Pet Food Safety: From Feed to Food (Part I)

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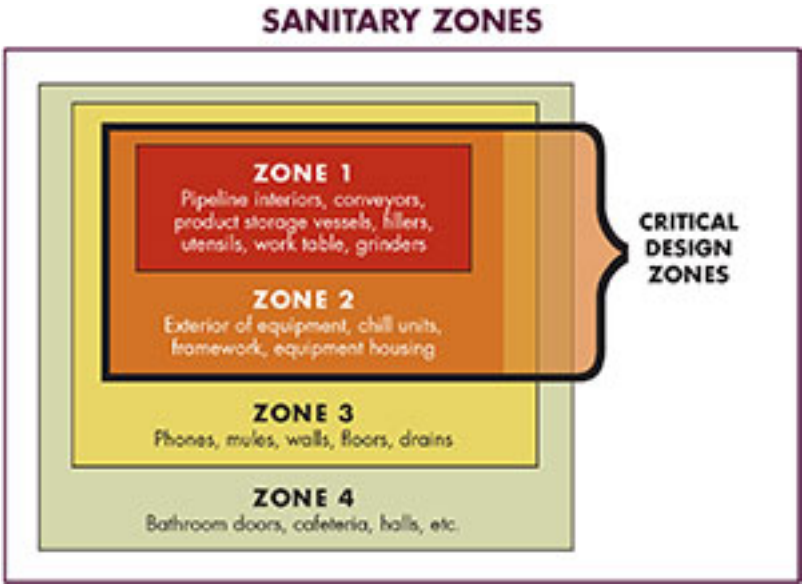


This is Part I of a two-part series. For Part II, click here ***[1].***

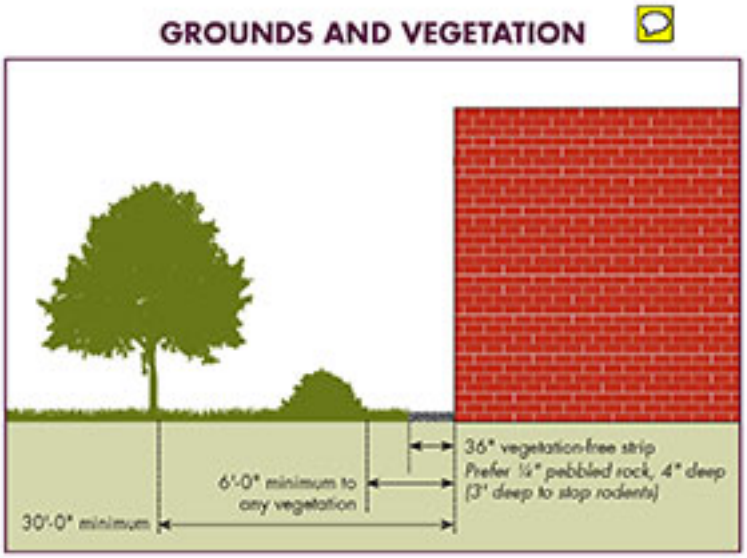
The FDA has raised the standard for pet food processing, and this agency has sharp teeth.

What does the FDA case against the now-bankrupt American Peanut Corporation have to do with dog kibble? Plenty, if a dog or cat owner contracts salmonellosis or another foodborne illness from handling tainted kibble. FDA food safety standards now apply to pet food processing, and this agency has the legal authority to press federal criminal charges against a food manufacturer or processor if unsanitary plant conditions cause human illness.

Don’t think of the product as animal feed, or even pet food, anymore. It’s food, *period*.

Pet food manufacturers have watched consumers abandon well-known brands in droves after a pet food recall, and know that their flight impacts both current and future profits. Yet, in the evolution from feed to food production, many companies have not fully addressed all of the issues associated with food safety. Pet food manufacturers might consider lessons learned from human food manufacturers when it comes to designing and operating processing plants to ensure food safety.

Here is a look at some of the strategies that pet food manufacturers can apply to improve food safety through more effective site selection, facility design, storm run-off and wastewater management, work flows, waste management, and safety training.



Avoid Sites Located in the Shadow of a Volcano

It is essential to select a piece of land that limits the potential contaminants. Sounds obvious, but there have been plenty of cases in which food manufacturers have been lured by cost-saving site deals, including one that was literally located in the ash plume of a volcano.

The right location is one that minimizes contamination risks from water and air. A good start would be a relatively flat site. Ideally, it would be elevated above the local estuaries. Elevated and flat sites minimize the cost of storm run-off management, which can be significant in many areas.

If a low-level site is the only option, avoid the use of open water ponds. One strategy that has proven effective in the food industry is to have the site drained efficiently, conveying water away from the building, and then construct a significantly raised building pad. This will cost more initially, but will save a great deal in storm run-off management.

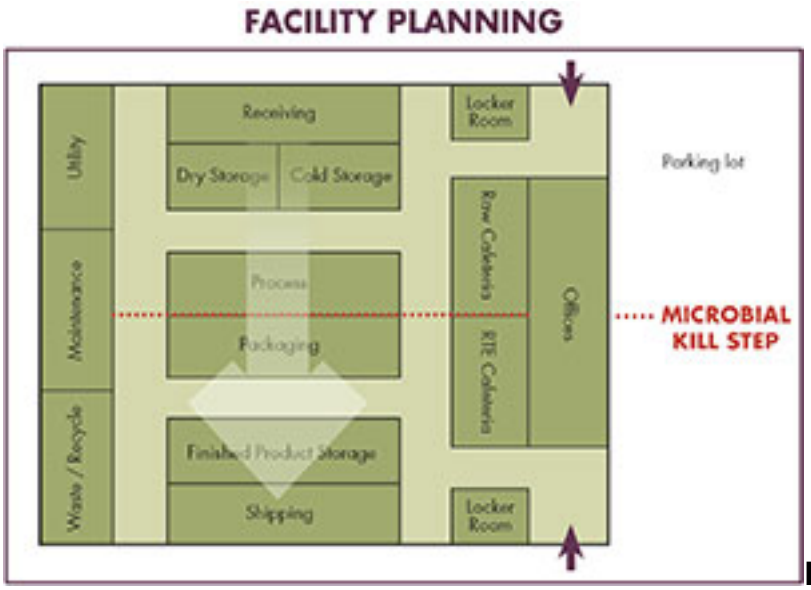
Sometimes the purchase of the gross acreage depends on a government entity draining the building site for the pad. In other cases, industrial park managers provide regional storm run-off management.

Choosing the site presents cost trade-offs that must be weighed carefully, such as when the location is near a power utility station, waste treatment facility or other manufacturing neighbors. Drawbacks presented by the surrounding structures can also invoke some creative design advantages to overcome them.

For example, a developer conceptualized constructing a ship-out facility for an existing food manufacturing plant utilizing the established rail yard for transporting large quantities of packaged finished goods. With the rail yard accessible to both the manufacturing plant and the new ship-out facility, goods could be trucked a short distance to the ship-out facility, sorted and marshaled into rail cars.

Due to the physical constraints of the site, the ship-out facility's receiving docks would face the prevailing winds — not an ideal scenario. To complicate matters, a neighboring recycler already occupied part of the rail yard up wind. A completely exterior operation, the recycler loaded open top rail cars with "fluff" (i.e., all the crushed non-metal components from auto recycling). Dust and debris from that operation would blow directly into the open doors of the new ship-out facility.

To control contamination, the ship-out facility's receiving docks would need to be rotated to face away from the most direct means of access, as well as require an additional investment in sheltered, sealable, access-controlled doors. The cost required to control contamination from neighbors would have to be factored in to the return on investment (ROI) calculations to determine project feasibility and payback.



Don't Become the Local Watering Hole

Water attracts and sustains wildlife and microorganisms. Pet food manufacturers should keep as much as possible off the site, and get rid of the rest *pronto*. The optimal storm run-off management solution depends on local building codes and hydrogeology.

In most cases, the solution involves a retention pond or detention pond (either of which may or may not always- contain water), depending on the hydrogeology of the site and surrounding region. Regardless, locate it downwind and at least 500 feet away from the facility. Dig it shallow to better blend in with the surrounding landscape and fill it with granular material that allows water to percolate more quickly into the soil beneath.

Landscaping at the facility site can absorb storm run-off, but should be limited to trees and shrubs that do not bear flowers or fruit or produce sap. An insect and vermin barrier should also surround the building perimeter. This is typically an uninterrupted pea-gravel band at least 3 feet wide and 3 feet deep. Landscape installers must position major plantings, such as trees, at least 30 feet from the

structure and maintain branching growth to no closer than 6 feet from the structure.

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