



Is a Heat Treatment the Right Choice for My Facility

By

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Yes, most buildings can be heat treated:

- Mills
 - Food Preparation Facilities
 - Warehouses
 - Ships & Rail Cars
 - Hospitals
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- Museums
- Artifacts.
- Sick Building Syndrome

There is very little that thermal heat treatments cannot accomplish.



The first step in a heat treatment is to understand the heating load that will be required to raise the temperature to the necessary degree level.

A heat loss calculation will be require to find the amount of BTU / Hr. that you need to facilitate your heat.



Next you must identify what type of heating equipment that you will be using.

- Steam
- Propane
- Natural Gas
- Electric



You must understand that there will be additional equipment added to the heat treatment area in the form of:

- Additional heaters
- Circulation fans
- Thermal couples



Next you will need to know your energy requirements such as steam availability, propane or natural gas and electrical power draw (amps).

The last thing you need, is to be tripping circuits during your heat treatment process.



There may be certain types of upgrades that your facility may have to undertake.

- Increase your present heating apparatus to help raise the ambient temperatures.
- Start a maintenance program for your existing heating systems.



By insuring that your existing heating system is in prime working condition you will be able to speed up the heat treatment process.

Increased ambient temperatures prior to a thermal heat treatment will reduce the overall time requirements.



There are other considerations that must be taken into account before you decide what type of heating units you are going to use and the amount of heat required.



1. This is very important; you must get verification from a qualified person to identify the hazardous location of the areas that you intend to treat. If you are working in a mill for instance you would have areas that are classified as Class 1&2, Division 2, Groups E, F & G (Dusts)
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You must insure that the equipment that you intend to use in these areas either meets or exceeds that particular hazardous classification.

This is not as difficult as it sounds as there is equipment available that can meet the required codes.



2. Certain types of machinery must be inspected for inks, paraffin's and other volatile substances. These substances must be removed before you begin your procedure.



3. Inspect sprinklers to insure that they can withstand the higher temperatures..
4. Heat sinks in equipment, machinery & concrete floors that are located in the heat treatment envelope
i.e. Steel = $1 \text{ btu} / \text{ hr} / ^\circ\text{F} / \text{ lb.}$



There many things to be considered when evaluating your facility for a heat treatment program.

Fortunately there professional service groups available to help you with your application.



Some of the benefits that you will gain from using heat treatment are;

- Your production time losses are kept to an absolute minimum.
 - Most areas, depending on size can be completed within a 12 hour period.
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- Isolated heat treatment area can be accomplished without shutting down adjoining areas.
 - There is minimum labor required to prepare the area for a thermal heat treatment as opposed to a fumigation process.
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- Thermal heat treatments eliminate the risk of toxic gas poisoning.



Summary

Thermal heat treatment is by far the most viable alternative to toxic gas fumigations.



Summary

Time is running out rather quickly,
decisions must be made soon.



That concludes my presentation
At this time I would be happy to
answer any questions you may
have.

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