

18.70.100

Conditions required of all uses in the light industrial zone.

A. Any use or portion thereof must demonstrate, by noise prediction methods, that it shall not exceed State Department of Environmental Quality standards set forth in OAR Chapter 340, Division 35, Oregon State Noise Control Regulations for Industry and Commerce.

Our roasting facility will not produce discernable noise from outside of the building.

B. Any use or portion thereof producing intense heat or glare shall be performed in such a manner as not to create a nuisance or hazard to any property adjacent to the light industrial zone.

Our roasting facility is lined with metal walls and our roaster manufacturer recommends an 18 inch clearance from combustibles which we have planned for in our layout as well as in our selection and routing of venting material.

C. There shall be no emissions of odorous, toxic or noxious matter, or dust, in such quantities as to be readily detectable from any point outside the light industrial zone as to produce a public nuisance, hazard, or violation of state environmental quality rules and standards.

While coffee roasting can produce an odor it is rarely considered to be a noxious or unpleasant smell. Coffee roasting is the development of carbohydrates in raw coffee beans into sugars through the application of heat. Some roasters take these coffees to a stage called second crack that burns those sugar and produces thick and acrid smoke that is unpleasant. As a company we avoid this step of the roasting process altogether and would not permit that practice on our equipment. Roasting to this stage can carbonize the outer part of the coffee bean and increase fire risk as well as produce really bitter coffee.

The main way that we will mitigate odor is by using our 25ft high roof to our advantage. Our roaster utilizes a powerful fan that is turned to its highest setting during the stage when coffee

roasting produces the most noticeable smell. The positive pressure ducting we will utilize allows us to push air through the machine and out of our venting system to a point of termination called a stack. This approach will enable us to use the power of our exhaust fan to push roaster exhaust above the treeline and away from our neighbors.

Another way that we will mitigate any effect on our neighbors is by using a No-Loss Stack Head. (pictured below)



The No Loss Stack Head does not require a cap which is what causes many exhaust systems to allow the exhaust to settle and linger in the area. By using this piece of equipment we can confidently roast without impeding the flow of exhaust away from us and our neighbors.

I will attach an article taken from a leading industry magazine (Roast Magazine) about the benefits of no-loss stacks when it comes to odor abatement in coffee roasting settings.

Upon opening we plan to roast 1 day a week. Currently we are significantly below the DEQ threshold to require a permit for coffee roasting which is 30 tons (60,000lbs) annually. We currently go through about 5,200 lbs annually. Our operating hours will also be between the hours 8am-5pm, Monday-Friday. Not all hours of operation are roasting hours.

D. All off-street parking or loading spaces shall be surfaced with a dust-free material and shall be maintained.

Off-street parking is going to be up to all regulations per the owners of the building.

E. All materials, including wastes, shall be stored, and all grounds maintained, in a manner which will not attract or aid the propagation of insects or rodents, or create a health hazard.

Coffee roasting does not produce much waste other than coffee chaff which is collected every 5 roasts and saved to be composted in peoples gardens or thrown away through normal waste streams.

F. All business, service, repair, processing, storage or merchandise display abutting or facing a lot in a residential zone shall be conducted wholly within an enclosed building, unless screened from the residential zone by a sight-obscuring hedge or fence permanently maintained and at least six feet in height.

We will not be conducting any business outside of the building that we rent.

Kim Trimiew

From: Cerberus Coffee <cerberuscoffeeco@gmail.com>
Sent: Tuesday, February 15, 2022 12:27 PM
To: Kim Trimiew
Subject: Re: Projected roast quantity and frequency?

Hey Kim,

Thanks for taking the time to chat with me today. Below is an adjustment to the verbiage.

Also here is the link to the [DEQ Permit Application](#) The Ashland-Medford AQMA numbers can be found on page 5.

We have confirmed that we will be below all of the standard emission numbers mentioned in the above application.

Upon opening we plan to roast 1 day a week. Currently we are significantly below the DEQ threshold to require a permit for coffee roasting which is 30 tons (60,000lbs) annually. We currently go through about 5,200 lbs annually. Though we are not required to have a permit, we are issuing an Intent to Construct to the DEQ so that we are on their radar and we can be contacted if they receive any complaints. Our operating hours will also be between the hours of 8am-5pm, Monday-Friday. Not all hours of operation are roasting hours. Our projections could see us at a maximum of 3 roast days per week in the next 3 years and getting closer to the 30 ton mark.

As we grow and our roasting frequency increases we plan to purchase a smoke and odor suppression system that converts the roaster exhaust into clean steam. This investment is something we are currently researching and could expedite in the event that we receive complaints.

On Tue, Feb 15, 2022 at 9:13 AM Kim Trimiew <ktrimiew@cityoftalent.org> wrote:

Hi Cody,

Can you add a statement to the end of the text below describing the projected roast quantity and frequency goals in your business plan? Thanks!

Upon opening we plan to roast 1 day a week. Currently we are significantly below the DEQ threshold to require a permit for coffee roasting which is 30 tons (60,000lbs) annually. We currently go through about 5,200 lbs annually. Our operating hours will also be between the hours 8am-5pm, Monday-Friday. Not all hours of operation are roasting hours.

From: Cerberus Coffee <cerberuscoffeeco@gmail.com>

Sent: Monday, February 14, 2022 1:55 PM

To: Kim Trimiew <ktrimiew@cityoftalent.org>

Subject: Re: Site Plan

Hello Kim,

Thanks so much for the call!

I've attached the amended insights. I added the below to

"C. Upon opening we plan to roast 1 day a week. Currently we are significantly below the DEQ threshold to require a permit for coffee roasting which is 30 tons (60,000lbs) annually. We currently go through about 5,200 lbs annually. Our operating hours will also be between the hours 8am-5pm, Monday-Friday. Not all hours of operation are roasting hours."

Please let me know if there is any additional information or anything else I should know.

Thanks a bunch!

On Tue, Feb 8, 2022 at 10:05 AM Kim Trimiew <ktrimiew@cityoftalent.org> wrote:

This is perfect, thanks.

From: Cerberus Coffee <cerberuscoffeeco@gmail.com>

Sent: Monday, February 7, 2022 8:00 PM

To: Kim Trimiew <ktrimiew@cityoftalent.org>

Subject: Re: Site Plan

Hey there Kim,

Thank you so much for your time today. Please find attached responses to the questions we discussed as well as an updated site plan clarifying bicycle parking as well as the labeled neighbors and coffee roaster venting location.

I have also attached an article to be included with 18.70.100 explaining the venting stack we discussed.

Please let me know if there is any additional or outstanding information. I am excited to begin to operate in the city of Talent and thank you so much for your help!

Please let me know if there is any outstanding information that you require.

Yours

Cody Gordon

Saturday, May 17, 2014

Stack Overflow

Stack Overflow

WE'VE ALL HEARD stories about roastery owners who have had to deal with complaints from their neighbors about coffee smells and smoke. Trouble is, aggravated neighbors don't always come to the roastery door to discuss their concerns in person. Many times, they file a formal complaint, which may lead to downtime at your business as you work with air quality control officials to rectify the problem.

To help avoid these issues from the start, roasters should take a look at their exhaust stacks and--if they don't already have one--install a no-loss stack.

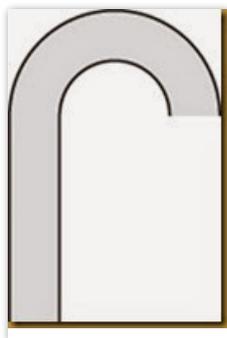
Let's back up a moment to start with the correct terminology, as it helps us define what we are talking about. The no-loss stack is actually just a stackhead - a part that ends, or caps off, your stack. So any stack can theoretically be made to be "no loss" simply by adding a no-loss stackhead. No-loss stackheads are designed to eliminate back pressure on positive pressure-exhausting equipment, while protecting the equipment from the rain.

FIGURE A. Types of Stack Terminations

None of these should be recommended for use with coffee roasters, except for the no-loss stackhead at bottom right. (The no-loss stackhead shown is only one type.)



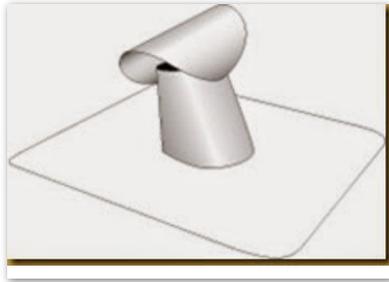
China Cap



Goose Neck



Gas Vent Rain Cap



T-Top



No Loss Stackhead

Keeping your neighbors happy is one reason to adopt a no-loss stack--but it's not the only reason. Fundamentally, the more efficient your machinery is, the better your air quality is likely to be. As a roaster, your core motivation for installing a no-loss stackhead should be making your roasting operation as efficient as possible.

Operational Efficiency



Jet-Cap

The primary reason that no-loss stackheads are important to coffee roasters is that they are, simply, the correct stack termination for equipment with positive pressure exhausts like coffee roasters. Both drum and air roasters have positive pressure exhausts, so this is the correct termination for both types of equipment. If you are using any type of stackhead other than one with no loss, then you are reducing the efficiency of your roaster.

Possible problems caused by back pressure on coffee roasting systems include:

1. Reduced batch capacity
2. More frequent cleaning of blowers (drum) and ducting (air and drum)
3. More variability of product profile



4. More wear and tear on equipment
5. Less energy-efficient operation
6. Smoke in roasting space
7. Chaff not being separated from the coffee

The higher the velocity and/or volume of your exhaust at stack termination, the more problems you will experience without a no-loss stackhead on your installation. This is

due to the increased back pressure caused by higher-velocity and higher-volume exhausts.

Caveats to the use of no-loss stacks

There are always exceptions to every rule, so here are a few for the use of no-loss stackheads.

1. They are designed for stacks that end vertically.
2. There can be environmental factors that may reduce the effectiveness of the rain protection of a no-loss stackhead. These factors can include trees, walls or other buildings in close proximity that may cause rain to be forced straight down when equipment is not in use.
3. Some inspectors do not understand, or may not allow, no-loss stacks--generally because they are unfamiliar with their use. (For these situations, it is possible to modify a China cap to reduce back pressure and the negative effects of pushing smoke down.)

Figure A (page 48) shows multiple types of stack terminations, none of which should be recommended for use with coffee roasters, except for the no-loss-type stackhead. (The no-loss stackhead shown is only one type.)

No other stack termination will give you the positive effects for pollution control that the no-loss stackhead will.

POLLUTION CONTROL

The secondary reason for using a no-loss stackhead has to do with pollution control--more specifically, with reducing your chances of getting nuisance complaints caused by smoke and smell emanating from your stack. With a no-loss stackhead, the pressure of the exhaust helps to push the smoke and smell higher into the atmosphere. Better winds and a wider effluent plume allow for greater dispersion and dilution of both smoke and smell.

With better dispersal and dilution rates, your effluent becomes less offensive, and you will be less likely to receive a nuisance complaint. It is always better to try to reduce your chances of getting a nuisance complaint than it is to deal with air-quality officials after a complaint has been filed, regardless of the final outcome of the complaint.

No other stack termination will give you the positive effects for pollution control that the no-loss stackhead will. Some, like China caps and goose necks, actually force the smoke down (where it can get sucked into HVAC or fresh-air makeup systems), while others, like T-tops, drastically reduce exhaust velocity.

But what about the rain? How does a no-loss stackhead that is open on the top keep rain from coming down the stack?

No-loss stackheads are designed to keep rain out of a stack by using the principle that rain does not fall straight down. Don't ask me how it works exactly. But, believe me, it does work. (Being located in Florida, we get plenty of rain to put this to the test.)

A no-loss stackhead can be adapted for use with any ducting material. This allows for an easy and inexpensive upgrade to all existing roasting operations.

Whether you are installing a new roaster, or just need to fix an old or troubling installation, a no-loss stackhead will help your equipment run better, your coffee taste better and your neighbors stay happier. At around \$100 per stack, a no-loss stackhead is one of the best returns on investment you can make.