Facilities Standards & Guidelines

C.66 Oven Exhaust Standard

Revision 0

Issue Date: 04/17/2024

BAE SYSTEMS

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Section 1 – General Requirements

1.1 The objective for providing Oven Exhaust Design Criteria is to provide guidance in standardizing the proper duct materials and insulation for ovens or other processes operating at temperatures higher than 300 degrees Fahrenheit for safety and cohesion.

Section 2 – Specific Design Requirements

2.1 General

2.1.1 All oven exhaust material and routing shall adhere to the manufacture's recommended guidelines to ensure warranty and safety.

2.2 Mechanical Options for Installation

2.2.1 Enervex Power Stack – Stainless Steel Flue/Exhaust Duct

2.2.1.1 Coordinate with the design team for sizing of a stainless-steel duct with double walled pre-insulation for the oven exhaust. Final selections must be coordinated with the oven manufacturer.

2.2.1.2 This application can be ordered as one package, pre-insulated and UL listed.

2.2.2 Open Hood with a Higher Temperature Exhaust Fan

2.2.2.1 For much higher temperature exhaust fans upwards of 600 degrees Fahrenheit, coordination with the Design Team and manufacturer would be needed to install an exhaust hood with fan.

2.2.2.2 Ensure that the fan is accessible for maintenance, with preference on the roof. Coordinate accordingly with Facilities Engineering and maintenance.

2.2.2.3 The utilization of the exhaust hood above the oven requires minimal ductwork form the hood to the oven with an air gap. The air gap allows mixing of the high temperature air with the air in the space to reduce the exhaust temperature.

2.2.2.4 The duct material does not need to be high temperature rated due to mixing.

2.2.2.5 This application can be dielectrically broken at IOA boundaries.

2.2.3 Fully welding stainless steel ductwork with insulation wrap.

2.2.3.1 Coordinate with the design team and contractor stainless steel ductwork to accommodate the high temperature ovens.

2.2.3.2 Ensure that welding is accomplished to create gas in an airtight seal.

2.2.3.3 The ductwork can be wrapped with insulation to a desired thickness, like Insulfrax LTX foil faced blankets provisions. Coordinate thickness with the Design Team, Facilities, and EH&S.

2.2.3.4 This application is more readily available and can be applied to exiting ovens that do not currently have high temperature rated ductwork. However, this approach is not a UL listed flue product and cannot be dielectrically broken for IOA spaces. Confirm the installation with the Facilities Engineering and Maintenance Team prior to implementation.

2.3 Electrical

2.3.1 Coordinate any exhaust fan selections with Facilities Engineering to comply with National Electric Code Standards.

2.4 Signage

2.4.1 Coordinate with Environmental, Health and Safety (EH&S) for proper signage to ensure individuals do not improperly connect or touch the heated ductwork.

Supplemental Document Information

The following resource documents should be referenced for execution of the standards and guidelines described above.

Document Number	Document Title

Revision Log

Revision	Release Date	Description of Changes
0	4/17/2024	Initial Release