

**Exception:** (species: Pig. Number of animals affected in FY2019: 15)

Gnotobiotic Piglets are approved for exceptions related to social housing, floor space, temperature ranges, and cage sanitation intervals.

Gnotobiotic Piglets may be housed individually (for no more than 24 hours and no more than 2 times in an experiment) to assess feed consumption, urine and fecal output and assess general health. During this time they will have additional positive human interaction and may have visual, auditory and olfactory contact with conspecifics. They will also have various cage complexities (toys, etc.) to enrich the cage when possible.

Gnotobiotic Piglets may be housed in space that has less than the required amount of square footage necessary according to USDA/NIH standards. Because these animals are housed under gnotobiotic conditions in a sterile isolator, they cannot be moved into a larger space as they grow. Housing space should be in accordance with the Ag Guide for group housed piglets and should have 1.7-4.0 s.f./pig.

Piglets also require higher temperatures during the first few weeks of life than standard housing temperatures for adult swine. Piglets may be housed in temperatures ranging from 79F-90F preferably but extremes may be from a low of 60F and a high of 95F. These temperatures are within the range recommendations of the Ag Guide for this size and age pig.

Because these animals will be within a germfree environment, standard cage sanitation cannot be done. Piglets will be housed on slatted flooring to allow feces and urine to be collected and housing will be cleaned (wiped down with sterile cloths, rags or paper towels) daily to maintain a clean environment. Isolators will not be sanitized until the completion of the study (up to 8 weeks). In extreme cases where the environment cannot be maintained in a clean fashion, piglets may be transferred to a new isolator.