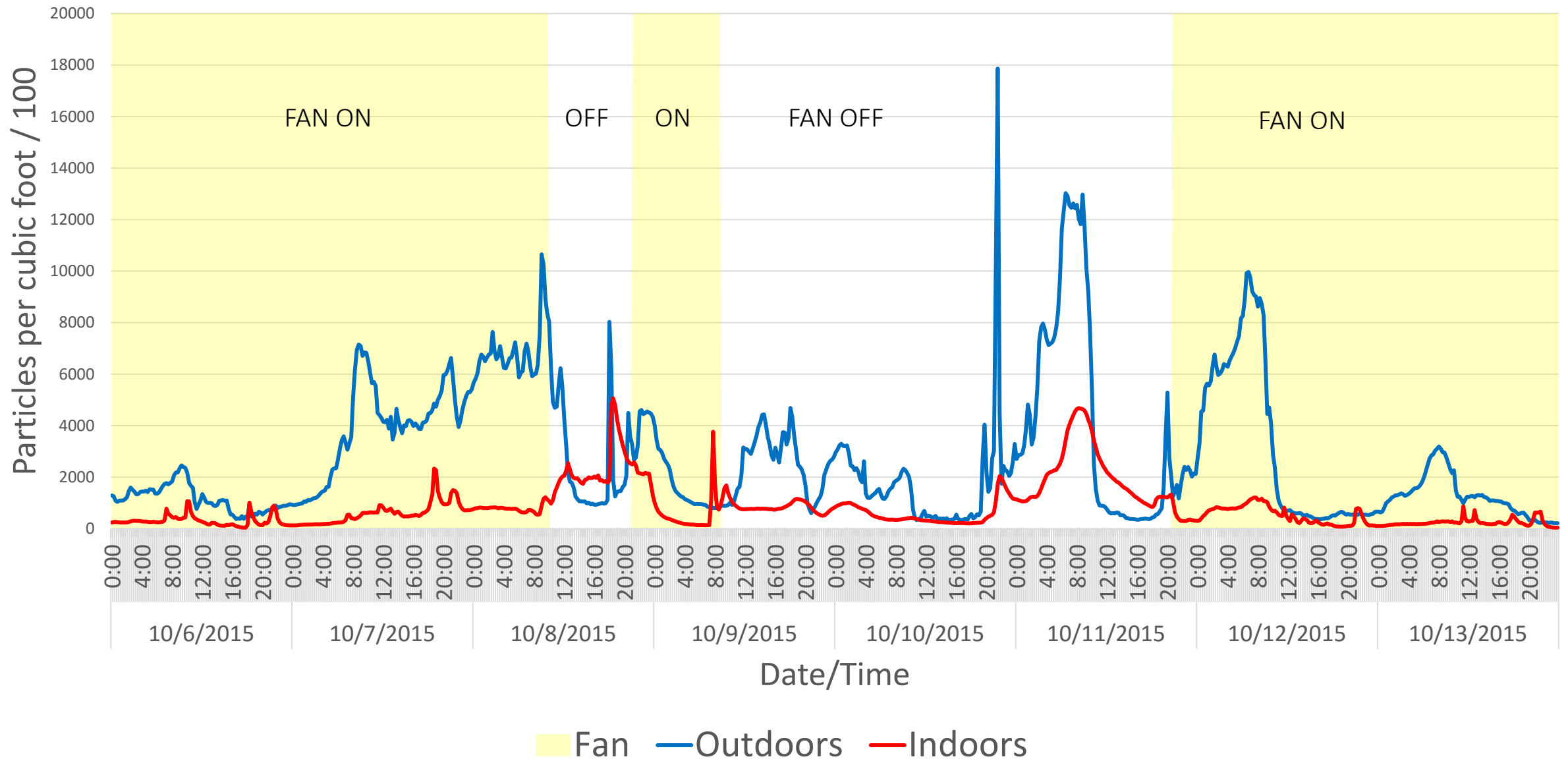


- Shadyside (urban area)
- Built 1909
- Brick w/ vinyl windows

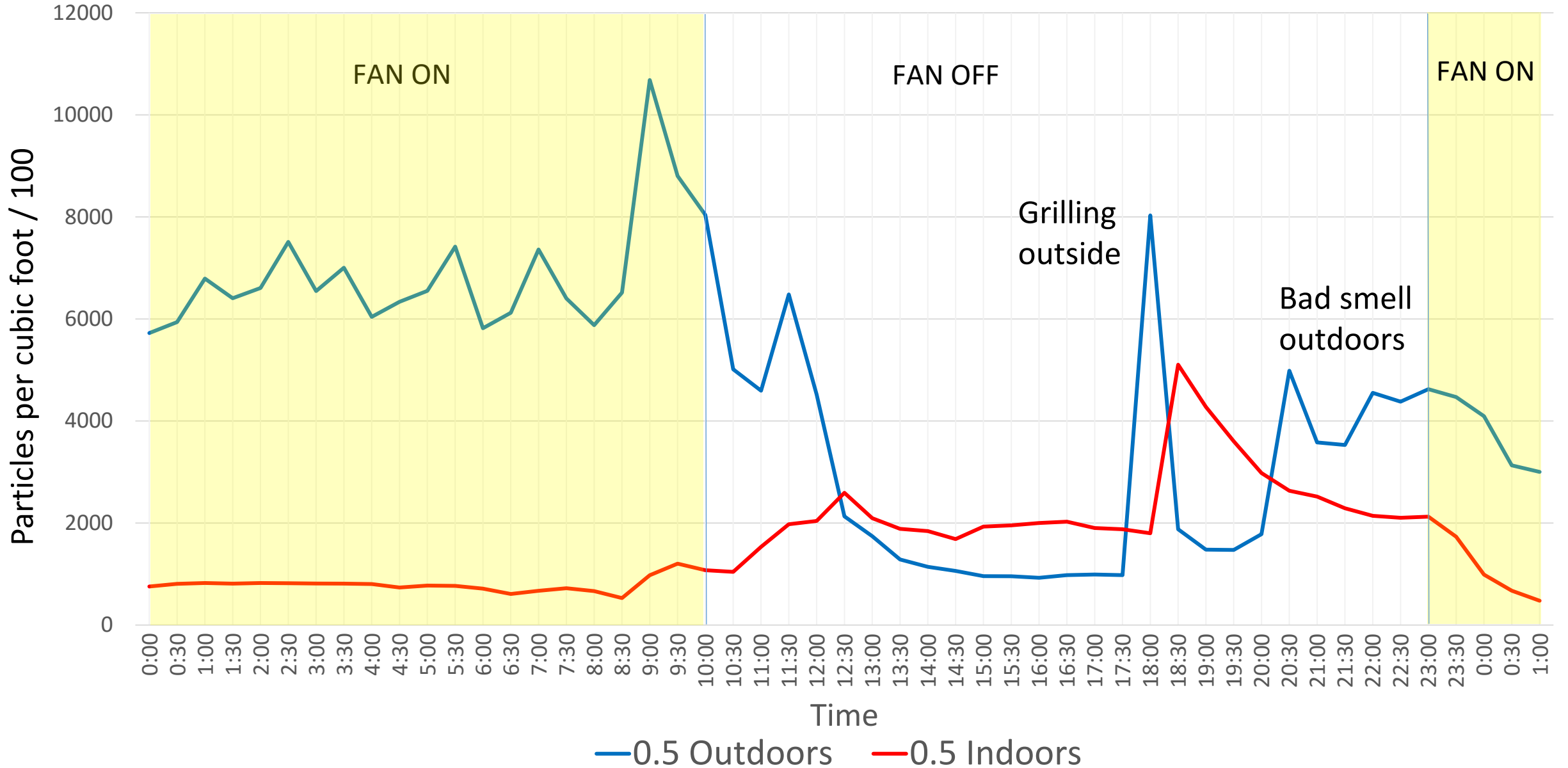


- House has radiator heat, ducted A/C
- Filter on fan unit – Aprilaire Air Cleaner 2200
- MERV 10 filter, \$25 (upgrade to MERV 13 possible)

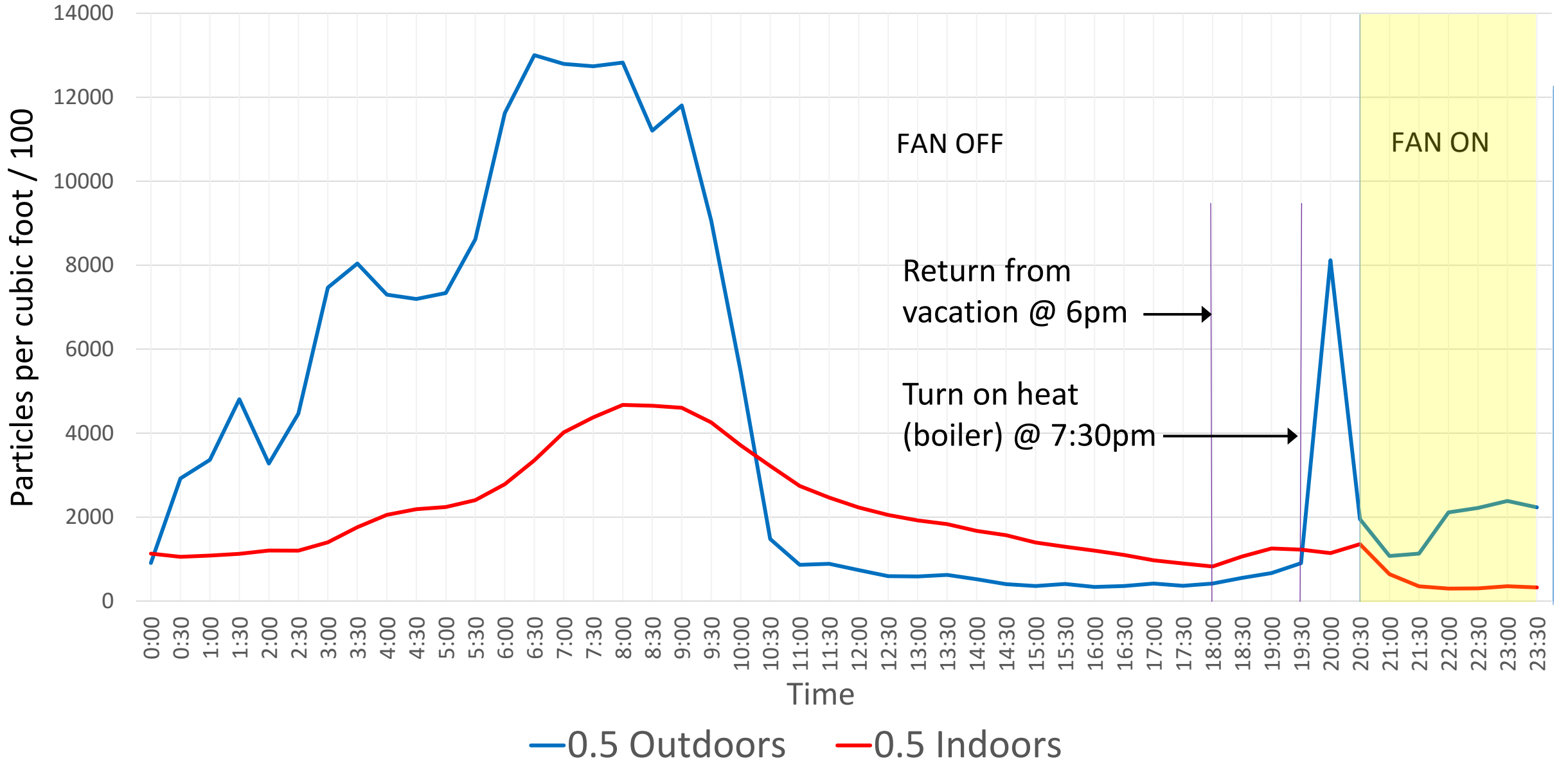
Dylos Small Particle (0.5 μ +) Counts



10/8/15: Dylos Small Particle (0.5 μ +) Counts



10/11/15: Dylos Small Particle (0.5 μ +) Counts



Conclusions

- Continuous use of fan/filter lowers indoor small particle counts
- Particle counts return to “normal” more quickly after spikes from cooking, etc.
- A filter on the mechanical system is beneficial for air cleaning only when the system/fan is on.



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