



ANIMAL WELFARE STANDARDS

Revised December 9, 2021



CONTENTS

SECTION 1: INTRODUCTION 3

- 1.1 Introduction 4
- 1.2 PEAK Animal Welfare Team 5
- 1.3 Regulatory and Industry Body Standards
for Animal Welfare Programs 5
- 1.4 Reporting Welfare Concerns. 5

SECTION 2: WELFARE ASSESSMENTS. 6

- 2.1 Daily Observations 6
- 2.2 Staff Training & Development 6

SECTION 3: HERD HEALTH MANAGEMENT . . . 7

- 3.1 Medical Care 7
- 3.2 Pain Management for Surgical Procedures 8
- 3.3 Vaccination and Disease Prevention 8
- 3.4 Antibiotic Use 8
- 3.5 Hoof Care 8
- 3.6 Euthanasia 8

SECTION 4: ANIMAL CRISIS PLANS. 9

- 4.1 Emergency Action Plans 9
- 4.2 Foreign Animal Disease (FAD)
Enhanced Biosecurity Plans 9

SECTION 5: ANIMAL HUSBANDRY & HANDLING 10

- 5.1 Restraint Methods 10
- 5.2 Movement of Animals 11
 - 5.2.1 Use of Driving Aides 11
- 5.3 Animal Transport 11
- 5.4 Nutrition & Feeding 12
- 5.5 Semen Collection 12
 - 5.5.1 Electro-ejaculation 12
- 5.6 Handling of Non-ambulatory Animals. 12

SECTION 6: ANIMAL HOUSING 13

- 6.1 General Individual Housing 13
- 6.2 Calf Housing 13





SECTION 1: INTRODUCTION

KEY POINTS

- PEAK values and respects its animals and is committed to providing excellent animal care
- Willful acts of abuse or neglect of PEAK animals are not acceptable under any circumstances.
- PEAK promotes best practices of animal welfare by providing **good nutrition, good environment** that allows **appropriate behavior, good health**, and **positive experiences**.
- All staff are educated on PEAK's animal welfare policies and expectations, including information on how to report any welfare concerns.

1.1 Introduction

PEAK, the bovine genetics and semen production subsidiary of URUS, recognizes animal welfare as a crucial aspect of and a core value in its operations. PEAK values trust and transparency and developed this PEAK Welfare Standards document. The document demonstrates PEAK's commitment to optimal animal care and communicates PEAK's processes for evaluating and ensuring animal welfare and wellness in PEAK Production and partner facilities. PEAK deeply respects our animals and is passionate about providing best-in-class animal welfare. PEAK is dedicated to ensuring a balanced and nutritious diet, a comfortable living environment, good health through disease prevention and care, and to promote appropriate social behaviors and positive interactions for its animals. Our team is focused on balancing scientific knowledge and professional judgment with sincere concern for the animal. Decisions regarding PEAK animal care and welfare are made using the American Veterinary Medical Association (AVMA) Principles, Certified Semen Services AI Center (CSS AIC) Management Guidelines, American Association of Bovine Practitioners (AABP), Farmers Assuring Responsible Management (FARM), Federation of Animal Science Societies (FASS), and World Organization for Animal Health (OIE) recommendations. We do not tolerate deviations from our animal welfare standards. Every single animal in our facilities is treated with the utmost respect and care. It is an expectation of PEAK that staff immediately report if they see any mistreatment of animals. PEAK requires all staff to participate in animal welfare and safety, and to "see it, stop it & report it".



PEAK makes the following commitments:

- **Animal Welfare Program:** It is an expectation of PEAK's business that the care of our animals meet or exceed industry and regulatory standards, and demonstrate best practices for providing animal care and wellness.
- **Welfare Assessments:** All animals are assessed by visual observation as individuals for evidence of good health.
- **Herd Health Management:** All animals are cared for with a herd health plan, overseen by veterinarians, that conform to good veterinary and husbandry practices.
- **Animal Crisis Plans:** PEAK maintains a safe workplace for staff and animals, and trains staff on safe practices in using equipment, handling cattle, handling health products, and around potentially hazardous areas. PEAK trains employees on what to do in case of an emergency.
- **Animal Care & Handling:** PEAK practices safe and low stress handling methods.
- **Animal Housing:** PEAK housing facilities are designed and inspected regularly to ensure safe and easy animal movement, appropriate temporary restraint, and housing comfort.

PEAK's program uses an evidence-based approach of measuring animal care inputs, the factors that influence welfare, as well as outputs, the measurable

outcomes of an individual's welfare. As the scientific community expands application and interpretation of welfare variables, we will commit to updating our welfare standards and assessments. Using these as KPIs is intended to not replace attention to individual animal care, but rather provide documentation of continuous improvement.

PEAK is committed to promoting positive welfare for animals in our care by focusing on the following:

- **Good nutrition** – to readily provide access to fresh water and diet to maintain good reproductive body condition with full health and vigor
- **Good environment** – provide shade/shelter from the elements or suitable housing, good air quality and comfortable resting areas
- **Appropriate behavior** – provide appropriate space, proper facilities and appropriate socialization based upon age and express normal behaviors including reproduction, routinely throughout the year
- **Good health** – prevent or rapidly diagnose and treat disease or injury and foster healthy body condition
- **Positive mental experiences** – provide safe, calm opportunities to have pleasurable experiences, to minimizing pain and discomfort and have the opportunity to engage in natural behaviors.

1.2 PEAK Animal Welfare Team

The PEAK Animal Welfare Committee is composed of experts in bovine veterinary medicine, cattle housing and handling practices, and animal welfare research. Representatives on the committee consist of both internal and external (third party) members. The role of the committee is to review PEAK policies and procedures to ensure they meet PEAK expectations and reflect current best practices. Members of the committee serve cyclical terms to allow additional input and fresh perspectives into the conversation.

1.3 Regulatory and Industry Body Standards for Animal Welfare Programs

Thoughtful evaluation of animal welfare is an expectation of PEAK business. PEAK refers to the following organizations and programs for guidance:

Table 1. Regulatory and Industry Body Standards for animal welfare referenced by PEAK.

Organization	Acronym	Web Address
US Department of Agriculture: Animal and Plant Health Inspection Office	USDA APHIS	https://www.nal.usda.gov/awic/
European Union	EU	https://ec.europa.eu/food/animals/welfare_en
National Association of Animal Breeders/ Certified Semen Services	NAAB/CSS	https://www.naab-css.org/management-guidelines
World Organization for Animal Health	OIE	https://www.oie.int/en/home/
American Veterinary Medical Association	AVMA	https://www.avma.org/
American Association of Bovine Practitioners	AABP	https://www.aabp.org/
National Dairy FARM	FARM	https://nationaldairyfarm.com/
Beef Quality Assurance	BQA	https://www.bqa.org/
Federation of Animal Science Societies	FASS	https://www.fass.org/

1.4 Reporting Welfare Concerns

PEAK has zero tolerance regarding any deviation from PEAK's animal welfare policies. PEAK employees are expected to immediately report any observations or suspicions of inadequate animal welfare. To encourage reporting to be prompt, many avenues for this reporting process are in place. PEAK offers a reporting system that can be used anonymously by staff to report mistreatment or other welfare concerns. Staff can also work directly with supervisors, production site managers, veterinarians or any person within the PEAK executive team. Non-reporting or delayed reporting also has zero tolerance.



SECTION 2: WELFARE ASSESSMENTS

KEY POINTS

- All PEAK staff in contact with animals are trained on assessing animals for health and wellness indicators, including methods to report observations and concerns.
- All individual animals are observed daily for indications of health or wellness issues. Any issues observed are expected to be promptly reported.

2.1 Daily Observations

An animal's welfare state is based on a combination of factors that affect physical and behavioral wellbeing. PEAK staff uses visual cues regarding animal posture and behavior, food and water consumption, locomotion and hoof health, semen quality, and other clinical observations such as overall demeanor for indications of animal health or welfare concerns. Animal husbandry staff are encouraged to become familiarized with the personalities and temperaments of the individual animals to better manage the animal and provide a positive environment.

2.2 Staff Training & Development

All PEAK employees are familiar with and sign off on the PEAK **Animal Welfare Policy**. Upon hire, employees in contact with animals are required to complete mandatory **Livestock Behavior and Handling training(s)**, which communicates handling safety and PEAK animal welfare expectations. These course(s) must be completed prior to handling animals independently. PEAK Livestock staff are also expected to participate in a **PEAK Bull Handling Audit** twice annually.

At least once annually all staff in contact with PEAK cattle complete an animal welfare and behavior training course which provides education on key clinical and behavioral signs of health or welfare concerns in the animals.



SECTION 3: **HERD HEALTH MANAGEMENT**

KEY POINTS

- PEAK follows a herd health plan, led by veterinarians, that conforms to good veterinary and husbandry practices.
- PEAK employs disease prevention practices to protect herd health, including 24-7 access to veterinary medical care.
- Medical care is recorded for the individual animals, and includes as applicable the product administered, dosage, route and location of administration, and name of individual administering the treatment.
- Appropriate methods are used to humanely euthanize terminally sick or injured livestock under supervision of a PEAK veterinarian.
- In the event of euthanasia, carcasses are properly handled in a respectful manner.

3.1 Medical Care

Medical care and treatment of animals under PEAK management is a pivotal component of animal welfare. When considering the best possible animal welfare in relationship to medical care, each center considers staffing, pharmaceuticals, equipment, nutrition and general animal care and handling policies.

PEAK herd health plans:

1. Emphasize disease prevention and biosecurity of facilities.
2. Include written procedures for livestock staff for the use of animal drugs for veterinary purposes, and appropriate security of the drugs.
3. Provides veterinary coverage, available 24 hours a day, 7 days a week.
4. Follows the Animal Medicinal Drug Use Clarification Act of 1994 (AMDUCA) and American Veterinary Medical Association (AVMA) guidelines when prescribing treatments.
5. Expect animal handling procedures are followed and that animal handling equipment is available to authorized, trained personnel at all times.

While our cattle as individuals receive customized care as needed, in general our animals receive regular medical evaluations, participate in herd health testing, and have body condition scores (BCS) evaluated at routine intervals to ensure overall wellness.

3.2 Pain Management for Surgical Procedures

Certain medical procedures, such as nose ring application and dehorning, are performed for the protection of the animal and animal handlers. When possible, bulls are dehorned and/or have nose rings applied under conditions that cause the least tissue trauma.

Animal treatment records, medications and vaccine administration meet Beef Quality Assurance (BQA) standards, surgery (dehorning, penile surgery, and nose ring placement), are performed under the supervision of licensed veterinarians following the current standards of recommended care of livestock. Surgical procedures are performed with appropriate restraint, sedation, anesthesia, and post-operative pain management as required by the current standards of practice per AVMA guidelines.

3.3 Vaccination and Disease Prevention

PEAK herd health plans focus on disease and infection prevention practices to minimize the need for intervention. Vaccines aid in the prevention of common viral and bacterial disease and lessen the possible need for treatments. Vaccines are administered by approved PEAK staff and follow administration schedules as allowed to adhere to biosecurity status and health needs.

Vaccines are handled and stored as directed by the manufacturer. Sterile and fresh needles are used to ensure pain minimization and to ensure no transmission of disease during vaccine administration.

3.4 Antibiotic Use

PEAK supports responsible antibiotic stewardship to ensure animal health technologies remain viable. Alternatives to antibiotic use are considered when possible. However, antibiotic treatment may be necessary as an intervention for the health of the animal. Use of antibiotics is determined under direction of a PEAK veterinarian. PEAK follows the AVMA and FARM guidelines for the use of antimicrobials for the prevention of disease in certain situations. Prevention is the

administration of an antimicrobial to an individual animal or a group of animals none of which have evidence of disease or infection, to mitigate the risk for acquiring disease or infection that is anticipated based on history, clinical judgment, or epidemiological knowledge. Medically important antimicrobial drugs for humans are not fed to PEAK animals for growth promotion or feed efficiency reasons. Ionophores are fed to PEAK animals in our nutrition program for disease prevention. Ionophores are not used in human medicine and are not a medically important antimicrobial drug in human medicine.

3.5 Hoof Care

PEAK's hoof health program focuses on preventative care to avert incidences of lameness. All animals are monitored daily for locomotion. Any lameness is reported immediately to the veterinary staff and hoof trimmers.

At PEAK, all animals are trimmed by staff trained by an approved hoof care program which requires a minimum of 24 hours combined of classroom instruction and hands on trimming experience with direct supervision. All PEAK animals are required to be trimmed at least every 6 months, with some animals needing a higher frequency of trimming due to chronic conditions. Animals are properly restrained and secured before performing hoof care. While restrained, the animal's safety and well-being are monitored. PEAK facilities provide access to foot baths for use when recommended.

3.6 Euthanasia

It is the ethical responsibility of veterinarians to recommend euthanasia as a compassionate treatment option when the alternative is prolonged and unrelenting suffering. Euthanasia decisions are made by PEAK veterinarians and are made on behalf of the animal's welfare state.

Euthanasia methods used are aligned with AVMA guidelines. This is defined as "ending the life of an individual animal in a way that minimizes or eliminates pain and distress." Approved euthanasia methods are performed only by PEAK veterinarians or trained PEAK employees under the guidance of a PEAK veterinarian.



SECTION 4: **ANIMAL CRISIS PLANS**

KEY POINTS

- PEAK has developed emergency action plans in case of unexpected circumstances.
- Employees are trained what to do in case of an emergency.

4.1 Emergency Action Plans

PEAK Disaster Plans are in place to ensure proper actions are taken in the event of natural disasters and facility emergencies (Emergency Action Plans, or EAPs), as well as procedures to follow in event of an outbreak of a Foreign Animal Disease (FAD). These plans instruct PEAK staff on what steps to take for animal care and health, employee safety, biosecurity, and business continuity in the event of a disaster. These plans are accessible by all employees and are featured in the Livestock Operations Manual.

Emergency Action Plans (EAPs) are plans in the case of a natural disaster or facility emergency situation. We recognize the critical need to coordinate resources and align communications internally and externally in an urgent timeframe. Plans have been developed for each PEAK production location on the following emergencies:

- Fire
- Tornado
- Flooding
- Snowstorms
- Utility outages
- Emergencies during animal transportation, such as extreme weather issues, mechanical breakdowns, or in the event of an accident
- Public health concerns, such as the COVID-19 pandemic

4.2 Foreign Animal Disease (FAD) Enhanced Biosecurity Plans

PEAK's FAD Enhanced Biosecurity Plans provide an outline for what to do in the event of an animal health emergency – specifically to an FAD outbreak in the United States or Canada. As PEAK employs best practices for biosecurity and animal health management, herds have been established which are essentially disease-free. As such, the population of animals at PEAK facilities have limited immunity to a variety of cattle diseases, and no immunity to transboundary animal diseases (TAD). The FAD Enhanced Biosecurity Plans outline biosecurity practices which will aid in keeping these diseases out of PEAK facilities. The key points of these plans include the following:

- Identifying management and responsible individuals for each facility
- Outlining training requirements for essential personnel
- Measures for protecting livestock through boundaries, access points, and distance
- Processes for vehicles and equipment biosecurity
- Protocols for personnel including documenting entry and describing procedures for entry to and exit from facilities.
- Animal movement rules – incoming, outgoing, and transportation protocols

SECTION 5: **ANIMAL HUSBANDRY & HANDLING**



KEY POINTS

- PEAK facilities are designed to allow safe, humane, and efficient movement of cattle.
- PEAK facilities feature humane and safe restraint equipment.
- PEAK employees are provided with training to properly handle and care for bulls.
- PEAK uses animal restraint for specific, temporary health care and husbandry procedures.
- All PEAK animals are properly identified as individuals.
- PEAK animals are evaluated as fit for travel before transportation is allowed.
- All PEAK animals are handled and transported using methods that minimize stress and injury.
- PEAK vehicles used to transport cattle allow for safety of staff and animals during loading, transportation, and unloading.
- PEAK ensures animals have access to an adequate clean water supply and appropriate nutrition.

5.1 Restraint Methods

Temporary restraint systems are used in PEAK facilities to allow housing and veterinary staff to care for PEAK animals in a manner safe for staff and the animals. Systems used include headlocks, chutes, tilt tables and stand-up hoof trimming chutes.

Headlocks are used to catch and safely restrain a bull so he can be handled for various reasons (collection, testing, movement, repairs, etc.). They are a non-invasive way to catch and restrain a bull and still allow him to reach his food in his normal housing environment

PEAK uses both manual and hydraulic cattle chutes which are adjustable to the size of the bull. Moving a bull to the chute is done in a calm, quiet manner. Livestock staff are trained in the safe operation of the chute. Bulls are immediately released when the task is complete.

Tilt tables and stand-up hoof trimming chutes are used to secure the animal and the animal's feet for hoof trimming. When using a tilt table, the process is carefully monitored to ensure it is completed as quickly as possible.

5.2 Movement of Animals

PEAK practices safe and low stress handling methods. Halters are used as a safety control while leading a bull to a different location and as a restraint for testing or other necessary tasks. Halters are adjustable to the head size of the animal. After each use the halter and lead rope are dipped in a disinfectant solution before using it on a different animal to prevent spread of disease.

Lead ropes are used when handling bulls over 15 months of age. Before using a lead rope, the ring, lead rope and snap on the lead rope are inspected to make sure they are in proper working condition. Mature dairy bulls are led with a lead rope secured to the ring for the safety of all animals and staff involved when handling bulls for collection, testing or other activities as needed.

Placement of a nose ring is mandatory for all bulls and steers housed at PEAK facilities. The ring is a means of restraint for control and direction of bulls when handling. The ring is placed by specially trained PEAK personnel under direct supervision by the staff veterinarian in accordance with standard operating procedures. Bulls have rings placed as early as possible to allow for at least 4-6 weeks of healing time prior to entering the resident herd for semen collection. Bulls are trained to lead using a halter/lead rope and ring rope. Bulls are not restrained by the ring alone without the additional use of a halter or neck chain.

5.2.1 Use of Driving Aides

Driving aides, plastic paddles, sorting sticks, streamers and flags may be used to safely persuade animals to move in the designated direction. These tools are considered an extension of the handler's body and are used in a calm and sparing manner. When addressing locked animals, methods used to encourage the animal to move forward are executed in an escalating manner, always working with least invasive methods possible.

1. The pathway is checked for shadows, unusual/foreign objects, etc. that may cause bull movement hesitation. If safe, the employee should enter the environment to view it the same as the animal. Lights could also be adjusted to encourage forward motion.
2. If applicable, a second animal may be used to encourage herd movement.
3. Noise makers, such as a rattle paddle, may be used to redirect the animal's line of vision, if applicable.
 - a. Handling tools may be kept in hand while handling the animals to be used as a means to redirect the animal using the flight zone.

- b. A rattle paddle may be used by shaking it behind the animal or carefully tapping the animal on the back to encourage forward movement. At no time should it be used as a striking tool.
4. The use of electric prods is reserved for exceptional situations and, only after all other techniques have first been attempted.
 - a. As a last resort only, application of an electric prod may be administered only by trained staff.
 - b. When electric prods are used, handlers must avoid contact with sensitive areas on the animal per AABP guidelines.
 - c. Any application of electric prods must be reported to the supervisor and PEAK Animal Welfare Officer, including details of reasons for application, parts of the body, and number of applications.
 - d. Cattle prods are to be stored in a location outside of the immediate work area to discourage application.

No handling tool at any time is allowed to be used to whip, hit, kick, or prod cattle in forceful actions that could cause injury, pain or harm to the animal. **Abuse of animals is not acceptable under any circumstances.**

5.3 Animal Transport

PEAK follows strict guidelines for transporting animals. A health assessment is done for all animals prior to loading. Any animals that are not fit for transport are not loaded onto the trailer and remain on site until they recover or are moved to a referral hospital for care. Staff ensure that animals are fed and watered prior to loading.

Trucks and trailers are always inspected before transport prior to loading for any sharp edges and malfunctioning gates etc. to ensure that animals do not get hurt. The outside of the trailer is clean and presentable, the inside is clean, disinfected and bedded with clean and dry bedding. The drivers are familiar with good animal care and observation practices and how to load and unload animals properly per the BQA master cattle transporters guide. All trailers are designed with non-slip floors.

The loading facilities at PEAK sites are designed so that it is possible to load or unload the bulls safely based on trailer type. Both portable and permanent loading chutes may be used depending on facility. The loading facilities are designed in a way that allows good loading and unloading practices and are used with minimal stress on the animals.

During transport, PEAK provides sufficient bedding on the trailer for the animals to stay dry throughout the whole transport until unloading of the trailer. In cold

temperatures, PEAK ensures a good bedding pack of shavings and straw to keep animals comfortable. In extreme cold temperatures air holes are closed off to keep animals comfortable and extra bedding is added when needed. In the summer, air holes are all open and the trucks keep moving so that animals have good ventilation. For long haul trips PEAK follows rest breaks with feeding and watering the animals. The trailers are designed and loaded with a sufficient height to avoid back injuries, and animals are placed in compartments based on their size. The space requirements for PEAK breeding stock exceed what is outlined in the **BQA Master Cattle Transporters Guide** and allows enough space so that the animals can lay down. Mature bulls are penned separately to avoid injuries. Younger animals are grouped according to their size. For long haul transport and when the heat index is $\geq 100^{\circ}\text{F}$, the loading density is further reduced by 10% per the BQA MCTG to increase the space per head and maximize air movement.

5.4 Nutrition & Feeding

Balanced diets and high-quality drinking water are essential for cattle of all ages to maintain adequate health and to achieve performance expectations of PEAK. PEAK facilities work with nutritionists and staff veterinarians to formulate diets appropriate for age and stage of production for PEAK cattle. Diets and ingredients have routine analysis for quality and are screened for mycotoxins. PEAK facilities monitor water quality every 6-12 months; results of well water sources are shared with veterinary staff and nutritionists.

Feed and feed ingredients are stored in areas designed to prevent buildup of moisture and contamination from pests and pathogens.

Growth metrics, including average daily gain and body condition, are measured routinely for PEAK cattle to evaluate efficacy of diets and if changes are necessary to meet growth and performance goals.

5.5 Semen Collection

Semen is collected on healthy and willing bulls. While all bulls intended for collection are brought to the collection arena, some bulls do not engage with the teaser animal/mount and are not collected. These bulls are returned to their housing area, and semen collection records include details regarding the animal's collection behavior.

5.5.1 Electro-ejaculation

The use of electro-ejaculation as an alternative semen collection method will be limited to those circumstances when the temperament or physical condition of a bull renders collection of semen by AV unsafe or impossible. If this method is applied in other situations, it should be employed only after a diligent effort to collect semen via the AV has failed, including systematic trial of different teaser animals and collection sites. Casual substitution of this method for diligent collection room management is not allowed.

PEAK Management supports and fosters humane considerations in the management of bulls, including the recommendations of PEAK staff regarding the unsuitability of a bull for collection by electro-ejaculation. Livestock handlers in daily contact with the bulls are often the most astute judges of the temperament and physical response of bulls, and their evaluations of the response of individual bulls to electro-ejaculation are requested and followed.

5.6 Handling of Non-ambulatory Animals

PEAK believes that all cattle, including non-ambulatory cattle, must be handled humanely in all situations. PEAK follows American Association of Bovine Practitioners (AABP) guidelines when assessing these animals. These guidelines state that the veterinarian will be involved with a timely assessment, prognosis, and implementation of a management plan for each non-ambulatory and injured-ambulatory bull receiving treatment at a PEAK facility. After veterinary assessment, if the animal has been determined to be non-ambulatory but prognosis is favorable for recovery, one of the following will happen:

1. If the bull is comfortable and accessible in his pen, and can be safely treated, the bull may be housed in his pen. Special accommodation will be made to make sure adequate feed, water and bedding are provided. He will be evaluated at least once daily by the veterinarian to ensure treatment and condition are progressing favorably.
2. If the bull needs intensive care, he is moved in the most humane way possible (i.e., sling, stone boat, or rubber mat) to either a referral veterinary hospital or to an area in which treatment can be easily and safely accomplished on site. Every effort will be made to effectively manage pain and stress on the animal prior to moving. If the initial prognosis is not favorable for recovery, the bull will be promptly euthanized in a manner in accordance with AVMA humane euthanasia guidelines.

SECTION 6: **ANIMAL HOUSING**

KEY POINTS

- PEAK facilities are constructed to allow for cleaning and disinfection using impervious surfaces for new construction and well drained and maintained outside runs for older facilities.
- PEAK animal housing facilities (fences, stalls, pens and alleys, etc.) are routinely inspected to ensure safe and easy animal movement.
- Feed and water handling equipment is kept clean.



6.1 General Individual Housing

PEAK bull housing is focused on providing clean, well-lit, ventilated buildings that protect them from inclement conditions. PEAK bulls have both visual and vocal social interaction with other bulls within the facilities. These include tie-stalls, box-stalls, or swinging gate pens. Most bull housing comprises single pens having 81-144 square feet of pen area to be used for access to water and feed and 81-144 square feet of bedding pack to lay on. These pens range in size from 9 x 18' to 12 x 24' total. Bulls are not tethered in these pens. Tie stalls are used in 2 housing units. They are 8.75 ft x 5.3 ft and are used for bulls less than 1650 pounds. Bulls are moved to bigger pens as they get older and larger. PEAK has no plans to construct any future bull housing with tie-stall housing and in future construction will build pens that are from 81-144 square feet of pen area to be used for access to water and feed and 81-144 square feet of bedding pack. Bulls are bedded with wood shavings or straw and are kept clean, dry and comfortable

6.2 Calf Housing

Ongoing research in areas of social development of calves and group housing show beneficial effects of this environment from a young age on starter intake, growth and development through weaning and beyond. Calves raised in groups as small as two can adapt to new surroundings and stressors more readily than single-housed calves. PEAK recognizes the need for healthy, well-adapted calves due to housing movements and facility transitions that occur through the PEAK program. Habits such as cross-sucking, aggression, and transmission of disease are a concern when group-housing calves, including the management of future PEAK AI bulls with unknown health status prior to entry to CSS facilities. PEAK facilities are focused on providing housing facilities that can be adapted to pair-housing of calves from the same source herds and of similar age, size, and health status prior to the weaning process. We recommend that PEAK partners focus on providing housing facilities that can be adapted to pair-housing of calves. PEAK recommends calves have visual contact with other calves starting at one day of age as a minimum. PEAK does group house weaned calves to allow for more social interaction, growth, and development.

