

Letter of Explanation
CGB Roller Mill System
Louisville, KY
3/7/18

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MAR 19 2018
PLANNING &
DESIGN SERVICES

Consolidated Grain and barge company is proposing to construct and operate a grain mill system for the purpose of milling whole grain flour (rye, corn, wheat, malt) and bagging whole grains (corn, wheat, rye, malt). The products would serve the distillery, brewing and livestock markets.

The proposed mill system is designed with an operating capacity of 7 tons/hour. The current production will be milling rye into a whole grain rye flour. Initial facility annual volume is 9 semi loads or 180 tons or 6,428 bu of finished product annually. Which equates to 26 operating hours annually. The company expects this volume to grow to 18,000 bushels or 504 tons or 25 semi trucks annually in the next 3 years.

CGB is proposing to construct an 80ftx80ftx50ft building to house the new mill system and serve as warehouse for the finished product. The building will be an all metal building with interior walls lined and concrete floor to provide a clean facility for the mill system and storing bagged product of whole grain flour and whole grains.

Whole grain would be transported from the existing grain elevator to the new mill system by truck using the existing facility traffic lanes. The grain would be unloaded via a receiving drag conveyor and bucket elevator leg to be stored in a 2,000 bu storage hopper bin. The whole is conveyed from the hopper bin to surge bin inside the building via a pneumatic conveyance system. The surge bin will serve to hold whole grain prior to milling system to provide a consistent "feed" to the mill system. Whole grain will be metered from the surge bin via a flow controller into a Destoner to separate out higher and lower density weight material (stones, metal, weed seeds, etc) from the whole grain. The grain will discharge from the destoner and pass thru a bar grate magnet to catch any tramp metal the passes thru the destoner. At this point the whole grain can be directed to the roller mill for grinding or to the finished holding hopper bin for bagging. Whole grain directed to the roller mill will pass through 4 roll roller mill to be ground into whole grain flour. Ground product is conveyed from the roller mill via a pneumatic lift system to sifter system to segregate flour by granulation size. Oversized product will be returned to the roller mill via a gravity spout for further grinding. Finished product will be discharged by gravity into a pneumatic conveyance system to the finished holding hopper bin. The finished holding hopper bin will discharge either finished flour or whole grain into a screw auger to be conveyed to the bag line system surge bin. At this point the product (either finished flour or whole grain) will be weighed and discharged into 5, 10, 25, 50 & 2,000 lb bags.

Important notes regarding the new mill system:

The mill system will be a fully automated mill operation, totally enclosed with dust collection on all receiving, milling and bag line equipment and discharge/transfer points. This will provide a clean working and production facility.

All traffic between the existing elevator and the mill will be kept on facility grounds and driveways.