

STANDARD OPERATING PROCEDURES (SOP)

FROM FARM TO PROCESSING PLANT

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INTRODUCTION

Inside this Standard Operating Procedures (SOP) booklet are sections dealing with producers, transporters, and processors responsibilities for effective, efficient, and standardized pickup, delivery and receiving of New Brunswick raw milk. These procedures were created with the assistance of producer, transporter, processor and government representatives. The following documents were utilized in the preparation of the SOP: Dairy Farmers of New Brunswick's (DFNB) Board Orders; the *Natural Products Act* [Natural Products Act](#) and Regulations under this *Act*; and New Brunswick Farm Products Commission (FPC) Orders. The SOP is a supplementary document to provide detailed information and a reminder of the requirements that are or are not covered in the above listed Acts and regulations. For more information or a more thorough list of requirements please refer to the above Acts and regulations. This document in no way replaces or takes precedence over the *Natural Product Act*, and Regulations under the *Act*, Farm Products Commission Orders or DFNB Board Orders.

To become and continue to be a licensed Producer, a Producer must have their facility inspected and approved for shipping milk by inspectors appointed under the Farm Products Commission. The inspection covers a list of items which need to be on site and maintained. It is the responsibility of the Producer to ensure all aspects of their facility meet the requirements under the *Milk Quality Regulation* and the Producer's Canadian Quality Milk Program.

A Bulk Tank Milk Grader (BTMG), hereby referred to as a Driver, is provincially licensed by the New Brunswick Farm Products Commission to properly measure, collect samples, and grade the quality of the raw milk. Standard Operating Procedures were created to ensure all BTMGs/Drivers follow the same procedures.

A Processor must have their facility inspected and approved for processing milk by the Canadian Food Inspection Agency and/or the New Brunswick Department of Health. It is the responsibility of the Processor to ensure that all aspects of their facility meet regulations and orders.

A Bulk Milk Grader (BMG), hereby referred to as a Receiver, is provincially licensed by the New Brunswick Farm Products Commission to properly collect samples and grade the quality of the raw milk. A BMG/Receiver not provincially licensed by the Farm Products Commission is not permitted to reject milk at the processing plant.

PRODUCER

Farm Driveways

- 1 All driveways must be approved by a representative of Dairy Farmers of New Brunswick.
- 2 Farm driveways and yards must be kept free of an accumulation of manure or contaminants such as run off silage, be kept in good repair, free of potholes and ruts. Contact a supervisor if contamination is present, who will then inform a Department of Health inspector.
- 3(1) Cars, farm implements and other items must not be located or parked in that portion of the yard and driveway which is traveled by the milk truck during milk collection.
- 3(2) Livestock may be driven across but must not have unlimited access to that portion of the yard and driveway traveled by the milk truck, providing there is not an accumulation of manure.
- 3(3) The driveway entrance must be such that it provides a safe and reasonable access for any type of milk truck operating in the area.
- 3(4) In winter conditions, the portion of the driveway and yard that the milk truck travels must be cleared of snow. **Ice surfaces must be salted or sanded.**
- 4(1) The traveled portion of the driveway and yard area should be free of wires and tree branches to a height of 14 feet. Ice and snow buildup should be taken into consideration when determining the height.
- 4(2) All driveway edges, bridges and culverts should be clearly marked and identified.

Note: ➔ Please see Driveway Policy in Appendix

Milk House

- 5(1) The milk house must be maintained in good repair and kept clean and orderly to allow the driver to walk freely around the inside of the milk house.
- 5(2) The driver shall have access to a sink that has mixing taps that supply hot and cold water. The sink and surrounding area must be kept clear of all objects.
- 5(3) There must be an ample supply of single service paper towels and liquid soap that is within close proximity to the sink.
- 5(4) The milk house must have adequate lighting, with shatterproof covers or coatings, to allow the driver to accurately read the dipstick or sight glass.
- 5(5) The milk house must have potable water and a pressurized water hose with a nozzle for the rinsing and/or cleaning of the farm bulk tank.
- 5(6) Milk houses must have a grounded electrical outlet that is above the hose port and is controlled by a bipolar switch located on the interior wall of the milk house in a location accessible to the bulk tank milk grader and meet the NB Electrical Code.

Farm Bulk Tank

- 6(1) A farm bulk tank shall be installed in a milk house and be used exclusively for the storage and cooling of raw milk to be used for human consumption.
- 6(2) A farm bulk tank shall be calibrated by a DFNB approved calibrator in order to provide an accurate measurement of the raw milk.
- 6(3) A **Producer** shall schedule a visit by the calibrator, for the purposes of performing the calibration, within 21 days of notification being given to the producer by Dairy Farmers of New Brunswick.
- 6(4) A farm bulk tank shall be rechecked for accuracy by a DFNB approved calibrator every five years or as determined by the Farm Products Commission or DFNB.
- 6(5) A farm bulk tank that is moved or has moved for any reason shall be recalibrated by a DFNB approved calibrator.
- 6(6) The serial number on the dipstick, farm bulk tank and conversion chart must match and the conversion chart address must be specific to the farm address. If the serial numbers and/or the addresses do not correspond, call Dairy Farmers of New Brunswick at once.
- 6(7) The producer must ensure the farm bulk tank is cleaned and sanitized after every milk pick-up.
- 6(8) A producer shall ensure the bulk tank is equipped with an outlet cap.

Assistance or Concerns

- 7 If a **Producer** has any concerns or are in need of assistance, contact Dairy Farmers of New Brunswick at the office phone number (506) 432-4330. An answering service is available at all times.

BULK TANK MILK GRADER (BTMG)/DRIVER

- 8 A **Driver** shall:
 - (a) wear clean clothing while performing their duties.
 - (b) wear a waterproof dressing over any open lesion to prevent the contamination of the milk.
 - (c) ensure that their hands are clean before handling or touching equipment.
- 9(1) Inspect the exterior of the tanker for any leaking product or objectionable odor that would indicate a crack in a compartment.
- 9(2) Verify that all tank seals on the manhole covers, the CIP connection points, and the rear compartment doors are in place and show no evidence of tampering. Verify the tank seal serial numbers recorded in the Tank Sealing Logbook from the previous run or day correspond to the serial numbers on the seals attached to the milk tank.

Note → See Seal Policy in Appendix

- 9(3) If, at any time, the **Driver** finds that a tank seal has been broken without their knowledge or that a seal is missing, they must notify their supervisor immediately. Do not pick-up or deliver any milk until instructed by your supervisor.
- 9(4) Break the tank seal on the rear compartment doors and record this action in the Tank Sealing Logbook.
- 9(5) Inspect the pump compartment of the milk tank to ensure that it has a licence number issued by the New Brunswick Farm Products Commission. If a licence number is not present, contact your supervisor.
- 9(6) Inspect the exterior of the milk hose assembly, valves, and pump.
- 9(7) Ensure there are enough sample bottles for sample collections for the day.
- 9(8) Ensure the sample bottles are kept in a clean container or bag in the milk truck.
- 9(9) Ensure there are enough seals for the route(s) for the day.
- 9(10) Have an insulated sample box, plastic bag, and ice for the samples to be stored.
- 9(11) Have a food grade thermometer that has been calibrated within the last year or as required.
- 9(12) Have a Bulk Milk Pickup Logbook/Handheld Unit, a Tank Sealing Logbook, and a Driver Logbook if necessary.
- 9(13) Ensure the tanker has been washed within the last 72 hours.
- 10 If any of the above requirements are not met, the **Driver** must contact their supervisor immediately.

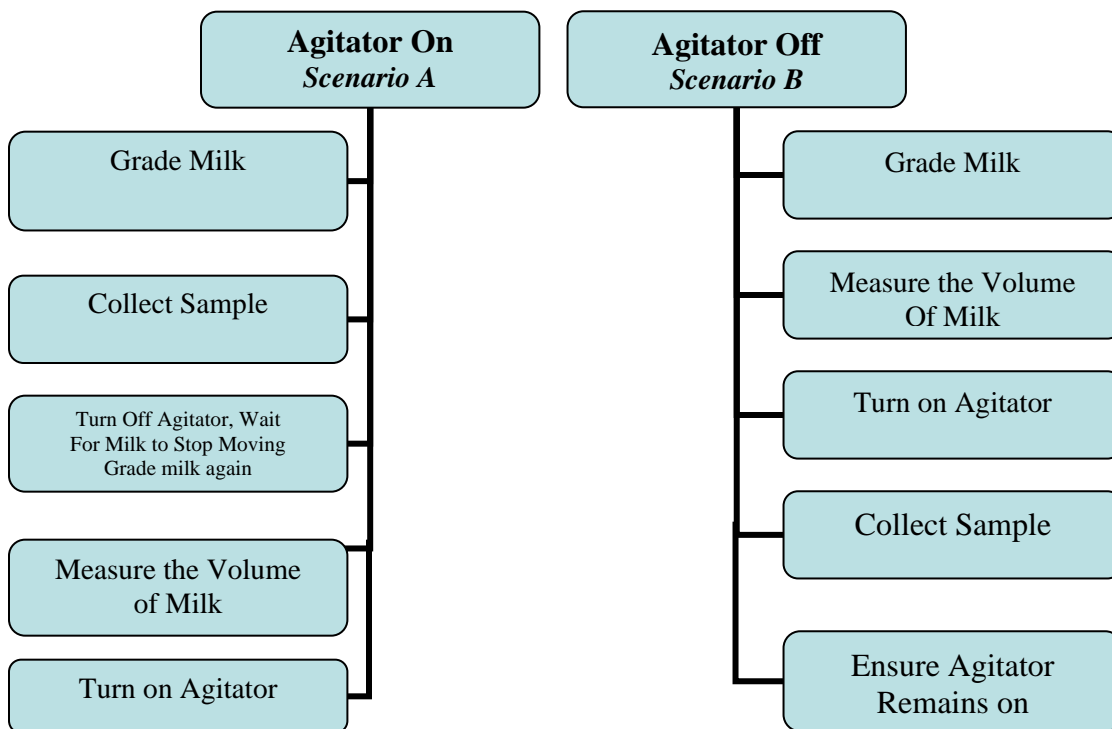
Farm Pickup

- 11(1) As soon as the **Driver** has entered the milk house, he/she must open the cover of the farm bulk tank and grade the milk.
- 11(2) A **Driver** shall reject milk in a farm bulk tank if it:
 - (a) Is not sweet or clean
 - (b) Exhibits abnormal odors or appearances
 - (c) Contains foreign matter including insects, flies, or vermin
 - (d) Contains melted fat or, to his or her knowledge at the time, an unnatural inhibitor
 - (e) Shows evidence of being watery, flaky, stringy, bloody, ropy thick, coagulated, adulterated, or unsanitary
 - (f) Cannot be agitated
 - (g) Cannot be sampled
 - (h) Has a temperature that exceeds 4 degrees Celsius one hour after milk was added to the farm bulk tank
 - (i) Has a temperature that exceeds 10 degrees Celsius
 - (j) Is otherwise not of good quality

If at any time the milk is to be rejected, follow standard procedures for rejecting milk as listed in section 12(8).

Close the cover of the farm bulk tank.

- 11(3) The **Driver** must verify that the serial numbers on the dipstick, the farm bulk tank, and the conversion chart match, and ensure the conversion chart address is specific to the farm address. If the serial number and/or address do not match call your supervisor for further instruction (see attached contact sheet).
- 11(4) The **Driver** must follow either Section 12 (Scenario A) or Section 13 (Scenario B) depending on whether the agitator is on or off.



Milk Sampling (Agitator on)

- 12(1) Let the agitator run for 5 minutes or longer as required, or until the automatic cycle ends. Should the agitator stop, restart it as soon as possible.
- 12(2) While waiting for the agitation of the milk to end:
- Wash hands and dry with single service paper towels.
 - Rinse a food grade thermometer under cool potable water and wipe dry with a single service paper towel.
 - Before plugging hose to bulk tanks, using the food grade thermometer verify the temperature of the milk in the farm bulk tank and record the temperature in the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit. The milk should be less than 4 degrees Celsius.

- (d) Place the receiving hose and electrical cord through the hose port. Check to ensure the valve cap is on the bulk tank and once removed the connection area is clean. Connect to the valve outlet (do not open valve at this time).
- (e) If milk has been added to the farm bulk tank less than one hour before a temperature reading and the temperature of the milk exceeds 4 degrees Celsius, a **Driver** shall take a second temperature reading of the milk after a full hour has passed from the time the milk was added to the farm bulk tank.
- (f) Rinse the food grade thermometer under cool potable water, wipe dry with a single service paper towel and replace it in the thermometer holder.
- (g) After a minimum of 5 minutes of agitation collect 1 sample, or as otherwise directed, by performing the following procedures:
- (h) Attach an individual DFNB bar code label on top of sample bottle and place a blank label to the side indicating the date and Driver's initials.

*Note → The **Driver** will obtain two samples from the first producer's milk to be picked up. One sample shall be labeled with Control X, the date of collection, and the Driver's initials. Do not put producer's sticker number on the cap of this sample, use a blank label.*

- (i) Rinse sample bottle holder under hot potable water and dry with a single service paper towel.
- (j) Attach sample bottle to bottle holder.
- (k) Open the cover of the farm bulk tank.
- (l) Open the sample bottle cover with one hand, be careful not to contaminate the inside of the cover.
- (m) With the other hand, sample the milk by scooping the bottle through the milk. It is critical that the bottle be moved in one direction while it is immersed in the milk.
- (n) *Immediately following collection, place the cover on the sample bottle making sure that the cover is tight and does not leak.*
- (o) Carefully rinse the capped sample bottle and holder under cold potable water.
- (p) Remove the sample bottle from the bottle holder and dry with a single service paper towel.
- (q) Rinse bottle holder under hot potable water and dry with a single service paper towel.
- (r) Once samples have been collected, they are to be kept **clean, dry and under 4C (40F)** until delivered to the plant.

Note → Samples are required to be transported in the inserts and coolers provided by DFNB. If cooler is not available use ice and plastic bags. If the ice melts drain the water off the samples. Samples must be kept between 0 and 4 degrees Celsius until delivered to the dairy plant. It is required that samples be kept in a plastic bag.

Note → Samples are the property of the Farm Products Commission (FPC) and are not to be utilized for any reason unless directed.

12(3) After the above tasks have been completed turn off the agitator.

12(4) Wait a minimum of 5 minutes or longer as required for the milk to stop moving.

12(5) Grade the milk again. If the milk is rejected go to section 12(8) otherwise proceed to the next step.

12(6) Measure the volume of the raw milk in the farm bulk tank by either following method A (dipstick) or method B (sight glass):

(a) **Dipstick** measurement:

- i. Partially remove the dipstick from the farm bulk tank.
- ii. Wipe dipstick dry with clean single service paper towel in the area where the milk is to be measured.
- iii. Gently insert dipstick into farm bulk tank until seated in the dipstick holder. Withdraw slowly, note measurement, wipe dry with single service paper towel, and repeat. When there are two (2) identical readings, record measurement on the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.
- iv. Convert the dipstick reading into liters using the conversion chart and record the liters equivalent on the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.

(b) **Sight Glass** measurement:

- i. If, on arrival, the sight glass is full of milk, close the valve to the sight glass and disconnect the hose allowing all contents to drain. The sight glass should then be rinsed with potable water, from the top down and allowed to drain prior to measurement.
- ii. Make sure the top of the sight glass is open and not obstructed.
- iii. Connect the tube at the bottom of the sight glass to the valve on the farm bulk tank.
- iv. Open the valve to the sight glass allowing the raw milk to slowly climb. Should there be any foam or the milk is not visible, discard the contents and start the sight glass measurement again at subsection (i).
- v. Once the milk line is clearly visible, move the level finder to the bottom of the milk line (meniscus) and record the measurement off the attached dipstick on the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.

- vi. If there is difficulty in reading the measurement, the sight glass tube can be carefully heated using hot potable water.
 - vii. Convert the dipstick reading into liters using the conversion chart and record the liters equivalent on the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.
- 12(7) Turn the agitator back on. (Agitator must be running while milk is pumping until the agitator is visible then turn off the agitator).
- 12(8) If the milk is rejected, obtain two samples, or as directed, by following the procedures listed in Section 12(2)(g) and put them in the sample box; if you cannot agitate the milk, take a sample without the agitation step.
- 12(9) Should the milk be rejected due to foreign objects, insects, butter, etc., try to take an additional sample of the object using a sample bottle. Identify the bottle using a label with the date and initial of the Driver.
- 12(10) Notify the producer of the rejection of the milk. The **Driver** shall fill out a "RED" rejection ticket and attach it to the valve of the bulk tank that is rejected.
- 12(11) Notify the Dairy Farmers of New Brunswick and inspector of the rejection and record on the Producer's Bulk Milk Collection Record sheet and on the Bulk Milk Pickup Logbook/Handheld Unit that the milk was rejected and the reason for rejection.

Milk Sampling (Agitator Off)

- 13(1) Turn off the agitator to ensure the agitator will not start while measuring the volume of milk.
- 13(2) Place the receiving hose and electrical cord through the hose port. Check to ensure the valve cap is on the bulk tank and once removed the connection area is clean. Connect to the valve outlet (do not open valve at this time).
- 13(3) Wash hands and dry with single service paper towels.
- 13(4) Ensure the milk has stopped moving. Measure volume of the milk in the farm bulk tank by either following method A (dipstick) or method B (sight glass):
- (a) **Dipstick** measurement:
 - i. Partially remove dipstick from the farm bulk tank.
 - ii. Wipe dipstick dry with clean single service paper towel in the area where the milk is to be measured.
 - iii. Gently insert dipstick into farm bulk tank until seated in the dipstick holder. Withdraw slowly, note measurement, wipe dry with single use paper towel, and repeat. When there are 2 identical readings, record measurement on the Producers Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.

- iv. If there is difficulty in reading the measurement, the dipstick can be carefully heated using hot potable water.
- v. Convert the dipstick reading into liters using the conversion chart and record the liters equivalent on the Producers Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.

(b) **Sight Glass** measurement:

- i. If, on arrival, the sight glass is full of milk, close the valve to the sight glass and disconnect the hose allowing all contents to drain. The sight glass should then be rinsed with potable water, from the top down and allowed to drain prior to measurement.
- ii. Make sure the top of the sight glass is open and not obstructed.
- iii. Connect the tube at the bottom of the sight glass to the valve on the farm bulk tank.
- iv. Open the valve to the sight glass allowing the raw milk to slowly climb. Should there be any foam or the milk is not visible, discard the contents and start the sight glass measurement again at subsection (i).
- v. Once the milk line is clearly visible, move the level finder to the bottom of the milk line (meniscus) and record the measurement off the attached dipstick on the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.
- vi. Convert the dipstick reading into liters using the conversion chart and record the liters equivalent on the Producers Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit.

13(5) Once all measurement SOPs have been successfully completed and all information has been recorded, turn on the agitator and let it run for 5 minutes or longer as required, or until the automatic cycle ends. Should the agitator stop, restart it as soon as possible.

13(6) While the milk is agitating:

- (a) Rinse a food grade thermometer under cool potable water and wipe dry with a single service paper towel.
- (b) Using the food grade thermometer verify the temperature of the milk in the farm bulk tank and record the temperature in the Producer's Bulk Milk Collection Record sheet and Bulk Milk Pickup Logbook/Handheld Unit. The milk should be less than 4 degrees Celsius.
- (c) If milk has been added to the farm bulk tank less than one hour before a temperature reading and the temperature of the milk exceeds 4 degrees Celsius, a **Driver** shall take a second temperature reading of the milk after a full hour has passed from the time the milk was added to the farm bulk tank.

- (d) Rinse the food grade thermometer under cool potable water, wipe dry with a single service paper towel and replace it in the thermometer holder.

13(7) After 5 minutes of agitation or as long as required by the tanks manufacturer, prepare to take a sample.

13(8) Collect 1 sample or as otherwise directed, by performing the following procedures:

- (a) Attach an individual DFNB bar code label on top of sample bottle and place a blank label to the side indicating the date and Driver's initials.

Note → The Driver shall obtain two samples from the first producer's milk to be picked up. One sample shall be labeled with Control X, the date of collection, and the Driver's initials. Do not put producer's sticker number on the cap of this sample, use a blank label.

- (b) Rinse sample bottle holder under hot potable water and dry with single service paper towel.
- (c) Attach sample bottle to bottle holder.
- (d) Open the cover of the farm bulk tank.
- (e) Open the sample bottle cover with one hand being careful not to contaminate the inside of the cover.
- (f) With the other hand sample the milk by scooping the bottle through the milk. It is critical that the bottle be moved in one direction while it is immersed in the milk.
- (g) Immediately following collection place the cover on the sample bottle making sure that the cover is tight and does not leak.
- (h) Carefully rinse the capped sample bottle and holder under cold potable water.
- (i) Remove the sample bottle from the bottle holder and dry with a clean single service paper towel.
- (j) Rinse bottle holder under hot potable water and dry with a single service paper towel.
- (k) Immediately place the sample bottle in the inserts and coolers provided by DFNB. If cooler is not available put sample in a plastic bag that is in the sample box with ice.

Note → If the ice melts drain the water off the samples. Samples must be kept between 0 and 4 degrees Celsius until delivered to the dairy plant. It is required that the samples be kept in a plastic bag.

Note: → Samples are the property of the Farm Products Commission and are not to be utilized for any reason unless directed.

13(9) Make sure the agitator is still running prior to the next step.

Transfer of Raw Milk

- 14(1) If the milk has been accepted and all quality and measurement SOPs have been successfully completed and all information has been recorded, pump the milk into the tanker.
- 14(2) Shut off the agitator once the agitator is in sight.
- 15(1) When satisfied that all the milk has been pumped into the tanker, stop the pump. Look into the farm bulk tank to verify the producer's farm bulk tank is empty.

Note → *Caution must be taken not to run the pump dry.*

- 15(2) Unhook the hose and electrical cord and put into the hose compartment.
- 15(3) Rinse the farm bulk tank with the water hose using cold or warm potable water.
- 16(1) At the last farm of the day, after finished pumping the milk, reseal back doors of the tanker and record tank seal serial number in the Tank Sealing Logbook.
- 16(2) If at any time before the last farm of the day, the milk truck is out of sight of the **Driver**, reseal the back doors of the tanker and record the tank seal serial number in the Tank Sealing Logbook.
- 16(3) If, at any time, the **Driver** finds that a tank seal has been broken without their knowledge or that a seal is missing, they must immediately notify their supervisor. Do not pick-up or deliver any milk until instructed by your supervisor.
- 17(1) Any unusual situations or loss of milk must be recorded in the Bulk Milk Pick-up Logbook/Handheld Unit and your supervisor must be contacted.
- 17(2) If the **Driver** observes that a farm bulk tank has shifted, the legs of the farm bulk tank are damaged or broken, and/or the cement holding the farm bulk tank legs has deteriorated, record it in the Bulk Milk Pick-up Logbook/Handheld Unit and notify Dairy Farmers of New Brunswick (506-432-4330).
- 17(3) If there are any questions or problems contact your supervisor immediately (see attached contact sheet).

Driver and Bulk Milk Grader/Receiver

Plant Receiving Bay

- 18(1) The plant receiving bay is the property of the processing plant and, as such, the **Driver** must respect this property, the equipment, and the rules of that plant. Under no circumstances should a **Driver** turn the receiving pump on manual or adjust, move, or loosen any part of the receiving system including the vent on the air eliminator tank.
- 18(2) The "Fall Arrest Policy" is in effect. No person shall climb on top of a tanker without wearing a fall arrest harness attached to a safety cable.
- 18(3) If a **Driver** has any questions or problems with the receiving bay equipment speak to the **Receiver**.

Driver

- 19(1) After arriving at the designated processing plant the **Driver** is to contact the **Receiver** by whichever communication system is in use at the plant receiving bay (i.e., phone, buzzer, etc.).
- 19(2) The **Receiver** will give the **Driver** clearance to back the milk truck into the receiving bay.
- 19(3) The **Driver** will ensure the milk truck is unable to move (the wheel chock, if present, is in place or the milk truck is parked firmly against the curb).
- 19(4) The **Driver** will rinse off the back (rear) of the tanker.

Receiver

- 20(1) Prior to accepting the milk in a tanker, the **Receiver** is to carry out the following procedures:
 - (a) The **Receiver** will inspect the exterior of the tanker for any leaking product or objectionable odour that would indicate a crack in a compartment.
 - (b) The fall arrest harness must be worn and securely fastened before climbing on to a milk truck.
 - (c) Verify that the tank seal serial numbers on all access points match the serial numbers in the Tank Sealing Logbook and sign the Tank Sealing Logbook. Maintain a copy for your files. Break and dispose of tank seals. If any of the serial numbers do not match or any tank seals are broken, missing, or improperly installed, notify your supervisor immediately. Do not continue with the standard operating procedures.
 - (d) Using the hose available, rinse the exterior of both compartment covers to remove any debris before opening.
 - (e) Inspect the pump compartment of the tanker to ensure that it has a licence number issued by the New Brunswick Farm Products Commission. If a licence number is not present, contact your supervisor.
 - (f) When opening the compartment covers, check condition of vent, manhole cover and gasket to ensure they are clean and in good condition (no cracks in gasket, no flaking rubber, etc.). If any are noted, report observation to the driver, your supervisor and make a note on the Bulk Milk Pickup Slip/Handheld Unit.
- 21(1) Each processor may have their own additional quality standards that must be met before milk is received.
- 21(2) Use a food grade thermometer to check the temperature of the milk in both compartments. Milk will be accepted up to 6 degrees Celsius.

21(3) Grade milk in the tanker. A **Receiver** may reject milk if it:

- (a) Is not sweet or clean
- (b) Exhibits abnormal odors or appearances
- (c) Contains foreign matter including insects, flies, or vermin
- (d) Contains melted fat or, to his or her knowledge at the time, an unnatural inhibitor
- (e) Shows evidence of being watery, flaky, stringy, bloody, ropy, thick, coagulated, adulterated, or unsanitary
- (f) Cannot be sampled
- (g) Has a temperature that exceeds 6 degrees Celsius
- (h) Is otherwise not of good quality

21(4) After the **Receiver** grades the milk in the tanker, take samples from both tanker compartments for antibiotic and quality testing, as per the following procedures:

- (a) Mark the bottles with the date, the route number, the tanker number, and compartment, if applicable, and which compartment the samples are from (the front or back compartment). Rinse sample bottle holder under hot potable water and dry with single service paper towel.
- (b) Attach sample bottle to bottle holder.
- (c) Open the sample bottle cover with one hand being careful not to contaminate the inside of the cover.
- (d) With the other hand sample the milk by scooping the bottle through the milk. It is critical that the bottle be moved in one direction only while it is immersed in the milk.
- (e) Immediately following collection place the cover on the sample bottle making sure the cover is tight and does not leak.
- (f) Carefully rinse the capped sample bottle and holder under cold potable water.
- (g) Remove sample bottle from bottle holder and dry with clean single service paper towel.

21(5) If the milk is rejected, a **Receiver** shall contact their supervisor.

21(6) If the milk is rejected, a **Receiver** shall record information on a standard rejection form and follow procedure for contacting all stakeholders.

Note→ If the milk is rejected for any reason, please see Milk Rejection Policy in Appendix

22 As soon as possible the **Driver** records the temperature of the control milk sample in the plastic bag. If there are any other issues with the samples record it on the Milk Sample Recording Sheet.

23(1) The **Driver** must NOT carry out any actions until he or she receives notification from the **Receiver** that they may proceed with their standard operating procedures.

23(2) The **Driver** must verify all the covers on top of the compartments are open.

- 24 Once the raw milk in the tanker has met all grading and quality testing standards, the Receiver will verbally notify the **Driver** that the milk has been accepted. The **Receiver** will then carry out the following procedures for unloading the tanker:
- a) Ensure the correct silo is selected, that all connections on the receiving system are tight to avoid air incorporation, and the receiving pump is selected to Auto.
 - b) Ensure no Teflon seals are used in the receiving hose. Connect the receiving hose to the tanker, when satisfied all connections from the tanker to the receiving system are tight open the valves on the tanker.
- 25(1) At this time the **Driver** may disassemble and place the pump impeller, pump body, plate, O-ring, and seal in the sink and clean with the provided brush using a mixture of chlorinated soap and hot water. After washing all parts, rinse and sanitize.
- 25(2) The **Driver** is to wait for approval by the **Receiver** that the tanker is empty of milk, then visually inspect the tanker to ensure all milk has been unloaded before beginning cleaning procedures. **Drivers** are not permitted to be on top of the tanker nor allowed to wash around the tanker unless approved by the receiving bay.
- 25(3) The **Driver** is to ensure gaskets are used in CIP connections to prevent loss of water or solution. Make connections for supply and return CIP lines.
- 26 Once the **Driver** has connected the CIP lines, the **Receiver** will start the automated CIP cycle.
- 27 The **Driver** or **Receiver** records the total metered litres in the Bulk Milk Pickup Slip/Handheld Unit and both the **Driver** and **Receiver** must sign on the designated line.
- 28 As soon as the CIP cycle has begun, the **Driver** may begin cleaning the tanker and milk truck by the following procedures:
- (a) Follow posted plant colour coding system for cleaning supplies and equipment. Contact the **Receiver** if unsure of colour coded system.
 - (b) Hand wash the manhole gasket, vent and manhole cover with the provided brush using a mixture of chlorinated soap and hot water.
 - (c) If not already done disassemble and place the pump impeller, pump body, plate, o-ring, and seal in the sink and clean with the provided brush using a mixture of chlorinated soap and hot water. After washing all parts, rinse and sanitize.
 - (d) Spray the pump and impeller with an approved sanitary lubricant and reassemble equipment.

Note → Please see CIP Verification Procedure in Appendix

- 29(1) After the tanker CIP cycle is complete, ensure the CIP cycle functioned as required. Visually inspect both compartments for cleanliness to ensure the tanker washed properly.

- 29(2) The **Driver** shall check the condition of the vent, the manhole cover, and the gasket to ensure they are clean and in good condition (no cracks in gasket, no flaking rubber, etc.). If any are noted, report your observation to your supervisor.
- 30 Close all manhole covers, the CIP line cap and both compartment doors. Record the tank seal serial numbers in the Tank Sealing Logbook and attach seals to the manhole covers, the CIP connection points, and the rear compartment doors.

PROCESSOR

Ice and Fridge

- 31 The **Processor** is responsible for providing ice for the Driver's insulated sample box, a storage space for sample bottles and a fridge to keep samples between 0 and 4 degrees Celsius.

Preventive Maintenance of Receiving System

- 32(1) The **Processor** is responsible for all cleaning, preventive maintenance, and calibration of the receiving system.
- 32(2) Gasket replacement and inspection of the receiving system must be carried out a minimum of once per year.
- 32(3) Calibration of the receiving system and meter must be carried out a minimum of once per year.

APPENDICIES

FARM DRIVEWAY POLICY

Introduction

One of the highest operating costs on a dairy farm after feed and hired help, is transportation. The New Brunswick Milk Marketing Board administers all raw milk direction in New Brunswick, which helps maintain the cost of transportation. However, it is the responsibility of every milk producer to ensure that there is a practical and safe environment for all bulk milk trucks which may access your driveway for the purpose of hauling raw milk. This policy standards booklet is designed to minimize risk and ensure safety along the driveway and around the milk house area on all dairy farms. It is for these reasons that the Board has developed the following requirements for farm driveways.

Driveway construction standards and clearance guidelines

The provisions set forth in this section of the policy are guidelines and may be enforced for safety or to facilitate milk pickup. Producers may be required to comply with any or all of the provisions in this section. Each case will be assessed on its own merit.

Driveway Entrance

NOTE: A permit may be required from your local municipality prior to any major alteration to the driveway entrance.

The driveway entrance must be such that it provides a safe and reasonable access for any type of bulk milk truck operating in the area. If the type of vehicle used to pick up a producer's milk changes, then the driveway entrance will be able to accommodate the new vehicle type.

The standard for a driveway entrance was established for rural municipalities with a road allowance of 66 feet.

At a point where the driveway intersects with the road, the width of the driveway must be 50 feet. This is required in order that the bulk milk truck does not have to swing across the center line and into oncoming traffic in order to enter the driveway.

The driveway entrance should taper from the shoulder of the road, so that at a point of 40 feet in from the edge of the travelled portion of the road, the width of the driveway is 16 feet. The length of any necessary culvert will be dependent on the ditch location with respect to the driveway entrance.

Driveway Construction

An example of the type of construction that might be used for building a driveway or turnaround area is shown on the last page. However, the amount of natural drainage will determine if more, or less granular material is required compared to the specifications shown in example.

**Driveway
Bridges**

All bridges and culverts should be clearly identified. Where a driveway meets a bridge, the weight-bearing capacity of the bridge should be displayed.

**Fences Along
Driveway**

A gate of any type which requires opening and closing by the bulk milk truck driver in the process of picking up the milk is not permitted under normal circumstances.

**Overhead
Objects**

The traveled portion of the driveway and yard area should be free of wires and tree branches to a height of 14 feet. Ice and snow buildup should be taken into consideration when determining the height.

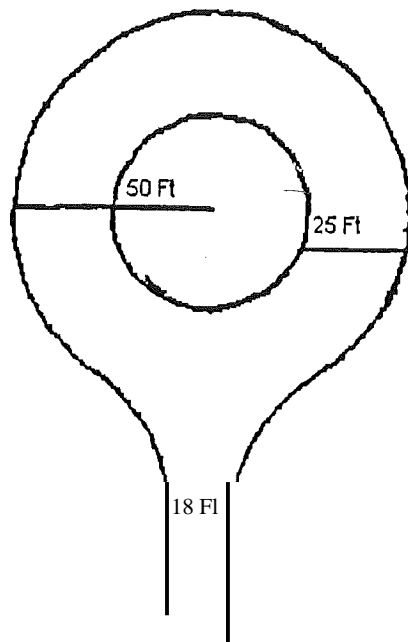
**Blocked
Access**

Cars, farm implements and other items must not be located or parked in that portion of the yard and driveway which is traveled by the bulk milk truck during milk collection.

Loading Area

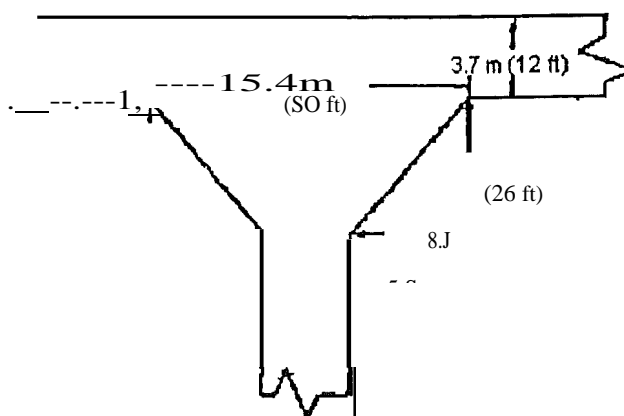
The area of the yard on which the bulk milk truck is parked while picking up the milk, must be level, free of mud and reasonably dry.

Example of a Circular Turnaround



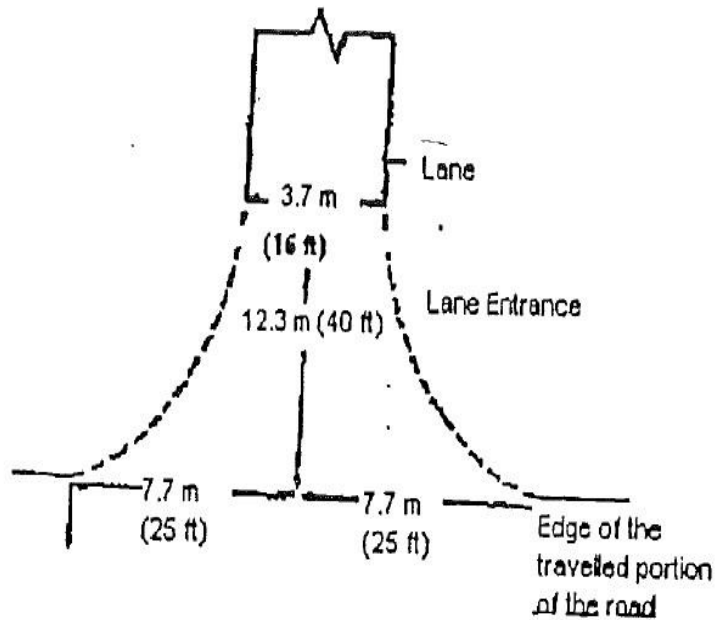
- 15 m (50 ft.)
- 7,5 m (25 ft.)
- 5,5 m (18 ft.)

Example of a Three Point Turnaround



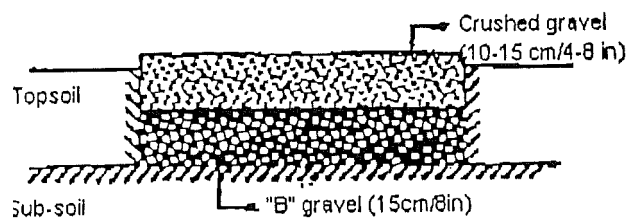
- 15,4 m (50 ft.)
- 3,7 m (12 ft.)
- 8,0 m (26 ft.)
- 5,6 m (18 ft.)

Example of a Driveway Entrance



5 m (16 ft.)
12,3 m (40 ft.)
7,7 m (25 ft.)
7,7 m (25 ft.)

Example of Cross Section of a Driveway or Turnaround.



1. Remove all topsoil
2. 15 cm of "B" or non-crushed gravel
3. 10-15 cm of "A" or crushed gravel

Crushed Gravel (10-15 cm/4-6 in.)
Gravel « B » (15 cm/6 in.)

Maritime Bulk Milk Tanker Sealing Manual

November 2005

Revised May 4, 2022

THE TANKER SEALING PROGRAM

The food processing and retailing industry is increasingly demanding that their raw materials be of the highest quality and free from any contamination. In the past, the dairy industry's reputation, and verbal assertions on their level of commitment was sufficient to maintain customer trust. However, today's buyers want and need more assurance. In addition, many processors have adapted Hazard Analysis Critical Control Points (HACCP) programs, or other similar programs, which require the sealing of all raw material trucks.

The goal of the **Tanker Sealing Program (TSP)** is to begin a process of increasing awareness of potential security risks while milk is in transit and to introduce methods to reduce the risk. No milk transporter will be able to protect the cargo against all possible risks. Reducing risk, however, can be achieved by anticipating or recognizing risks in the day-to-day operation and intervene, where possible, to decrease the risk to an acceptable level.

There are three basic principles with respect to the Tanker Sealing Program that Driver Graders must be cognizant of at all times:

- Seals must be on the vehicle whenever the truck is left unattended (out of sight) for some minutes.
- The following standards with respect to tank sealing have been established. The tanker can be sealed and re-sealed as often as necessary in any given work period but all sealing and breaking of seals must be recorded in the daily seal log sheet.
- All seals that are removed from a tanker during a continuous work period must remain with that truck. The removed seals will be disposed of by the Driver Grader at the end of the daily cycle for that truck.

Security and communications will be addressed in the balance of this document.

1. **Security**

1.1 **General Security “Rules of Thumb”**

- All transporter employees should be made aware, by the transport Manager/Supervisor, of the potential signs of tampering with the product or equipment, the areas that may be vulnerable to tampering, and what an unusual situation is. All transporter employees should always report any suspicious findings to their supervisor.
- Always evaluate any request for information about your task/operation. Never provide information without approval from your supervisor.
- A daily seal log sheet must be available for each load.

1.2 **Tanker Security**

- To ensure the security of milk in a tanker, seals must be used on all access points to the milk and/or milk contact surfaces, such as manholes, CIP connection points, and the pump/valve compartments. Transporters will be supplied with their provincial seals. Each seal will have a unique identification number, which must be recorded, as outlined below, on the daily seal log sheet.

1.3 Tanker Security

- It is the Driver Grader's responsibility to ensure that seals are attached to all required access points. A daily seal log sheet must be maintained at all times.
- The Driver Grader, during their vehicle inspection must check to verify all seals are in place and show no evidence of tampering and, the numbers on the seals correspond to the numbers that were entered in the daily seal log sheet.
- If, at any time, the Driver Grader finds that a seal has been broken without their knowledge or that a seal is missing, they must immediately notify their supervisor. **Do not pick up or deliver any more milk until instructed by your supervisor.**

1.4 Route Tanker Security

- At the start of the day if the Driver Grader is picking up milk, the Driver Grader breaks and removes the seal to the pump/valve compartment, to install the sample case, and notes this with the corresponding seal number, in the appropriate place on the daily seal log sheet.
- Any time the tanker is not in the control of the Driver Grader, e.g., out of sight, gone for a meal, in the depot, etc. all access points on the tanker must be secured with a seal.
- All Pumpover loads must be sealed at all access points before the load departs from the depot.
- Once the tanker arrives at the receiving location, authorized receiving personnel will compare the numbers on all the seals to the numbers in the daily seal log sheet and sign the sheet. Both the driver grader and the receiver must maintain a copy of the tanker daily seal log sheet.
- The receiver removes the seal at the receiving location (plant).
- Drivers should expect compliance spot checks.

2. Seals and Daily Seal Log Sheets

- The placement of seals on all access points reduces the risk of deliberate contamination of the milk during the various steps in the collection and delivery process. The goal is always to have all openings on the milk tankers sealed, except when the tanker is being loaded, unloaded, sampled, or washed.

Log Sheets

- A daily seal log sheet must always be kept with the tanker. The log sheet record will show the date, driver grader/receiver who installed/removed the seal(s), tanker numbers, and seal numbers. Recording seal numbers will provide a chain of custody for each delivery of milk.
- On multi-trip days the Driver Grader will leave the bottom copy of the daily seal log sheet at the first plant, the middle copy shall be left at the second plant and the top copy will be retained by the transporter.

2.2 Seal Placement

- Seals will be placed at the following access points on the tanker:
 - Manhole (s)
 - Pump/valve compartment
 - CIP wash line connection
- Seals are installed:
 - Immediately after CIP wash
 - After maintenance the tank must be washed before putting new seals
 - After last farm pick-up
 - If between the first and last farm pick up the Driver Grader is not in attendance or control e.g., washroom, coffee, or meal break
 - After seals have been broken by the Driver Grader for valid reason such as sampling or volume fullness check

2.3 Broken Seals

If a seal is broken, missing, damaged or does not correspond with the seal log, the following applies:

- If a seal is broken to complete a repair, maintenance, or inspection task (e.g., changing pump or motor, entering tank for inspection, etc.), the access points must be resealed after the task is done. The new seal number and the date/time it was installed must be recorded on the daily seal log sheet. The broken seal must be retained until the next load is delivered.
- If a seal is broken without any known cause, the transport supervisor must be notified immediately. If the tanker is:
 - empty – tanker must be re-washed (as instructed by supervisor) before the next milk pick-up and investigate as requested
 - full or partially loaded – milk is not to be unloaded, and the tanker must be identified. Driver Grader awaits further instructions
- There will be an investigation to determine if there is a known or probable cause for a missing or cut seal. If a logical explanation is forthcoming from the investigation, the processor where the load is being delivered will be given the option of accepting or rejecting the load.

3. Incident Response

If a tanker that contains milk has been identified as suspect contaminated, based on missing or broken seal(s), the following steps must be taken.

- Immediately notify the local transport company supervisor so that a further investigation can be completed as quickly as possible.
- If a suspect tanker is to be parked in a transporter depot or plant facility, identification of the suspect tanker must be clearly visible (e.g. markers, signs, etc.).
- Do not release any of the contaminated milk or milk samples until instructed by the transport supervisor.
- Keep all daily seal log sheets, and any broken seals until instructed by transport supervisor. Always maintain a copy of the daily seal log sheet with you.
- Do not attempt to identify any hazardous material by smell or touch. Reseal the tanker (if unsealed) and note the seal numbers.
- Keep all unauthorized persons away from the tanker.
- Transfer contents from the tanker only if instructed by transport supervisor.
- Confirm and record the location of transfer/disposal. Ensure sealing log is signed by a witness.

4. Standard Operating Procedures

The following standard operating procedures must be followed:

- Seals not in use must always be stored in a secure environment.
- It is the responsibility of the Driver Grader to ensure all broken seals are carefully discarded in waste bins, or recycled, at the end of the daily cycle.
- The transporter must keep daily seal log sheets for a period of six months.
- Transporters complete the attached Standard Operating Procedure (SOP) forms. These forms outline for transporter employees the step-by-step procedure that should be followed in sealing tankers and action to be taken with respect to suspected tampering.

Also attached is a copy of a sample checklist for compliance spot checks to evaluate whether transporters/Driver Graders are adhering to the proper procedures.

SOP # 1 -Standard Operating Procedure for Sealing Milk Tanker Access Points

To ensure that **milk is secure from tampering**, describe step by step the actions taken to seal a tanker.

Step 1 _____

Step 2 _____

Step 3 _____

Step 4 _____

Step 5 _____

Step 6 _____

SOP #2 - Standard Operating Procedure for Suspected Contaminated Milk

To ensure that **any contaminated milk is not accidentally added to the system**, describe step by step, the various steps that should be taken:

Step 1 _____

Step 2 _____

Step 3 _____

Step 4 _____

Step 5 _____

Step 6 _____

Sample Compliance Check List

To ensure security efforts are being maintained spot checks will be performed on a regular basis.

P r a c t i c e	Verified √		Problem/Corrective Action
	Yes	No	
Facilities			
Are seals and seal logs easily accessible to anyone other than the drivers?			
Are tankers in the depot always sealed?			
Grader Drivers			
Have standard operating procedures been developed and implemented for the tanker sealing program?			
Are there SOPs in place and known by drivers when faced with suspicious circumstances?			
Do employees know how to and do they feel comfortable with, reporting suspicious activity to management?			
Is there a communication method between Grader Drivers and supervisors?			
Incidence Response			
Are mock crises ever done to test specific procedures and employee awareness?			