

## Summary

The purpose of this visit to Freddy's in Enid, OK was to address smoke capture concerns within the kitchen.

Upon initial inspection smoke capture was poor on both the fryer and main griddle hood.

Findings and recommendations are below

1. MUA is not getting any power to the motor. No air flow is going through the back supply plenum on the hood which can cause hood capture issues.
2. Grease duct is clogged with grease build up in the fans and is restricting air flow to the fans. Both griddle fans are low on air flow. Recommended to fully clean grease ductwork, kitchen exhaust fans, and hood filters in order for unrestricted airflow.
3. Full end panel needs to be installed on the right side of griddle hood. A quarter end panel needs to be added to the left of the griddle hood.
4. The fryer hood capture is poor as well. There is a large amount of smoke escaping primarily on the left side but also on the right side. The griddle hood is the primary concern as that is what causes grease to accumulate on the return grilles and surfaces. But improving the fryer capture will reduce fry smell, and improve comfort in the building. Ideally, full vertical end panels would be added, but if that's not possible from an operational standpoint then quarter end panels should be added on both sides.
5. Kitchen RTU is currently not functional. Unit is getting power to it however control board for unit has gone bad. Recommended to replace control board in order for unit to properly run.
6. RTU2 and RTU3 are both low with final filters installed. Final filters are extremely dirty. The last time they were replaced was in 2021. Once they are removed unit goes within design air flow, however, is still on the low side of design due to the clogged evaporator coils inside the unit. Recommended to replace final filters and clean evaporator coils.

## Technical Summary

Once I arrived on site I noticed grease accumulation on ceiling tiles in the kitchen. During operation hoods were not capturing smoke correctly and was exiting right side of main griddle hood. Fryer hood had smoke exiting out of left side of hood. A smoke test was done on each hood with about 70% smoke capture for each hood. All hoods were initially low on air flow. The kitchen exhaust fans were turned to the max setting without overamping the motor. However Both griddle exhaust fans still did not come within design air flow tolerance. Grease ductwork, exhaust fans, and hood filters all have a

large buildup of grease on them which heavily restricts air flow. After fans speed was increased this improved smoke capture to about 80%. Makeup air unit was also inoperable.

Measured all airflows within the building. Initially both RTU2 and RTU3 were low on air flow, however they came into design once final filters were removed. RTU1 is inoperable thus does not blow any air into the kitchen, leaving the environment warm and uncomfortable inside.