SSOP - Milk Pumping and CIP Checklist

			LOT #
			Numero del Tanke
		/ /	Fecha
		:	Tiempo de pompear la leche
			Aire filtrado
			Aprueba la leche antes de Pompear
			Recivir al Silo 1 o Silo 2
1			Medir comienzo de la leche
2			Medir la leche al terminar
2-1->			Galones de leche en el tanque
x8.6			Libras en el tanque
			Tomar la temperatura del la leche
		:	Limpiar en su lagar
			Temperatura de la agua caliente
			Anote el novaLUM swab si paso o fallo
			Hacer otro swab si paso o fallo
			Registre el # de Lote en la tabla de temperatura
			Limpiar el Exterior
			Agitador puesto y trabajando
			Protector puesto contra el polvo y limpio
			Limpiar valvula fuera de lugar
			Tapones estan puestos (T1=3, T2=4)
			Empaques/tapas limpias
			Baño de hielo con desinfectante
			Nuevo papel de aviso puesto

Firma: _____

			LOT #
			Tank #
		/ /	Date
		:	Milk Pump Time
			Filtered Air
			SNAP tested before pumping
			Silo 1 or Silo 2 Receiving
1			Beginning Milk Measure
2			Ending Milk Measure
2-1->			Milk Gallons in Tank
x8.6			Pounds in Tank
			Temperature taken
		:	CIP Time
			Hot temp
			Record novaLUM swab- pass or fail
			reswab results- pass or fail
			Record Lot # on Silo temp chart
			Exterior clean
			Agitator shaft in place
			Dust shield on and clean
			Valve COP
			All caps are on (T1=3,T2=4)
			Gasket/caps clean
			Ice bath with sanitizer
			New wash tag replaced

Signature: _____

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2-1->			Milk Gallons in Tank
x8.6			Pounds in Tank
			Temperature (Note here)
		:	CIP Time
			Hot temp
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			Dust shield on and clean
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SSOP

Clean In Place – CIP
Creamery Line

Reference: Processing Conditions and Facilities, Item 2
Risk Reduction: Ensure no coliforms are added to the raw milk that is received from the dairy and a sanitary processing line is well maintained
Frequency: CIP: At the start of each shift, after each use
SUPER CIP: Once per week
Remediation: If this procedure is suspected to be inadequate, investigate root causes of cross contamination and revise the SSOP and infrastructure for its implementation
Procedure: Follow the procedures below

1. CIP
    a. CIP is the process of Cleaning In Place
        i. This is accomplished by having a closed loop with a recirculation pump using water of various temperatures and chemicals
    b. Make sure the CIP sink is empty and connected to the processing line
    c. Make sure the processing line is connected for CIP with all gaskets and clamps
    d. Rinse the line with cold water until all milk is removed from the line
    e. Fill 41 gallons of hot (>140°F temperature at thermometer, exit >160°F) water into the CIP vat
        i. Grade A standards only require 120°F or hotter
            1. Add 1 gallon (128 fl. Oz.) HD Liquid CIP detergent
            2. Wash for 10 minutes or until water drops to 120°F, whichever comes first.
                a. Recirculate hot water in vat while washing
                b. After wash, remove recirculating hose from vat to empty
    f. Rinse lines with cold water for 5 minutes. Do not circulate water.
    g. Fill 41 gallons of cold water into the CIP vat
        i. Add 24 fluid oz of Oxonia Active Sanitizer
        ii. Wash for 5 minutes
            1. Recirculate water in vat while washing
            2. After wash, remove recirculating hose from vat to empty
    h. Do not rinse the line, just open the drains and let the water drain

2. Once a week replace Oxonia Active with CIP Acid Rinse.

3. SUPER CIP
    a. Follow all steps for a CIP
    b. During hot water step
        i. Add 5 pounds of CD-10 or 2 pounds of Caustic Soda beads to Liquid CIP
            1. You must first add dry chemical to cold water.
            2. Add water cocktail to hot water vat.
4. PPE and Safety
    a. PPE is Personal Protective Equipment and includes:
        1. Safety glasses
        2. Gloves
        3. Respirator
        4. Apron
        5. Rubber boots
    b. Never add more chemicals than this SSOP requires
        i. More is not better, it can actually be dangerous to your safety
        ii. Never deviate from this protocol, chemicals will react differently with different temperature water and also with other chemicals if they are mixed
    c. Always wear PPE when handling chemicals and during CIP
    d. Maintain air circulation in CIP room and avoid directly inhaling chemicals as they are very harmful
    e. MSDS is available in the break room
        i. There will be a laminated copy of the MSDS and this SSOP near the chemicals
    f. <u>Call the Creamery Manager and 911 immediately if you are injured by chemicals</u>
5. A quick reference of the chemicals used and their treatment is:

Chemical	**Use**	**First Aid for all**
Liquid CIP	Hot water detergent	Rinse eyes 15 min
Oxonia Active	Cold water acid	In eye wash station,
CIP Acid Rinse	SUPER CIP acid	Drink water if ingested,
CD-10 Caustic	SUPER CIP detergent	Move to ventilated area if inhaled

SOP

Collecting samples from Silo SOP

Reference: Reference 2

Risk Reduction: Prevent obtain proper samples of milk samples for proper results of testing.

Frequency: 24 hours a day, 7 days a week.

Remediation: If this procedure is suspected to be inadequate, investigate and implement changes as needed.

Procedure:

1. Preparing to obtain samples:
    a. Be sure to obtain a sufficient amount of clean vials.
    b. Have a flat and stable surface to place vial(s) on after sample is taken.
    c. Obtain a sharpie permanent marker to identify vial(s).

2. Collect samples from silo:
    a. Agitate the tank for the proper length of time
        i. If less than 1000 gallons agitate for 5 minutes.
        ii. If tank is greater than 1000 gallons agitate for 10 minutes.
    b. The petcock must be in contact with a sanitizing solution of 200 ppm or more of chlorine, or 25 ppm iodine, for at least one minute before sampling.
    c. Sanitizing the petcock by placing a sanitary plastic bag containing sanitizer over the petcock and pulsate the bag to force the sanitizer up into the opening.
    d. Pulsate the petcock, discarding approximately 2 liters onto the floor.
    e. Take sample, by placing the sample under a continuous flow of milk from the petcock.
    f. Fill vial(s) ¾ full.
    g. Rinse discarded milk, from floor, that occurred during “step d”.

3. Identify sample(s):
    a. Identify the lid of each vial with:
        i. Lot number.
        ii. Tank number.
4. Storage after sample is taken:
    a. Place identified sample in designated refrigerator immediately after samples are gathered.
        i. Designated refrigerator is located in OPDC metal storage room.

Milking Cows

Reference: Milking Conditions, Item 3
Risk Reduction: Consistently milk of all cows cleanly, meet and exceed all Grade A standards for raw milk for human consumption, properly care for udders and teats, and prevent collection of contaminated milk
Frequency: 24 hours a day, 7 days a week
Remediation: If this procedure is suspected to be inadequate, investigate root causes of cross contamination and revise the SSOP and infrastructure for its implementation
Procedure: Follow the procedures below

1. Wash cows
    a. Both holding pens are equipped with concrete pads, fresh water supply tanks with booster pumps, sprinkler pens and water drainage systems
    b. Proper washing of all cows is essential of manure removal from the udder
    c. Wash all cows in the sprinkler pen for approximately 5 minutes
    d. If sprinkler pen does not adequately clean udders, wash each cow as she walks out of the sprinkler pen with a 50 PSI 1" water hose (high pressure) to ensure adequate cleanliness
    e. When the cows enter the barn, be sure to wash the floor again to prevent possibilities of contamination if machine unintentionally falls on floor
2. Udder preparation
    a. All washed cows must drip dry prior to entering the milk barn
        i. If an udder is still not clean after the previous 2 washings, wash with the provided hoses again
            1. *Be sure to thoroughly dry the udder so no water drips into the milk machines*
    b. Apply ample amounts of pre-dip to each functioning teat
    c. Strip clean each teat
        i. To stimulate milk let down
        ii. To check for mastitis and other abnormalities
    d. Hand wipe the udder and teats 3 times
        i. Once by the first Milker to clean the udder, all teats
        ii. Again by the second Milker to ensure cleanliness
        iii. Lastly by the Quality Assurance Milker to ensure cleanliness of the teat, udder and finally wipe the inside of the hind legs
            1. *In that order, always udder then legs, never legs then udder*
    c. Only clean towels are to be placed in aprons while prepping udders.
        i. Milkers are NEVER to put dirty towels in the pocket of an apron.
        ii. Machine application, milking and post-milking
    e. Apply the machine carefully to ensure no contact with the legs or floor

        i. If a milking a 3 titter, be sure to wrap the unused teat claw so no vacuum is lost and the claw does not come in contact with floor or legs
    f. While milking, immediately wash floor if cow drops manure
        i. Be sure not to directly spray machine while cleaning manure
        ii. Keep machines dry during milking and anytime vacuum clamp is open
    g. Listen for air suction, fallen machines and watch milk
        i. Under no circumstances should all three Milkers leave the milking parlor at the same time while cows are being milked
        ii. Vacuum pressure should always be 12.5
    h. Remove machines when the milking is completed
        i. Do not over milk the cows as it can cause mastitis and increases somatic cell count
    i. Apply ample amounts of post-dip to teats
3. Care for cows
    a. Cut all tails that reach the milk machine
        i. Never cut too high to injure the cows tail, hair cut only
    b. Shave all hairy udders
    c. Apply udder balm as needed
    d. Inject with Oxytocin when cows do not let down or retain placenta
    e. Note all cows with injury and tell Dairy Manager immediately
        i. Use the dry-erase board, write notes on checklists, and also communicate with the Dairy Manager
    f. Assure green bands are on fresh cows, red on hospital cows with mastitis, yellow and 3 teater and salty, blue on Staph A cows
    g. See Herd Health Program SSOP and Fresh Cow SSOP for more information on caring for cows
4. Care for machines during milking
    a. Hang milk machines low when washing them after each milking
    b. Hand wipe all milk claws after milking to ensure the air vent is clean
        i. The air vent is a critical part of the milk machine to function properly, but can also suck in bacteria
        ii. No water should be used to clean air vent
    c. Lastly, hang the machines high with the air vent facing horizontal
        i. Not vertical which could allow bacteria to gravity fall into the milk machine
    d. If a machine falls to the floor during milking
        i. Immediately cut off the vacuum
        ii. Remove the milk hose and wash out the milk claw
5. Swapping milk tanks in the middle of the shift or post milking
    a. Reduce the possibilities of milking machines falling off due to lack of vacuum
        i. Also, do not let the milk tank overfill
    b. Only swap out milk tanks between group changes or when cows are not being milked
    c. Prior to restarting milking, double check that the milk hose is properly connected to the milk tank with the valve open.

6. Abnormalities in the milk

a. Colostrum in milk cows
    i. If the Veterinarian's pregnancy check was inaccurate or if Dairy Manager failed to dry off a cow in time, it is possible to milk a cow past her dry off date
        1. This is very bad for the cow as she does not properly generate colostrum and significantly reduces milk volumes in subsequent lactation
    ii. Immediately dry cow off and notify Operations Manager
b. Blood or mastitis
    i. Milk the cow into a mastitis bucket and discard
c. Record the cow number and communicate with Dairy Manager