

FARM•A•SYST

FOR MICHIGAN PRODUCERS

FAS 107 · October 2019



**For MAEAP Verification:
Contact the MAEAP Office at the
Michigan Department of
Agriculture & Rural Development
(517) 284-5609**



MICHIGAN STATE UNIVERSITY | Extension

Farm ♦ A ♦ Syst

Farmstead System Improvement Action Plan (continued)

Risk question	List high-risk practice(s) from Farm ♦ A ♦ Syst and medium-risk practices that do not meet MAEAP requirements	Required for MAEAP verification	Alternative low-risk practice (include potential sources of technical and financial assistance)	Action plan	
				Planned completion date	Indicate date when completed

I understand that this farmstead system assessment (Farm ♦ A ♦ Syst) and corresponding Farmstead System Improvement Action Plan were developed on the basis that I have disclosed, to the best of my knowledge, all information pertaining to my farmstead operations.

Farmstead address:

Street _____

City _____

State _____ Zip _____

Watershed name _____

Producer's signature _____

Date _____

Farm ♦ A ♦ Syst conducted by:

Name _____

Title _____

Organization _____ Date _____

MAEAP Verification Action Plan	Date
Target date for MAEAP verification of Cropping System	
Target date for MAEAP verification of Farmstead System	
Target date for MAEAP verification of Livestock System	
Target date for MAEAP verification of Forest, Wetlands, & Habitat System	

Aerial map with farmstead boundaries is attached.

Introduction

In 2011, the Michigan Agriculture Environmental Assurance Program (MAEAP) was codified in law as set forth in P.A. 451, Part 87, of the Natural Resources & Environmental Protection Act (NREPA). The Farm•A•Syst tool is updated annually to incorporate the current MAEAP Standards for this system. The tool also includes applicable Generally Accepted Agricultural and Management Practices (GAAMPs) established under Michigan Right to Farm. The completed A Syst tool and associated plan and practices meet the requirement of a Conservation Plan, as defined in Part 82 of NREPA and referenced in Part 87 of NREPA. This statute also ensures producer confidentiality for any information provided in connection with the development, implementation or verification of a conservation plan or associated practices and is exempt from disclosure under the Freedom of Information Act.

The Michigan Agriculture Environmental Assurance Program is a comprehensive, proactive and voluntary agricultural pollution prevention program. It takes a systems approach to assist producers in evaluating their farms for environmental risks. The four systems are Livestock, Farmstead, Cropping and Forest, Wetlands and Habitat. Farm•A•Syst assesses the environmental risks of the Farmstead System.

The Michigan Right to Farm Act authorizes the Michigan Commission of Agriculture and Rural Development to develop and adopt GAAMPs for farms and farm operations in Michigan. These voluntary practices are based on available technology and scientific research to promote sound environmental stewardship. The current Right to Farm GAAMPs are posted on the Michigan Department of Agriculture and Rural Development (MDARD) Web site: www.michigan.gov/mdard.

Producers who complete the Farm•A•Syst assessment will be able to determine what management, structural or equipment changes (if any) will be needed for the farmstead to be environmentally assured through MAEAP.

Once the producer develops and implements a Farmstead Improvement Action Plan to address the risks indicated by the Farm•A•Syst assessment, he or she can contact MDARD at (517) 284-5609 to request a MAEAP Farmstead System verification process. The owner of a MAEAP verified farmstead will be eligible for incentives and can enjoy the peace of mind that comes from knowing that Farmstead System practices are consistent with the identified current Right to Farm GAAMPs. Verified Farmstead Systems are positioned to achieve regulatory compliance with state and federal environmental laws.

What is the Farmstead Assessment System?

The Farmstead Assessment System (Farm•A•Syst) is a series of risk questions that will help assess how effectively the farmstead structures, management practices and site conditions protect water resources. The risk questions are grouped in the following sections:

	Farmstead Improvement Action Plan	8	Septic System Management
1	Farmstead Site/Soil Evaluation	9	General Livestock Management
2	Water Well Condition	10	Livestock Manure Storage
3	Pesticide Storage and Handling	11	Livestock Lot Management
4	Pesticide Handler and Worker Safety	12	Silage Storage
5	Fertilizer Storage and Handling	13	Milking Center Wastewater Treatment
6	Petroleum Product Storage and Management	14	Other Environmental Risks in the Farmstead System
7	Waste Management		

Farm•A•Syst

How Does Farm•A•Syst Work?

- 1) Select all relevant sections for the farm.
- 2) Answer the risk questions by selecting the statement that best describes conditions on the farmstead. Indicate the risk level in the column to the right. Skip any questions that don't apply to the farmstead.

Note: For MAEAP verification, complete the risk questions with a Farm•A•Syst trained individual (water stewardship technician, Michigan State University Extension [MSUE] educator, Natural Resources Conservation Service [NRCS] resource conservationist or other MAEAP trained partner).

- 3) After completing each section of the risk questions, list the practices that present a high risk of contaminating water resources in the Farmstead Improvement Action Plan. The plan is printed inside the front cover of the bulletin. Also include medium-risk practices that do not meet MAEAP verification requirements.
- 4) In the Farmstead Improvement Action Plan, list:
 - Alternative practices, structures or equipment that are planned to implement or install that will help reduce risks to water resources.
 - Sources of technical and financial assistance.
 - Target dates for accomplishing the changes.
 - Target date for MAEAP verification of the Farmstead System.

Risk questions that address management practices that are regulated by state or federal law indicate **illegal practices with black bold print**. The numbered footnotes indicate what regulation(s) is (are) violated.

Risk questions that address management practices that are consistent with a specific GAAMP are identified with **blue bold italic print**.

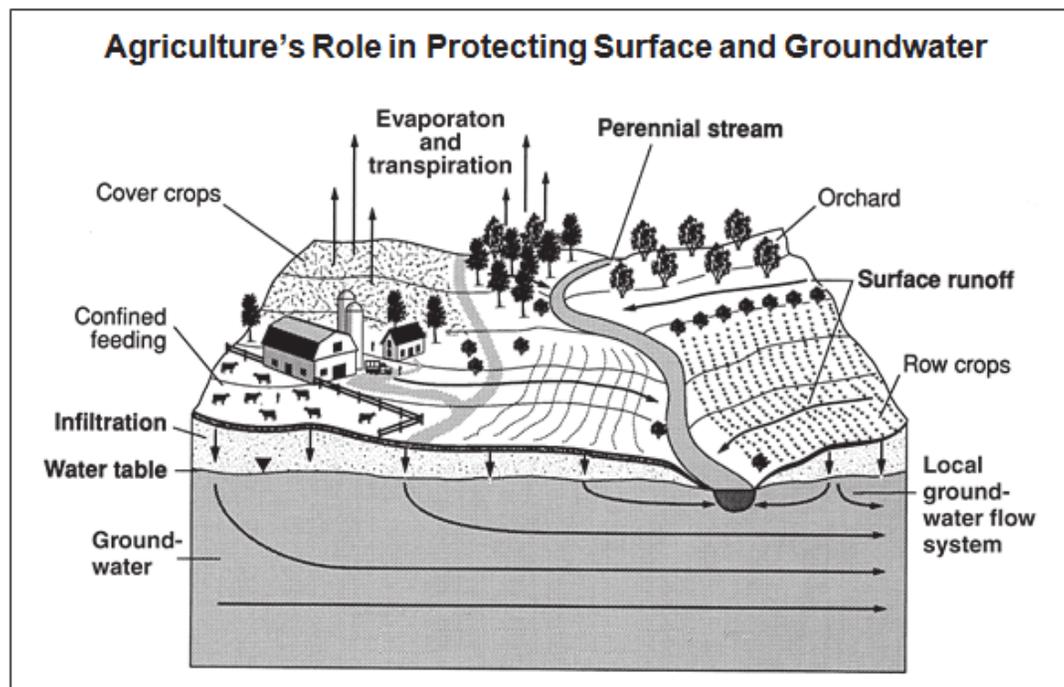
Finally, a blue box indicates the management level(s) required for MAEAP verification.

A Few Final Words

The key to Farm•A•Syst is that, once the environmental risks have been identified, implement a plan to reduce the risk(s).

Some of the stewardship practices that will reduce risks may cost very little and take very little time to implement. Other practices or structures may involve additional cost and may not be implemented for a few years. It is important, however, to have a plan to follow.

Once a plan has been developed and changes have been implemented to address the risks on the farmstead, MAEAP Farmstead System verification can be requested.



The numbered footnotes indicate what regulation(s) is (are) violated (refer to Table 3, page 65).

Farmstead Site/Soil Evaluation

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
1.00) Has there ever been a formal Right to Farm complaint against the farm?	There has never been a Right to Farm complaint, or the concern was not verified, or the concern was resolved.		There was a formal Right to Farm complaint and the concern was not resolved.	Producer's verbal indication of complaint history.	
1.01) What is the texture of the dominant soil (zero to five feet deep) at the farm site?	Very Fine-textured soils: clay, clay loam, silty clay loam, sandy clay, sandy clay loam, and silty clay.	Medium-textured soils: loam, silt loam, sandy loam and silt.	Course-textured soils: sand, fine sand, very fine sand, loamy very fine sand.		
1.02) What is the depth of the topsoil and subsoil (A & B horizons)?	Greater than 40 inches.	30 to 40 inches.	Less than 30 inches.		
1.03) What is the depth to the seasonal high water table?	Greater than six feet.	Three to six feet.	Less than three feet.		
1.04) What is the soil organic matter content?	Greater than four percent.	One to four percent.	Less than one percent.		
1.05) What is the makeup of the geological materials more than five feet underground?	Low-permeability materials: silt, clay, shale, clay stone.		Highly permeable materials: sand, gravel, fractured rock, karst limestone.	No significant erosion present at the farmstead.	
1.06) Is the farmstead site subject to visible soil erosion?	Site does not erode.	Slight or occasional erosion with limited risk to surface water.	Significant erosion occurs annually. ⁴	No significant erosion present at farmstead.	

A boxed risk level indicates the level required for environmental assurance verification.

Bold black print indicates a violation of state or federal regulation.

Bold italic blue print indicates a management practice consistent with a specified 2019 Right to Farm (RTF) Generally Accepted Agricultural and Management Practice (GAAMP).

Water Well Condition

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
2.01) How old is the well that serves the farmstead?	Less than 10 years old.	10 to 25 years old.	More than 25 years old, or age is unknown.		
2.02) What kind of well(s) is/are present?	Drilled and grouted.	Drilled and not grouted ¹ or driven point or water jetted.	Large diameter (12 to 48 inches) dug well, or construction is unknown.		
2.03) Is the farm well classified as a private or public water supply? Use Table 1 in FAS107 for well type identification.	Private: potable water for drinking or domestic or greenhouse purposes for family members only.	Public: water for drinking or household/greenhouse purposes to persons other than the owner and family (greenhouse with employees or that is open to the public).			
2.04) What is the slope from the well to potential contamination sources?	Well is upgrade from all contamination sources.	Well is at grade from most contamination sources.	Well is downgrade or in a depression relative to contamination sources.		
2.05) What is the condition of the well casing and cap?	No holes or cracks. Cap tightly secured.		Holes or cracks visible. Cap loose or missing. Water can be heard running into well. Exposed well casing bent. ¹	Satisfactory well casing and cap present.	
2.06) If the drinking water well serves 25 or more people for 60 consecutive days is it registered as a Type II public water supply and has it been tested according to the local health department requirements?	The water supply is a Type IIa or IIb system that is registered with the local health department and routine water sampling is completed as required.	The water supply use is less than 20,000 gallons per day on average, making it a Type IIb water supply, and water sampling is not completed in accordance with local health department requirements. ³	The water supply use is 20,000 gallons or more per day on average, making it a Type IIa water supply, and water sampling is not completed according to local health department requirements. ³		

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Water Well Condition (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
2.07) From the well installation record, is there a protective soil layer (confining material) in the soil formation?	Continuous clay or shale layer more than ten feet thick. Or, Continuous clay mixture more than twenty feet thick.	Clay or shale layer less than ten feet thick. Or, Clay mixture less than twenty feet thick.	No protective layer (unconfined aquifer).		
2.08) What is the depth of the well casing?	More than 100 feet. Or, Minimum of 60 feet with ten feet of clay or twenty feet of clay mixture (confining material.)	At least 25 feet, but no confining material.	Less than 25 feet, or no casing.¹		
2.09) What is the casing height above grade?	12 inches or more.	From grade level to less than 12 inches.¹	Below grade or in a pit or in a basement.¹		
2.10) When was the last time the well was inspected by a professional well driller or pump installer?	Within the past 10 years.	Between 10 and 20 years ago.	More than 20 years ago, or don't know when the well was last inspected.		
2.11) How is backflow or back siphoning of fertilizer or pesticide mixtures into the water supply prevented?	<i>Anti-backflow device installed</i> , including a reduced pressure zone (RPZ) valve, double check valve assembly, or chemigation valve with an internal air gap, and <i>air gap maintained above the overflow level of the tank</i> . Air Gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Either an <i>anti-backflow device installed</i> , including reduced pressure zone (RPZ) valve, double check valve assembly, or chemigation valve with an internal air gap, or <i>air gap maintained above the overflow level of the tank</i> . Air Gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Neither an anti-backflow device nor air gap maintained.¹	Anti-backflow device installed, including an RPZ valve, double check valve assembly, or chemigation valve with an internal air gap, or air gap present or demonstrated.	

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Water Well Condition (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
2.12 Is there an unused well located on the farmstead?	No unused well or abandoned well properly sealed.	-Unused well temporarily abandoned properly: Meets minimum isolation distances. -Is disconnected from any water distribution piping -Has the top of the casing securely capped.	Unused, unsealed well at farmstead.¹	Unused well(s) properly sealed.	
2.13 How often is the drinking water tested for nitrates and bacteria?	Tested yearly.	Tested within the past 3 years.	No water testing done, or more than 3 years since last test.	Water tests for nitrates and coliform bacteria within the past 3 years.	
2.14 What are the water test results?	No coliform bacteria or nitrates detected.	Water contamination detected. Public water well(s) test below health advisory limits.	Water contamination detected. Public water well(s) test above health advisory limits.¹	Water tests within health advisory limits for public wells.	
2.15 Is the farm, or portions of the farm, included in a community wellhead protection area?	No.	Yes, or don't know, and soil characteristics and farm operations pose minimal risks to groundwater.	Yes, and soil characteristics and/or farm operations pose significant risks to groundwater.		
2.16 If a frost-free yard hydrant is connected to a water system, is the hydrant Michigan Department of Environment, Great Lakes and Energy (EGLE) approved?	EGLE-approved yard hydrant protects water supply from contaminated water back-siphoned into the hydrant's drain valve. Or, Yard hydrant is not EGLE-approved,¹ but an anti-backflow valve is installed between the hydrant and the water source.		Yard hydrant is not EGLE-approved¹ and there is no anti-backflow valve.		

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Water Well Condition (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
2.17) If the drinking water well serves 25 or more people for 60 consecutive days (type IIb public water supply), has it been tested for arsenic?	Drinking water tested on a quarterly basis. Average arsenic level is less than 10 ppb.		Drinking water is not tested. ³		
2.18) If the groundwater and surface water pumps have a combined capacity to pump more than 70 gallons per minute (100,000 gallons per day) for agricultural purposes, has water use been registered and reported to the State of Michigan?	Pump capacity is less than 70 gallons per minute (100,000 gallons per day); Or, Register and report annual water use to Michigan Department of Agriculture and Rural Development by April 1.		Pump capacity is greater than 70 gallons per minute (100,000 gallons per day) and water use is not reported to the State of Michigan. ¹⁴	Farm records indicate compliance with water use reporting.	

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Water Well Condition (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
2.19) Is a horizontal sock well (HSW) present in the farmstead system?	<p>HSW outlets are clearly identified as not being suitable for human consumption.</p> <p>HSW is completely separated (no common piping) from any potable water supply system.</p> <p>HSW meets isolation distance requirements the entire horizontal length of the HSW.</p> <p>Both ends of the HSW are identified.</p>	<p>-HSW outlets are clearly identified as not being suitable for human consumption.</p> <p>-HSW is completely separated (no common piping) from any potable water supply system.</p> <p>-HSW meeting isolation distance requirements the entire length of the HSW, except for chemigation/fertigation systems during active use season that have Reduced Pressure Zone (RPZ), double check valve assembly or chemigation valve with an internal air gap installed and secondary containment.</p> <p>-Both ends of the HSW are identified.</p>	<p>HSW is being used for human consumption, shares common piping with a potable water supply, does not have both ends clearly identified, or does not meet State of Michigan isolation distances or MAEAP standard for its entire horizontal length.^{1, 3}</p>	<p>Low risk criteria are present or demonstrated.</p>	

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Table 1: Farm Well Description and Isolation Distance

Table 1. Farm Well Description and Isolation Distances.

Farm Well Information		Isolation Distance (in feet) From:									
Description	Private or Public	Fuel Storage	Pesticide Storage	Fertilizer Storage	Mix/Load Area	Liquid Manure Storage	Dry Manure Storage	Dirt Animal Lot	Septic System	Other	Other
1											
2											
3											
4											
5											
6											
7											
8											

What is considered a private water supply?

A private water supply provides water to the supplier of the water (e.g., the owner) and includes water for the supplier’s drinking water, household use, livestock water, irrigation, etc.

What is considered a public water supply?

In Michigan, wells that provide water to non-family member employees or that service a milkhouse or milkroom are considered public water supplies.

Public water supplies are classified based on capacity and number of employees.

- A Type II public water supply is a non-community supply with at least 15 service connections or which serves 25 or more individuals (employees) on an average daily basis for at least 60 days out of the year.
 - A Type IIa water supply has an average daily production for the maximum month of 20,000 gallons or more.

- A Type IIb water supply has an average daily production for the maximum month of less than 20,000 gallons.

- A Type III public water supply is one that does not meet the above requirements for the number of service connections or employees.

Pesticide Storage and Handling

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE OF MAEAP VERIFICATION	YOUR RISK
<p>3.01) How far is the pesticide storage located from any water well? (Private wells include irrigation, livestock watering, cooling etc.)</p> <p>Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees).</p> <p>Use Table 1 in FAS107 for well type identification.</p>	<p>For private wells:</p> <ul style="list-style-type: none"> • 150 feet or greater. Or, • with secondary containment, 50 feet or greater. <p>For Type IIb or Type III public wells:</p> <ul style="list-style-type: none"> • More than 800 feet or greater from the farm well, <p>OR,</p> <ul style="list-style-type: none"> • Approved isolation distance deviation for the well, <p>OR,</p> <ul style="list-style-type: none"> • Between 75 and 800 feet with approved storage and well, and protective site features.* <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 150 feet without secondary containment, or less than 50 feet with secondary containment.¹</p> <p>For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well.³</p>	Appropriate pesticide storage isolation distance for site characteristics.	
<p>3.02) How far is the pesticide storage located from surface water? (drains, streams, ponds, catch basins on farmstead, etc.)</p>	<i>200 feet or greater.</i>	Less than 200 feet with appropriate security measures.	Less than 200 feet.	Appropriate pesticide storage isolation distance from surface water.	
<p>3.03) How are pesticides delivered to the farm?</p>	Just-in-time delivery provided by dealer or farmer to mix/load site.	Responsible, trained farm employee or family member or dealer transports pesticides to storage.	Untrained farm employee or family member transports pesticides.		

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.04) What kind of structure is used for pesticide storage?	Separate long-term or seasonal structure especially designed for pesticide storage.	Pesticides stored in separate single-use structure not designed or retrofitted for pesticide storage.	Pesticides stored in farm building used for multiple purposes.		
3.05) What design features does the pesticide storage have to contain spills and leaks?	Impermeable floor surface does not allow spills to soak into soil. Curb installed on floor to contain leaks and spills or individual package containment.	Impermeable floor surface without curb.	Permeable floor surface (wood, gravel or dirt floor) or impermeable floor with cracks. Spills could contaminate soil. Drain in the floor that discharges to the environment. ⁴	Adequate secondary containment for pesticide storage.	
3.06) What type of pesticide storage shelving is used?	Metal or plastic shelving, with shelf lips to prevent containers from falling. And, Dry formulations are stored on upper shelves and liquids on lower shelves.	Metal or plastic shelves without lips. Or, Wood shelves, covered with an epoxy paint or plastic liner.	Bare wood shelving without lips. Or, No shelves, pesticides containers are on the floor where they may be damaged.		
3.07) What level of security is provided for the pesticide storage?	Fenced or locked area, secure from unauthorized access. Storage is separate from all other activities.	Storage is open to activities that could damage containers or spill chemicals.	Open access to pesticide storage could result in theft, vandalism, and injury to children, pets or wildlife. ²⁰	Adequate pesticide storage security.	
3.08) What signage is posted on the storage facility?	A highly visible, weatherproof sign indicates that pesticides are stored there. A “No Smoking” sign is also posted.	Pesticide storage sign is posted, but “No Smoking” is not posted.	The pesticide storage has no signs.	Pesticide storage signage present.	

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.09) What kind of spill kit is available at the pesticide storage?	<i>A complete spill kit is immediately available. A fire extinguisher approved for chemical fires is easily accessible and useable.</i>	<i>Spill kit is immediately available</i> , but no fire extinguisher.	A spill kit is not available. ¹⁸ A fire extinguisher is not available.	Spill kit with fire extinguisher present at pesticide storage.	
3.10) What total quantities of pesticides are stored on the farm?	No pesticides stored at any time, or only seasonal use	1 gallon, or 10 pounds, or more of each pesticide in long-term storage.	More than 56 gallons, or more than 55 pounds, of each pesticide in long-term storage.*		
3.11) What quantities of liquid pesticides are stored?	No liquids – all dry formulations.	Some liquid formulations stored.	More than 55 gallons of liquid formulations stored.		
3.12) Are pesticides with high leaching potential stored?	No pesticides stored, or only pesticides with low leaching potential.	Pesticides with low and medium leaching potential stored.	Pesticides with high leaching potential stored.		
3.13) Have Extremely Hazardous Substances (EHS) been reported to authorities?	No EHS stored or used. Anhydrous ammonia is not used on the farm.	EHS stored or used on farm have been identified and reported to local and state authorities (if stored at or above threshold planning quantity).	EHS stored or used on farm have NOT been identified or reported. ²¹	Records that indicate EHS have been shared with authorities or that EHS are not used on the farm.	
3.14) What is the condition of stored pesticide containers?	<i>Original containers clearly labeled or containers appropriate for pesticide storage that are properly labeled.</i> No holes, tears or weak seams.	Old containers with hard to read labels. Patched containers, metal containers showing signs of rusting.	Containers have holes or tears that allow chemical to leak. Some containers have no labels. ²⁰	Stored pesticides in satisfactory condition with labels attached.	

*Producers who store certain bulk pesticides in containers that exceed 10 gallons, or 100 pounds, capacity may be subject to additional regulations.

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.15) How are pesticide inventory control and disposal of unwanted products managed?	Pesticides accurately inventoried. Old product used first. Unusable product disposed of through Clean Sweep program.	Some inventory process maintained. Unsure of status of unusable product in storage.	No pesticide inventory maintained. Unusable product maintained in storage for indefinite time.		
3.16) Is there a written emergency plan to deal with spills and other farm emergencies?	Up-to-date plan developed and shared with authorities (if required), employees and family members.	More than one-year-old plan or an incomplete plan is available.	An emergency farm plan has not been developed.	An up-to-date emergency plan.	
3.17) Is there a written pesticide drift management plan for applications made at the farmstead?	<i>A written drift management plan is utilized that minimizes off-target drift.</i>	Pesticide applications follow labeled instructions for target pests, but no drift management plan is utilized.	Spraying operations are completed regardless of weather conditions or forecast, and regardless of the potential of off-target drift.¹⁸	Drift management plan on file.	
3.18) How far is the mixing and loading area from any water well? (Private wells include irrigation, livestock watering, cooling etc.) Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees). Use Table 1 in FAS107 for well type identification.	For private wells: <ul style="list-style-type: none"> • 150 feet or greater. OR, • with secondary containment, 50 feet or greater. For Type IIb or Type III public wells: <ul style="list-style-type: none"> More than 800 feet or greater from the farm well, OR, • Approved isolation distance deviation for the well, OR, • Between 75 and 800 feet with approved storage and well, and protective site features.* For Type IIa public wells, refer to FAS 112S.		For private wells: Less than 150 feet without secondary containment, or less than 50 feet with secondary containment.¹ For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well.³	Appropriate mixing and loading area isolation distance for site characteristics.	

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.19) On the farmstead, how far is the mixing and loading area from surface water or catch basins?	<i>200 feet or greater.</i>	Less than 200 feet, with appropriate security measures.	Less than 200 feet, without appropriate security measures.	Appropriate mixing and loading area isolation distance from surface water.	
3.20) How is the potential reduced for surface and groundwater contamination at the mix/load area(s)?	Mixing and loading pad with curb keeps spills contained. Sumps allow collection and transfer to storage.	Mixing and loading in the field without mix/load pad. Different location every time reduces risks to groundwater. Or, mixing and loading on concrete pad without curbs.	No mixing and loading pad. Permeable soil. Spills soak into ground. Same location every time.	Satisfactory explanation of mixing and loading procedures. No evidence of burned vegetation.	
3.21) How is backflow, or back siphoning, of pesticide mixtures into the water supply prevented?	<i>Anti-backflow device installed</i> , including a Reduced Pressure Zone (RPZ) valve, double check valve assembly or chemigation valve with an internal air gap, or 6 inch <i>air gap maintained above the overflow level of the tank.</i> Air gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Either an <i>anti-backflow device installed</i> , including a RPZ valve, double check valve assembly or chemigation valve with an internal air gap, or 6 inch <i>air gap maintained above the overflow level of the tank.</i> Air gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Neither an anti-backflow device , including a RPZ valve, double check valve assembly or chemigation valve with an internal air gap, nor air gap maintained. ¹	Anti-backflow device installed, including a RPZ valve, double check valve assembly, or chemigation valve with an internal air gap, or air gap present or demonstrated.	
3.22) How are tank overflows prevented when filling the sprayer?	<i>Sprayer monitored when being filled.</i>		Sprayer seldom or never monitored when being filled.	Satisfactory explanation of spray tank filling procedures.	
3.23) How are pesticides, additives and water quantities measured when loading the sprayer system?	<i>Measuring devices</i> labeled and <i>kept in pesticide storage area.</i> <i>Devices rinsed and rinse water put into spray tank.</i> Tank capacities labeled.		A variety of unlabeled measuring devices used. Devices may be used for other purposes. Tank capacities not identified.	Set of dedicated measuring devices for pesticides. Spray tank capacities labeled.	

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.24) How are pesticide products transferred from their containers to the sprayer tank?	Closed system for all liquid and dry product transfers.	All liquid and dry products hand-poured. Mixing/storage tank opening easy to reach.	All liquid and dry products hand-poured. Mixing/storage tank opening hard to reach.	Satisfactory explanation of procedures for excess spray mixtures.	
3.25) How is excess spray mixture or rinse water from the interior of the spray system disposed?	<i>Spray mixture applied to labeled site at or below labeled rate of application</i> or appropriately stored for later use.		Spray mixture dumped at farmstead or in nearby field or surface water. ⁴	Satisfactory explanation of procedures for excess spray mixtures.	
3.26) How is accumulated spray building wastewater or other comingled rinsates that cannot be directly applied to growing crops disposed?	Applied to a site where there is growing vegetation or where a crop will be planted following labeled setbacks at or below labeled rates. Application areas are rotated, and records of contents of material and application site are kept. Or taken to a hazardous waste landfill.		Dumped at the farmstead, in the field, or discharged to surface water. ⁴	Records of application provided.	
3.27) Where is the exterior of the spray equipment and tractor washed if there is accumulated residue?	Washed in containment or washed in the field in different locations >200' from surface water, catch basins or tile inlets and >150' from a well.		Sprayer washed at the farmstead. Rinse water dumped at farmstead or in nearby area or pond. ⁴	Satisfactory explanation of procedures for rinsing sprayer system.	
3.28) How are empty pesticide containers rinsed and disposed?	<i>Containers triple-rinsed or power-rinsed, punctured</i> and returned to dealer, or disposed of in a licensed landfill. Bags are returned to dealer or taken to licensed landfill. Properly rinsed containers can be disposed in a dumpster that is taken to a licensed landfill.	Disposal of empty containers and bags on the farm property. ⁹	Disposal of partially filled containers. Burning of containers on the farm property. ^{5,9}	Rinsed jugs stockpiled for recycling or landfilling. No un-rinsed jugs on farmstead.	

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PESTICIDE STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
3.29) What type of pesticide containers are purchased?	Where available, all pesticide products are purchased in recyclable or returnable containers to reduce the number of empty containers that require disposal.	Some pesticide products are purchased in recyclable or returnable containers.	Most pesticides are purchased in containers that require special handling or treatment before disposal.		

PESTICIDE HANDLER AND WORKER SAFETY

4.01) How are pesticide handlers/workers trained on pesticide use and handling?	<i>All handlers/workers are certified pesticide applicators or have had Worker Protection Standard (WPS) training.</i>		Handlers/workers are not certified pesticide applicators and have not had WPS training.²²	Pesticide applicator certification or WPS training.	
4.02) How are handlers/workers informed of risks associated with pesticide applications?	<i>Central notification of pesticide applications is provided. Display includes EPA-approved safety poster, emergency medical information and pesticide application information.</i>	Central notification provided, although not all posting requirements are met. ²²	No central notification provided. ²²		
4.03) What supplies are provided to handlers/workers for pesticide decontamination?	<i>Clean water, soap, disposable towels and clean coveralls (handlers) are available for all handlers/workers within one-quarter.</i>	A decontamination site is provided, although not all WPS requirements are met. ²²	A decontamination site is not available. ²²		
4.04) How are workers notified of pesticide applications?	<i>Oral and/or posted warnings about pesticide application provided.</i>		No notice about pesticide application provided. ²²		
4.05) Who provides and maintains personal protective equipment (PPE) and trains handlers in its use?	<i>All label-required PPE provided and maintained by employer. Training on use of PPE provided.</i>	WPS requirements for PPE partially met. ²²	PPE not provided. ²²		

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FERTILIZER STORAGE AND HANDLING

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>5.01) How far is the fertilizer storage located from any water well? (Private wells include irrigation, livestock watering, cooling etc.)</p> <p>Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees)</p> <p>Use Table 1 in FAS107 for well type identification.*</p>	<p>For private wells:</p> <ul style="list-style-type: none"> • 150 feet or greater. OR, • with secondary containment 50 feet or greater. <p>For Type IIb or Type III public wells:</p> <ul style="list-style-type: none"> • More than 800 feet or greater from the farm well. OR, • Approved isolation distance deviation for the well. OR, • Between 75 and 800 feet with approved storage and well, and protective site features.* <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 150 feet without secondary containment, or less than 50 feet with secondary containment.¹</p> <p>For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well.³</p>	Appropriate fertilizer storage isolation distance for site characteristics.	
<p>5.02) How far is the fertilizer storage located from surface water? (drains, steams, ponds, catch basins on farmstead, etc.)</p>	200 feet or greater.	Less than 200 feet with appropriate security measures.	Less than 200 feet.	Appropriate fertilizer storage isolation distance from surface water. Note: bulk liquid fertilizer storages installed after August 13, 2008, having a capacity greater than 2,500 gallons, or having combined capacity of all takes greater than 7,500 gallons, must be located 200 feet or more from surface water.	

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.03) Is the fertilizer storage facility (both liquid and dry) identified with a sign?	Storage facility labeled “Fertilizer”, or the fertilizer containers labeled with fertilizer analysis.	No sign.		Note: Bulk liquid fertilizer storages installed after August 13, 2008, having a capacity greater than 2,500 gallons, or having combined capacity of all tanks greater than 7,500 gallons, must be located 200 feet or more from surface water.	
5.04) What level of security is provided for the fertilizer storage?	<i>Fertilizer storage areas, valves, and containers are secured when not in use.</i>	Appropriate conditions are partially met.	Fertilizer storage facilities are not locked or secured by any means. Open access to theft, vandalism and children exists.	Adequate fertilizer storage facility.	
5.05) Is fertilizer stored in the direct presence of fuel products?	No. Fertilizer is not stored in the direct presence of fuel products.		Yes. Fertilizers and fuel products are stored together – posing an increased potential for explosions and significant disposal problems.		
5.06) Is liquid fertilizer stored in the direct presence of pesticide products?	No.	Fertilizer and pesticide products are stored in the same structure but separated with secondary containment.	Yes. Fertilizers and pesticide products are stored together – posing an increased potential for significant disposal problems.		
5.07) How often is the fertilizer storage area inspected for safety concerns?	<i>At least annually.</i>		No regular inspections of the storage facility.	Evidence fertilizer storage is inspected at least annually.	
5.08) Is there a written emergency plan to deal with fertilizer spills, discharges and other farm emergencies?	Up-to-date plan developed and shared with authorities (if required), employees and family members.	More than one-year-old plan or an incomplete plan is available.	An emergency farm plan has not been developed.	Up-to-date emergency plan.	

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.09) What total quantities of liquid fertilizers are stored on the farm?	No liquid fertilizer stored at any time.	Less than 2,500 gallons.	More 2,500 gallons.		
5.10) What quantities of dry fertilizers are stored?	No dry fertilizer stored at any time.	Less than 20 tons.	More than 20 tons.		
5.11) What kind of structure is used for dry fertilizer storage?	<i>A structure or device capable of preventing contact with precipitation and/or surface water.</i>		Storage allows fertilizer contact with precipitation and/or surface water.	Satisfactory dry fertilizer storage facilities.	
5.12) What kind of container is used for liquid fertilizer storage?	<i>Stored in containers approved for, and compatible with, the fertilizer being stored.</i>		Liquid fertilizer stored in containers not approved for/or compatible with the fertilizer being stored. Or fertilizer stored in underground tanks.	Satisfactory liquid fertilizer primary storage containers.	
5.13) Are poly tanks used as intended?	Yes. Vertical (upright) tanks are used for stationary fertilizer storage, and horizontal tanks with tie-down features are used for stationary storage and/or transportation applications.		Vertical tanks are used as mobile nurse tanks or in other transportation applications.		
5.14) Are poly tanks inspected periodically for structural soundness?	Poly tanks are inspected for crazing (spider webbing) and cracking in the spring and again at the end of the season. Damaged tanks are replaced or used for water.	Poly tanks are inspected periodically and replaced as necessary.	Tanks are not inspected regularly. High potential for tank failure is present.		
5.15) How long is liquid fertilizer stored on the farm?	Less than 60 days.	60 to 270 days.	More than 270 days.		

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.16) Is there secondary containment for liquid fertilizer stored on the farm?	All liquid fertilizer is stored with secondary containment.	Containers with greater than 2,500-gallon capacity or all containers located at a single site with a combined total capacity of greater than 7,500 gallons have secondary containment.	Containers with greater than 2,500-gallon capacity or all containers located at a single site with a combined total capacity of greater than 7,500 gallons do not have secondary containment. ¹⁹	Satisfactory liquid fertilizer secondary storage containers, if required.	
5.17) What is the condition of storage tanks, hoses, valves and fittings used for liquid fertilizer?	Tanks, hoses, fittings and valves are in good condition, well maintained and <i>compatible with the fertilizer being stored.</i>	Tanks, hoses, fittings and valves have some rust or signs of wear. Tanks previously used for underground petroleum storage are in good condition and in secondary containment.	Rusty, aged, worn, damaged or leaking storage tanks, hoses, fittings or valves directly discharging to surface waters, ⁴ or use of underground petroleum tanks without secondary containment.	Satisfactory condition of liquid fertilizer storage system.	
5.18) How are precipitation and clean-up leakage managed, if it occurs, in the on-farm liquid fertilizer secondary containment facility?	Leakage cleaned up immediately. Appropriate products are used to clean residual fertilizer off the surface of the secondary containment structure. Contained precipitation/fertilizer mixture spread on field at or below agronomic rate.	Spilled fertilizer recovered, but secondary containment surface not cleaned up after a spill or leakage.	Contained leakage not recovered. Leakage with accumulated precipitation directly discharged in surface waters. ⁴	Satisfactory explanation of precipitation and leakage management in the secondary containment facility.	

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.19) How is leakage prevented when filling storage tanks, sprayers or mobile containers?	A permanent or temporary mix/load pad used during loading operations. Spills cleaned up immediately. Or, Fertilizer loaded in the field at different locations every time. Spills cleaned up immediately. Or, Dry couplers used to reduce spills and drips when loading liquid fertilizers. Spills cleaned up immediately.	Drips and leakage contained in buckets placed under couplers. Collected fertilizer reused. Spills cleaned up immediately.	No system in place to capture and prevent spills. Leakage from hose connections allowed to drain onto unprotected soils. Spills not cleaned up. ⁴	Satisfactory explanation of tank filling procedures.	
5.20) If on-farm bulk liquid fertilizer storage requires secondary containment under Regulation 642, is it an operational pad or a closed containment system used?	An operational pad with 750 gal capacity measuring 10' by 20' minimum is in place. Fertilizer loading and unloading operations are supervised at all times.	No operational pad present; closed containment system (dry couplers, hoses under manufacturer warranty, anti-overflow devices, and 150 gal container under point of transfer) are in place. Fertilizer loading and unloading operations are supervised at all times.	There is no operational pad or closed containment system for loading and unloading bulk fertilizer. ¹⁹	When required, an operational pad or closed containment system is present per Regulation 642: On-Farm Fertilizer Bulk Storage.	
5.21) How is backflow or back siphoning of fertilizer mixtures into the water supply prevented?	<i>Anti-backflow device installed</i> , including a Reduced Pressure Zone (RPZ) valve, double check valve assembly, or chemigation valve with an internal air gap, and a 6-inch <i>air gap maintained above the overflow level of the tank</i> . Air gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Either an <i>anti-backflow device installed</i> , including a RPZ valve, double check valve assembly, or chemigation valve with an internal air gap installed, or 6-inch <i>air gap maintained above the overflow level of the tank</i> . Air gap is twice the diameter of the fill pipe or 6 inches, whichever is greater.	Neither an anti-backflow device, including a RPZ valve, double check valve assembly, or chemigation valve with an internal air gap, nor air gap maintained. ^{1,4}	Anti-backflow device, including a RPZ valve, double check valve assembly, or chemigation valve with an internal air gap, or air gap present or demonstrated.	

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.22) What is done with excess fertilizer when field operations are complete?	Fertilizer applied to crop land at or below agronomic rate. Or, Excess fertilizer returned to dealer.	Excess fertilizer stored until next year.	Excess fertilizer applied to cropland without agronomic considerations. Fertilizer dumped at farmstead or direct discharge to surface water. ⁴		
5.23) How are liquid fertilizer storage, transfer and application equipment cleaned out?	Fertilizer equipment rinsed on a containment pad or in field. Rinse water applied to crop land at or below agronomic rate.	Fertilizer equipment not rinsed.	Sprayer rinsed out at farmstead. Rinse water dumped at farmstead or direct discharge to surface water. ⁴		
5.24) How far is the mixing and loading area from the water well? (Private wells include irrigation, livestock watering, cooling etc.) Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees). Use Table 1 in FAS107 for well type identification.	For private wells: <ul style="list-style-type: none"> • 150 feet or greater. OR, <ul style="list-style-type: none"> • With secondary containment 50 feet or greater. For Type IIb or Type III public wells: <ul style="list-style-type: none"> • More than 800 feet or greater from the farm well, OR, <ul style="list-style-type: none"> • Approved isolation distance deviation for the well, OR, <ul style="list-style-type: none"> • Between 75 and 800 feet with approved storage and well, and protective site features.* For type IIa public wells, refer to FAS 112S.		For private wells: Less than 150 feet without secondary containment, or less than 50 feet with secondary containment. ¹ For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well. ³	Appropriate mixing and loading area isolation distance for site characteristics.	

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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FERTILIZER STORAGE AND HANDLING (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
5.25) On the farmstead, how far is the mixing and loading area from surface water?	200 feet or greater.	Less than 200 feet, with appropriate security measures.	Less than 200 feet, without appropriate security measures	Appropriate mixing and loading area isolation distance from surface water.	
5.26) When not in use, where are planting and spray supply vehicles (trailers and trucks) parked to protect water resources from accidental fertilizer and pesticide spills and mischievous activities?	Supply vehicle returned to a secure location when not in use. Fertilizer and pesticides (including treated seed) properly stored more than 150 feet down gradient from any well.		Fertilizer and pesticide (including treated seed) supply vehicle left in an unsecured location. Or, Fertilizer and pesticides stored less than 150 feet from any well. ¹	Map showing where vehicles should not be parked adjacent. No evidence vehicles left in unsecure location.	

PETROLEUM PRODUCT STORAGE AND MANAGEMENT

THIS SECTION IS DESIGNED TO HELP MEET ENVIRONMENTAL CONCERNS RELATED TO PETROLEUM STORAGE.

IT IS NOT INTENDED TO REPRESENT ALL OF THE LEGAL REQUIREMENTS FOR STORAGE AND HANDLING OF PETROLEUM PRODUCTS ON THE FARM.

ALL PETROLEUM STORAGE FACILITIES

6.01) Are fuel storage tanks designed for the way they are being used and compatible with the material stored?	Each tank designed for the way it is being used and compatible with the material stored.		Below-ground tank being used for above-ground petroleum storage, above-ground tank being used for under-ground petroleum storage or tank does not meet specifications for usage. ¹⁶	Fuel tanks used appropriately.	
6.02) Are fuel storage piping, secondary containment and related equipment designed for the way they are being used and compatible with the material stored?	Fuel storage piping and equipment are designed for the way they are being used and compatible with the material stored.		Fuel storage piping or equipment not designed for the way it is being used. Below-ground piping on all under-ground tanks or above-ground tanks of greater than 1,100-gallon capacity not corrosion protected. ¹⁶	Fuel storage equipment appropriate for use.	

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL PETROLEUM STORAGE FACILITIES (CONTINUED)					
6.03) Are fuel tanks monitored for leaks and are leaks repaired?	Owner and operator ensure that releases do not occur.		Tank and piping not monitored and repaired on aboveground tanks equal to or less than 1,100 gallons capacity. Tank and piping not monitored and repaired on all tanks greater than 1,100 gallons capacity. ¹⁶	No fuel leaks present.	
6.04) What design feature(s) does the fueling station have to prevent spills from entering the groundwater, surface water or subsurface soils?	Impermeable surface for fuel transfer such as concrete without cracks.	Compatible surface for fuel transfer such as asphalt for diesel fuel, sealed asphalt for gasoline, steel or other compatible liner material.	Incompatible surface, such as unsealed asphalt surface, for gasoline.	Impermeable surface or incompatible present for fuel transfer.	
6.05) Is the fill opening separate from the vent opening?	Yes.		No. ¹⁶		

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL PETROLEUM STORAGE FACILITIES (CONTINUED)					
<p>6.06) How far is the fuel storage from any water well? (Private wells include irrigation, livestock watering, cooling etc.)</p> <p>Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees.)</p> <p>Use Table 1 in FAS107 for well type identification.</p>	<p>For private wells:</p> <ul style="list-style-type: none"> • 50 feet or greater for tanks less than 1,100 gallon-capacity with no secondary containment, <p>OR,</p> <ul style="list-style-type: none"> • 50 feet or greater for tanks greater than 1.100 gallon capacity or more with secondary containment. <p>For Type III or Type IIb public wells:</p> <ul style="list-style-type: none"> • More than 800 feet from the farm well, <p>OR</p> <ul style="list-style-type: none"> • Approved isolation distance deviation for the well, <p>OR</p> <ul style="list-style-type: none"> • No less than 75 feet for a Type IIB or III well if secondary containment, and site and well protective features are present.* <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 50 feet for most storage tanks.¹</p> <p>For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well without an approved deviation, protection features or secondary containment.³</p>	<p>Appropriate fuel storage isolation distance from water well.</p>	

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL PETROLEUM STORAGE FACILITIES (CONTINUED)					
6.07) Does the tank have secondary containment?	Double-walled tank with continuous space between the two walls, tank in concrete vault or tank in diked area.	No secondary containment for tanks equal to or less than 1,100 gallons capacity.	No secondary containment when combined aboveground storage capacity is 2500 gallons (55-gallon containers or larger) or an individual aboveground tank is greater than 1,100 gallons. ¹⁶		
6.08) If a combined aboveground petroleum storage capacity of greater than 2500 gallons (counting 55-gallon containers and greater) is present and could reasonably discharge into navigable waters of the United States, has a spill prevention control and counter-measure (SPCC) plan been developed?	Plan developed and copy present at farm facility.		No plan. ²³		
6.09) What is the maximum fuel storage capacity (in aggregate) on the farm?	48,000 gallons or less of gasoline or 80,000 gallons or less of diesel in UL 142 single- or double-walled tanks.		Greater than 48,000 gallons of gasoline or 80,000 gallons of diesel in UL 142 single or double wall tanks. ¹⁶		
6.10) Does each tank's fill opening have a lockable closure?	Fill pipe equipped with lockable closure.		No lockable closure on fill pipe. ¹⁶		

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL PETROLEUM STORAGE FACILITIES (CONTINUED)					
6.11) How far is the tank from a storm drain, surface water or designated wetland?	Tank is more than 50 feet away or has some other engineering control present that would control or divert a spill from reaching a storm drain, surface water or designated wetland.		Tank 50 feet or less. ¹⁶	Appropriate fuel storage isolation distance from surface water.	
6.12) How far are LP gas tanks (propane tanks) from aboveground storage tanks (AST's)	LP gas tanks (propane tanks) are more than 20 feet from aboveground fuel tanks.		LP gas tanks (propane tanks) are less than 20 feet from aboveground fuel tanks. ¹⁶		
6.13) How far are LP gas tanks (propane tanks) from the fill and dispensing points of underground storage tanks (UST's)?	LP gas tanks are at least 20 feet from the fill point of the UST and at least 10 feet from the dispensing point of the UST.		LP gas tanks are at less than 20 feet from the fill point of the UST and/or less than 10 feet from the dispensing point of the UST. ¹⁶		
6.14) For tanks <1,100 gallons, how far is the (non-fire protected) tank from buildings and property lines?	- More than 40 feet from a building or a structure.		- Located inside a building. - 40 feet or less from a building, or a structure. ¹⁶		
6.15) How many tanks (equal to or less than 1,100 gallons are at each site at one facility?	3 or fewer.	More than 3.			
6.16) How far apart are fueling sites at the facility?	100 feet or greater.	Less than 100 feet.			
6.17) Are the portable fueling tank and transfer system adequate to reduce risk of environmental contamination?	UL-approved tank and adequate fueling system.	Adequate portable fueling system that reduces risks.	Inadequate portable fueling system that poses risk of environmental contamination.	Adequate portable fueling	

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL ABOVEGROUND PETROLEUM STORAGE FACILITIES					
6.18) Do mobile fuel tanks meet the Federal Hazardous Materials Regulations (FHMR) and USDOT specifications?	Yes, the mobile fueling system meets the FHMR including USDOT specifications or USDOT specifications do not apply because the tank is less than 502 gallons and only goes from farm to field and is properly secured and free from leaks.		No. The tank poses an environmental risk.	Meeting USDOT specifications includes having shipping papers, tank markings and placards. See FAS 112S.	
6.19) Is the tank labeled according to its contents with letters three inches or more in height?	Yes, labeled according to contents (Gasoline or Diesel) and with the following: “FLAMMABLE” (OR “COMBUSTIBLE”) and “KEEP FIRE AND FLAME AWAY”. If tank is not a fire-protected type, it is also labeled: “KEEP 40 FEET FROM BUILDINGS.”		Tank labeled with contents. Tanks storing gasoline not labeled: FLAMMABLE - KEEP FIRE & FLAME AWAY. Tanks storing diesel not labeled: COMBUSTIBLE – KEEP FIRE & FLAME AWAY. ¹⁶		
6.20) Is the tank elevated off the ground to protect from corrosion?	Tank stably mounted on solid timbers, solid cement blocks, manufactured cradles or equivalent to protect the tank bottom from corrosion due to contact with ground. The tank is elevated to allow for a visible inspection of all tank surfaces.		Tank is not stably elevated in order to allow adequate visible inspection of all tank surfaces. ¹⁶	Appropriate tank elevation.	
6.21) Are siphons, manifolds or internal pressure discharge devices present on tank(s)?	Siphons not present on tank(s). Multiple tanks not connected together (no manifold). No internal pressure discharge device present.	Manifold(s) present on tanks installed prior to 2003. After 2003, tanks equipped with a shut off valve for each tank, a spill bucket and audible overfill alarm may have top only manifolds.	Siphons or internal pressure discharge device(s) present on tanks installed after 2003. ¹⁶	No siphons or internal pressure discharge devices present. No manifolds present on tanks installed after 2003 Unless additional protection factors are present.	

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL ABOVEGROUND PETROLEUM STORAGE FACILITIES (CONTINUED)					
6.22) Is the tank dispenser (top-opening tank) or discharge connection (gravity discharge tank) made inoperable when not in use?	Yes, locked or otherwise made inoperable.		No. ¹⁶		
6.23) Does the top-opening tank pump discharge or gravity discharge tank have a self-closing nozzle?	Yes.		No. ¹⁶		
6.24) If a single-walled tank is in a dike with rain protection, is the roof or canopy and supports constructed of non-combustible material and designed so vapors don't collect?	Yes.		No, combustible materials used, or design is such that vapors collect under the roof or canopy. ¹⁶		
6.25) If the tank is covered, are roof and canopy supports located on edge of dike or outside diked area?	Yes.		No. ¹⁶		
6.26) If the tank is covered, is the lowest elevation of the roof or canopy six feet or higher above the top of the tank?	Yes.		No. ¹⁶		

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL ABOVEGROUND PETROLEUM STORAGE FACILITIES (CONTINUED)					
6.27) If the tank is covered, does the normal tank vent extend through the roof or canopy?	Yes.		No. ¹⁶		
ALL ABOVEGROUND PETROLEUM STORAGE TANKS >1,100 GALLON CAPACITY					
6.28) Is the tank registered and is valid proof of registration displayed?	The aboveground storage tank with capacity greater than 1,100 gallons is registered, and valid proof of registration is available.	For aboveground storage tanks with a capacity greater than 1,100 gallons, but less than or equal to, 3,000 gallons the tank is not registered, or valid proof of registration is not available, ¹⁶ but an inspection finds it meets all applicable boxed MAEAP requirements in the Petroleum Products Storage and Management Section.	The tank is not registered and/or the tank does not bear a UL tag, and/or valid proof of registration is not available. ¹⁶	Aboveground storage tank is registered or there are minimal environmental risks.	
6.29) Does tank fill pipe have spill protection?	Spill protection (catch basin) installed and maintained on tank fill pipe.		Tank fill pipe does not have spill protection. ¹⁶	Catch basin installed on fuel tank.	
6.30) Is there an emergency control disconnect for electrically operated fuel systems?	Emergency control disconnect located 20 to 100 feet away from dispensing area.		No emergency control disconnect present. ¹⁶	Appropriate disconnect control present.	
6.31) Are there absorbent materials, a container with lid and a non-metallic shovel to deal with a petroleum spill?	Spill kit present.		No spill kit. ¹⁶	Spill kit present.	
6.32) Does the tank have an audible alarm?	Yes, audible alarm is present.				

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK																								
ALL ABOVEGROUND PETROLEUM STORAGE TANKS >1,100 GALLON CAPACITY (CONTINUED)																													
6.33) Does the tank have secondary containment?	Double walled tank or tank within diked area.		No secondary containment. ¹⁶	Appropriate secondary containment.																									
6.34) How far is the tank from buildings, property lines and public ways?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%; text-align: center;">From Bldg.</th> <th style="width: 33%; text-align: center;">From lot line</th> <th style="width: 33%; text-align: center;">From public way</th> </tr> </thead> <tbody> <tr> <td>In-vault tank up to 15,000 gallons:</td> <td style="text-align: center;">0 feet</td> <td style="text-align: center;">0 feet</td> <td style="text-align: center;">0 feet</td> </tr> <tr> <td>Protected aboveground tank (UL 2085 tank) 6,000 gallons or less:</td> <td style="text-align: center;">5 feet</td> <td style="text-align: center;">15 feet</td> <td style="text-align: center;">5 feet</td> </tr> <tr> <td>UL 2085 tank 6,000 to 12,000 gallons or less:</td> <td style="text-align: center;">15 feet</td> <td style="text-align: center;">25 feet</td> <td style="text-align: center;">10 feet</td> </tr> <tr> <td>UL2080 tank 0-12,000 gallons:</td> <td style="text-align: center;">25 feet</td> <td style="text-align: center;">50 feet</td> <td style="text-align: center;">25 feet</td> </tr> <tr> <td>Other secondary containment tank up to 12,000 gallons:</td> <td style="text-align: center;">50 feet</td> <td style="text-align: center;">100 feet</td> <td style="text-align: center;">50 feet</td> </tr> </tbody> </table>		From Bldg.	From lot line	From public way	In-vault tank up to 15,000 gallons:	0 feet	0 feet	0 feet	Protected aboveground tank (UL 2085 tank) 6,000 gallons or less:	5 feet	15 feet	5 feet	UL 2085 tank 6,000 to 12,000 gallons or less:	15 feet	25 feet	10 feet	UL2080 tank 0-12,000 gallons:	25 feet	50 feet	25 feet	Other secondary containment tank up to 12,000 gallons:	50 feet	100 feet	50 feet		Less than distance indicated for type of tank. ¹⁶		
	From Bldg.	From lot line	From public way																										
In-vault tank up to 15,000 gallons:	0 feet	0 feet	0 feet																										
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Other secondary containment tank up to 12,000 gallons:	50 feet	100 feet	50 feet																										
6.35) Is there a fence to prevent unauthorized entry?	Tank or property fenced or tank within vault with entry protected from unauthorized entry or vandalism.		Unprotected from unauthorized entry. ¹⁶																										
6.36) Is there crash protection for the tank and piping?	Guard posts or appropriate barrier installed for crash protection.		No crash protection. ¹⁶	Crash protection present for fuel tank.																									

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
ALL ABOVEGROUND PETROLEUM STORAGE TANKS >1,100 GALLON CAPACITY (CONTINUED)					
6.37) Is the tank labeled according to its contents with letters three inches or more in height?	Yes, labeled according to contents (Gasoline or Diesel) and with the following “FLAMMABLE (or COMBUSTIBLE) LIQUIDS” and “KEEP FIRE AWAY.”		Tank not labeled.		
6.38) Are there any unused fuel storage tanks on the farm?	If aboveground tank present, it has been emptied, cleaned of liquid and sludge, rendered vapor free and safeguarded from trespassing.		Aboveground tank present and not empty, clean and/or vapor free. Tank fill opening not secured to prevent trespassers from putting chemicals in tank.¹⁶		
UNDERGROUND STORAGE TANKS					
6.39) Has the underground fuel tank (installed before August 1, 2003 with a capacity of less than 1,100 gallons) been tested for leaks within the past three years?	No leaks detected.		No testing.	Appropriate report indicates no leaks present.	
6.40) Does the underground storage tank (installed after August 1, 2003 with a capacity of less than 1,100 gallons) meet Flammable Liquid Combustible Liquid (FLCL) rules?	Leak detection system in place. Tank has corrosion protection, spill bucket installed and overflow prevention in place (alarm or shutoff valve).		FLCL rules not met.¹⁶	Tank meets FLCL rules.	

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
UNDERGROUND STORAGE TANKS (CONTINUED)					
6.41) Do tank(s) or piping that are in contact with the soil have corrosion protection on all parts?	Properly engineered, installed, maintained and inspected (every three years) corrosion protection provided for tank, piping or portions in contact with the soil.		Tank or piping in contact with soil without corrosion protection or unmaintained protection. Not inspected at least once every three years.¹⁶		
6.42) Are there any unused fuel storage tanks on the farm.	If tank present, it has been emptied, cleaned of liquid and sludge, rendered vapor free and safeguarded from trespassing.		Tank present and not empty, clean and/or vapor free. Tank fill opening not secured to prevent trespassers from putting chemicals in tank.¹⁶		
6.43) Is the underground tank registered, and is valid proof of registration available?	The underground storage tank with capacity greater than 1,100 gallons is registered and proof of registration is present.		The tank is not registered, and/or proof of registration is not present.¹⁶	Underground storage tank is registered.	
6.44) If there is an underground fuel storage tank (UST) greater than 1,100 gallons on the farmstead is there a State of Michigan certified operator for the farm?	Yes.		No.¹⁶		
6.45) Did a professional (trained and certified by the tank manufacturer) install the tank?	Professional installation.		No.¹⁶		

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
UNDERGROUND STORAGE TANKS (CONTINUED)					
6.46) Is there insurance or demonstration of financial responsibility should there be a fuel release?	Yes, meet the \$500,000 financial responsibility level for tanks less than 10,000 gallons.		Unable to demonstrate financial responsibility for third party injury and property damage due to accidental release.¹⁶		
6.47) Are there any unused underground fuel storage tanks on the farm?	No, tanks have been removed from the ground and the site. Excavation site checked for evidence of contamination (site assessment). Any contamination present was properly handled.	Underground tanks have been removed or filled with inert solid material. A site assessment has not been completed.	In-ground tank has been left unused for 12 months. Tanks greater than 1,100 gallons have been removed or filled with inert material but a site assessment has not been completed.¹⁶	Proper management of an unused underground fuel storage tank(s).	
OTHER PETROLEUM PRODUCT STORAGE					
6.48) Is the heating oil tank for a farm building being used as designed?	Tank is labeled and used as designed.	Tank is not labeled and used outdoors.	Tank is not being used as designed.	Heating oil storage tank is appropriate.	
6.49) Is a heating oil tank being used to store diesel fuel?	Yes, but tank is labeled as a UL 80 tank and is being used as designed.		Tank is not labeled or is not being used as designed.	Diesel fuel storage tank is appropriate.	
6.50) How far is the home heating fuel or kerosene tank from a building?	Minimum of 5 feet from the building.		Less than 5 feet.		

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PETROLEUM PRODUCT STORAGE AND MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
OTHER PETROLEUM PRODUCT STORAGE (CONTINUED)					
6.51) How far is the fuel tank for the emergency generator from any well?	<p>For private and public wells:</p> <p>Close proximity to the well if the emergency generator provides power to the well in the event of a power outage, and the fuel is in secondary containment.</p> <p>If the emergency generator is not used to run the well, standard well isolation distance criteria applies.</p>		<p>The emergency generator does not run the well and does not meet standard well isolation distance:</p> <p>For private wells: Less than 50 feet for most fuel tanks.¹</p> <p>For public wells: Less than 800 feet from the well without an approved deviation, protection features or secondary containment.³</p> <p>Less than 75 feet with fuel in secondary containment.^{1,3}</p>	Acceptable fuel storage isolation distance from water.	

WASTE MANAGEMENT

7.01) How are household waste and waste generated at the farm managed?	All waste recycled or disposed of in a licensed solid waste facility or incinerator.		Household waste burned on site (if allowed by local government). Farm waste burned on site. ⁹		
7.02) Is there a farm dump?	No farm dump or farm dump property cleaned up and closed.	Farm dump exists but is not being used.	Farm dump still in use.		

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WASTE MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
7.03) If a household trash burn barrel or incinerator exists, how are ashes disposed?	Ashes collected and disposed at a licensed landfill.	Ashes stored or disposed on the farm more than 300 feet from a well or surface water.	Ashes stored or disposed on the farm within 300 feet of a well or surface water.		
7.04) How are hazardous product containers (treated seed packages, fertilizer bags, chemical containers, etc.) disposed?	Recycled or reused appropriately. Or, Disposed at a licensed landfill, or hazardous waste collection service used, or returned to the dealer.		Empty and partially filled containers burned or disposed on the farm.⁹		
7.05) How is waste oil disposed?	Recycled.	Burned in waste oil heater or furnace.	Dumped on the farm.⁸	Evidence of proper oil recycling or disposal.	
7.06) How is wash water, that contains solvent-based degreasers, disposed from an on-farm truck washing operation? (Several trucks washed on a routine basis.)	Discharged onto the ground and the landowner has a valid groundwater discharge permit. OR Discharged into a municipality sewer system with the approval of the municipality.		Discharges more than 1,000 gallons of wash water per month per acre.⁴ Landowner does not have a groundwater discharge permit.⁴ Discharge is within 100 feet of property line.⁴ Discharge causes runoff or waste deposition on adjacent properties.⁴ Landowner does not keep a log of discharge locations. Wash water is discharged into surface waters.⁴	Valid groundwater discharge permit and/or up-to-date discharge logs.	

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WASTE MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>7.07) How is wash water, that does <u>NOT</u> contain degreasers and solvents, disposed from an on-farm truck washing operation? (Several trucks washed on a routine basis.)</p>	<p>Discharged onto the ground and the landowner has a valid groundwater discharge permit (GW1520000). OR Discharged into a municipality sewer system with the approval of the municipality. OR Wash water is only removing non-polluting substances from the exterior of the vehicle and does not include the undercarriage, no additives are used, and the washing process does not add significant pollutants to the water.</p>	<p>Discharges less than 2,000 gallons per day of only wash water with additives onto the ground (“additives” do NOT include solvents and/or degreasers).</p> <p>Additives (soaps and detergents) are used for intended purpose and in accordance with manufacturer’s directions.</p> <p>Washing is limited to exterior of the vehicle and does not include the undercarriage.</p> <p>Wash water does not contain polluting or hazardous substances.</p> <p>Discharge does not runoff, causing ponding or flooding to adjacent properties.</p> <p>Landowner maintains a log detailing the discharge volume of wash water with additives and retains the log for 3 years.</p>	<p>Discharges more than 2,000 gallons per day of wash water with additives onto the ground.⁴</p> <p>Landowner does not have a valid groundwater discharge permit.⁴</p> <p>Wash water contains polluting or hazardous substances.⁴</p> <p>Discharge runoff causes ponding or flooding to adjacent properties.⁴</p> <p>Landowner does not maintain a log detailing the discharge volume of wash water with additives for the past three years.⁴</p>	<p>Valid groundwater discharge permit and/or up to date discharge logs.</p>	
<p>7.08) How is used antifreeze disposed?</p>	<p>Recycled.</p>	<p>Disposed of in municipal sewer (with municipality’s approval).</p>	<p>Dumped on the farm.⁸</p>	<p>Evidence of proper antifreeze recycling or disposal.</p>	
<p>7.09) How are scrap tires disposed?</p>	<p>Recycled.</p>		<p>Disposed on the farm.¹²</p>		
<p>7.10) How are lead- acid batteries disposed?</p>	<p>Recycled.</p>		<p>Disposed of or stored on the farm.⁸</p>	<p>Evidence of proper battery recycling.</p>	
<p>7.11) How are paints, solvents, and cleaners disposed?</p>	<p>Used up, taken to household hazardous waste collection or recycled.</p>	<p>Liquid evaporated in open air, sludge taken to licensed landfill.</p>	<p>Burned or disposed of or stored on the farm.⁸</p>	<p>Evidence of proper recycling or disposal.</p>	

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WASTE MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>7.12) How far from water wells are hazardous products stored?</p> <p>(Private wells include irrigation, livestock watering, cooling, etc.)</p> <p>(Type IIb and Type III Public wells include that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees).</p> <p>Use Table 1 in FAS107 for well type identification.</p>	<p>For private wells: 150 feet or greater.</p> <p>OR,</p> <p>With secondary containment, 50 feet or greater.</p> <p>OR,</p> <p>For public wells (dairy farms or farms with employees): More than 800 feet from the farm well.</p> <p>OR,</p> <p>Approved isolation distance deviation for the well.</p> <p>OR,</p> <p>Between 75 and 800 feet with approved storage and well, and protective site features.*</p> <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 150 feet without secondary containment, or less than 50 feet with secondary containment.¹</p> <p>For Type IIb or Type III public wells: Less than 800 feet from the farm well.³</p>		
<p>7.13) Are used motor oil, new oil and hydraulic oil stored in acceptable containers and properly isolated from drinking water wells?</p>	<p>Oil in acceptable containers stored on impermeable floor or in secondary containment, and with reasonable isolation from any well and does not discharge to surface water.</p>	<p>Oil stored in acceptable containers, but with inadequate isolation from any well and does not discharge to surface water.</p>	<p>Oil stored in leaking containers. Evidence of oil soaking into the soil and/or discharges to surface water.⁴</p>	<p>Acceptable oil storage demonstrated.</p>	
<p>7.14) Are there any storage tanks being used to store motor oil, new oil, hydraulic oil, or any other petroleum product underground?</p>	<p>There are no storage tanks in use underground.</p>	<p>Yes. The tanks meet all the applicable underground storage tank standards found in the Petroleum Product Storage and Management section of the Farm*A*Syst (FAS107).</p>	<p>Yes. But the tank does not meet the standards found in the Petroleum Product Storage and Management section of FAS 107.¹⁶</p>		

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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WASTE MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
7.15) Are floor drains present in farm buildings?	No floor drains. Or, all drains go to an appropriate system designed for the materials drained.	Floor drains are made inoperable except when used for appropriate materials, or materials are stored in secondary containment to prevent leaks from entering drain.	Floor drains are discharged to surface water,⁴ are vulnerable to spills, or drain hazardous materials to inappropriate systems.⁴	Quantities of hazardous materials stored in secondary containment or floor drains plugged to prevent spills or major losses from entering the drain.	
7.16) Is there a mercury manometer on the farm?	No mercury manometer.		Mercury manometer present.	No mercury manometer gauges on the farm.	
7.17) Are there mercury-containing devices on the farm? (Examples include fluorescent lights, thermostats, thermometers, irrigation switches, septic lift station switches and other switches.)	No.	Some mercury-containing devices in use, proper disposal methods used when replaced.	Yes, many mercury-containing devices.	Examples: Recycling center or returned to retailer.	

SEPTIC SYSTEM MANAGEMENT

8.01) Is the farm bathroom connected to a septic system to treat the waste?	Farm bathroom is connected to a septic tank and drainage field, or to another system approved by the Local Health Department.		Sewage added to manure or building pit.¹⁷ No septic system. Direct discharge of wastes to environment.⁴	If there is a farm bathroom, it must be connected to a functioning septic system. Human waste must not be added to livestock manure storage.	
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NOTE: WHEN THERE IS A SEPTIC SYSTEM FOR THE BATHROOM IN THE FARM BUILDING, COMPLETE THE REMAINDER OF THIS SECTION FOR BOTH THE FARM BUILDING AND HOUSE SEPTIC SYSTEMS. IF NOT, COMPLETE IT FOR THE HOUSE SEPTIC SYSTEM.

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SEPTIC SYSTEM MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
NOTE: WHEN THERE IS A SEPTIC SYSTEM FOR THE BATHROOM IN THE FARM BUILDING, COMPLETE THE REMAINDER OF THIS SECTION FOR BOTH THE FARM BUILDING AND HOUSE SEPTIC SYSTEMS. IF NOT, COMPLETE IT FOR THE HOUSE SEPTIC SYSTEM.					
8.02) Is the septic system adequately sized to treat wastewater generated in the house?	Septic system designed to handle more wastewater than required, based on the number of bedrooms in house and soil characteristics.	Capacity just meets wastewater requirement.	Design capacity is much less than potential flow of wastewater. Or, No septic system; direct discharge of wastes to environment. ⁴		
8.03) What is the age of the septic system?	Less than 5 years old.	6 to 20 years old.	More than 20 years old.		
8.04) What distance separates the septic system components from water wells?	Greater than 50 feet from private wells (75 feet from public wells, including dairy farms and farms with employees).		Less than 50 feet from a private well(s) (less than 75 feet from public wells, including dairy farms and farms with employees.) ³		
8.05) When was the last time the septic tank was pumped out?	Within the past 5 years.	Between 5 and 10 years.	More than 10 years ago.		
8.06) Who pumps out the septic tank?	Licensed septage hauler.		Farmer/self or unlicensed contractor. ¹⁰	Satisfactory explanation of tank pumping procedures.	
8.07) How is the drain field protected from traffic, deep-rooted plants (like crops) and structures?	Vehicles and other heavy objects or activities kept away from drain field area. No deep-rooted plants, pavement or structures over the drain field.		Vehicles, livestock, heavy objects or other disturbances permitted in area. Trees planted in or directly next to the drain field.		
8.08) Are there any signs of trouble with the septic system?	Household sanitary drains flow normally. No sewage odors inside or outside. Soil over drain field firm and dry. Well water tests negative for coliform bacteria.	Household drains run slowly or soil over drain field is sometimes wet.	Sewage odors noticed in the house or near the drain field. Drains plugged or backed up. Soil wet or spongy in the drain field area. Well water tests positive for coliform bacteria.		

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SEPTIC SYSTEM MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
NOTE: WHEN THERE IS A SEPTIC SYSTEM FOR THE BATHROOM IN THE FARM BUILDING, COMPLETE THE REMAINDER OF THIS SECTION FOR BOTH THE FARM BUILDING AND HOUSE SEPTIC SYSTEMS. IF NOT, COMPLETE IT FOR THE HOUSE SEPTIC SYSTEM.					
8.09) What records are maintained on the septic system?	Good map and records of system repairs and maintenance are kept.	Some records maintained.	No map and maintenance records kept.		
8.10) How frequently is the septic system used for grease and solid waste disposal from the kitchen?	Solid kitchen waste and grease are not disposed of in the septic system.	Moderate use of the septic system for solids and grease disposal from the kitchen.	Frequent use of the septic system for solids and grease disposal from the kitchen.		
8.11) What kinds farm cleaners, solvents and other chemicals are poured down the drain?	Moderate use of cleaning products that end up in wastewater. Hazardous chemicals never poured down the drain or toilet.	Moderate use of cleaning products. Small amounts of hazardous chemicals poured down drain or toilet.	Heavy use of cleaning products. Septic system used to dispose of hazardous chemicals (solvents, degreasers, acids, oils, paints, disinfectants, pesticides). ⁴		
8.12) How is water conserved in the household?	Water-conserving fixtures and practices used. Drips and leaks fixed immediately.	Some water-conserving steps taken (low-flow shower heads, fully loaded washing machine or dishwasher).	No water-conserving practices. High-volume standard bathroom fixtures used. Leaks not repaired.		
8.13) How is the water softener recharge handled.	Underground drainage separated at least 50 feet from well and septic systems (75 feet from the farm well for greenhouse with employees or open to the public).	Open ditch, farm field drain.	Septic system.		
8.14) How are discharges from footer drains, basement sumps and roof drainage handled?	Grassed area, open ditch, field drain.		Directed into the septic system.		

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GENERAL LIVESTOCK MANAGEMENT

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>9.01) If the farm has 50 Animal Units (AU) or more, was the Michigan Right to Farm GAAMP for Site Selection and Odor Control for New and Expanding Livestock Facilities (Site Selection GAAMPs) used to site new or expanding livestock production facilities constructed after January 1, 2017?*</p>	<p>Farm has built new or expanded since January 1, 2017 and has Michigan Department of Agriculture and Rural Development (MDARD) Site Selection GAAMPs verification. MDARD verification is required for sites housing 50 AU or greater in Category 1 and Category 2 locations.</p>		<p>The farm has built new or expanded since January 1, 2017, and does not meet all of the Site Selection GAAMPs, or the determination has not been made.</p>	<p>Consistent with Site Selection and Odor Control GAAMPs.</p>	
<p>9.02) If the farm has 50 Animal Units (AU) or more, was the Michigan Right to Farm GAAMPs for Site Selection and Odor Control for New and Expanding Livestock Facilities (Site Selection GAAMPs) used to site new or expanding livestock production facilities constructed after June 1, 2000 and prior to December 31, 2016?*</p>	<p>Farm has Michigan Department of Agriculture and Rural Development (MDARD) Site Selection GAAMPs verification. MDARD verification is required for sites housing 500 AU or greater in a Category 1 location or 250 AU or greater in a Category 2 location.</p> <p>The farm has built new or expanded between 2000 and 2016 to house between 50 and 499 AU in a Category 1 location or between 50 and 249 AU in a Category 2 location and the producer submitted the Siting checklist to MDARD for an informal review and MDARD determined the site meets all of the Site Selection GAAMPs.</p>	<p>The farm has built new or expanded between 2000 and 2016 to house between 50 and 499 AU in a Category 1 location or between 50 and 249 AU in a Category 2 location and the producer used the Siting checklist and the producer determined the site meets all of the Site Selection GAAMPs.</p>	<p>The farm has built new or expanded since 2000 and does not meet all of the Site Selection GAAMPs, or the determination has not been made</p>	<p>Consistent with Site Selection and Odor Control GAAMPs</p>	

* These questions do not apply to farms where siting is not applicable, such as farms located in municipalities with populations greater than 100,000 where a zoning ordinance has been enacted to allow for agriculture. In addition, siting does not apply to research and educational institutions, or other locations as determined by MDARD.

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GENERAL LIVESTOCK MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
9.03) If the farm has less than 50 Animal Units, was the Michigan Right to Farm Site Selection GAAMP used to determine the site category for facilities constructed after June 1, 2000?*	The farm proactively achieved verification under the <i>Michigan Right to Farm Site Selection GAAMPs.</i>	Land use zoning allows for agriculture or the location has been determined to be a Category 1, 2, or 3 site and is not required to complete the <i>Site Selection GAAMPs</i> verification process.	The farm has been determined to be a Category 4 location and is not eligible for MAEAP Livestock or Farmstead verification.	Zoning map or zoning use description provided, or category determination provided by MDARD. (See FAS 112S)	
* These questions do not apply to farms where siting is not applicable, such as farms located in municipalities with populations greater than 100,000 where a zoning ordinance has been enacted to allow for agriculture. In addition, siting does not apply to research and educational institutions, or other locations as determined by MDARD.					
9.04) Is there a utilization plan for the manure nutrients generated on the farm?	Total nutrient production is known, and sufficient crop acres available to use manure nitrogen and phosphorus safely. <i>Manure applications discontinued if the soil phosphorus test reaches 300 pounds per acre (150 ppm) of Bray P1 phosphorus.</i> Or other utilization plan safely uses manure nutrients.		Manure nutrient production is unknown, or nutrient production exceeds land capacity, or no plan exists for manure utilization.		
9.05) What manure management records are maintained?	Complete application <i>records of manure analysis, soil test results and rates of manure application for individual fields are maintained.</i>	A minimum of one season of manure application records, or partial manure application records have been kept.	Minimal or no records maintained.		

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GENERAL LIVESTOCK MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
9.06) Is there an emergency plan in place in the event of a manure spill?	Up-to-date written plan available and understood by all farm employees. <i>All uncontained spills or releases should be reported to the MDARD Agriculture Pollution Emergency Hotline: 1-800-405-0101, or to the EGLE Pollution Emergency Alerting System: 1-800-292-4706.</i>	Incomplete or out-of-date action plan available.	No emergency action plan that deals with manure spills.	Up-to-date emergency farm plan.	
9.07) How are animal mortalities handled?	Animals are buried, incinerated (requires permit), land filled, placed in a compost pile or picked up by a rendering service within 24 hours of death or stored for a maximum of seven days at 40 degrees F or a maximum of 30 days at 0 degrees F before proper disposal of the carcass.		Animals are not buried, incinerated, land filled, placed in a compost pile or picked up by a rendering service within 24 hours of death. Or, stored for more than seven days at 40 degrees F or more than 30 days at 0 degrees F before disposal of the carcass. ¹⁵	Disposal of dead animal bodies is done according to the Bodies of Dead Animals Act (BODA), as amended in 2008. Up-to-date forms on file for verification. (See FAS 112S) Forms for recording mortality disposal including burial record forms and compost record forms are available on the MAEAP website at: https://maeap.org/resource-library/?resource-type=livestock-system-resource .	
9.08) If burial of mortality (including both individual and common graves) is used, what are the isolation distances for the burial site(s)?	Burial site is located at least 200 feet from any well and dead animal(s) do not come into contact with waters of the state.		Site(s) is located less than 200 feet from any well and/or come into contact with waters of the state. ¹⁵		

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GENERAL LIVESTOCK MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
9.09) If mortality composting is used, what are the isolation distances for the composting site(s)?	Site is located at least 200 feet away from waters of the state, 200 feet from any well, 200 feet from nearest non-farm residence and/or 2 feet above seasonal high-water table.		Site(s) is located less than 200 feet away from waters of the state, 200 feet from any well, 200 feet from nearest non-farm residence, and 2 feet above seasonal high water table.¹⁵	Isolation distances meet BODA requirements. The BODA supplement, available at the MAEAP.org website, has been completed and reviewed.	
9.10) How are animal healthcare needles and syringes disposed?	Sharps are put into a puncture-resistant container, labeled and taken to licensed landfill.		Disposal at landfill without protective containment or disposed on the farm.²	Use of labeled, puncture-proof container for sharps.	
9.11) How are unwanted or unusable animal medications and healthcare products disposed?	Taken to licensed landfill, veterinarian, or distributor for disposal.		Flushed down the drain, dumped on the farm or dumped in the manure pit.⁴		
9.12) Do livestock waterers have backflow prevention to protect the well from contamination?	All waterers have backflow prevention built into the waterers or in the water line to the waterers, or an air gap.	Most waterers have backflow prevention.	No backflow prevention for livestock waterers.¹	Backflow prevention on livestock waterers.	

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GENERAL LIVESTOCK MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>9.13) Do rain, snow (including plowed snow) roof water or surface water come into contact with manure, compost, feed/silage, livestock lots or travel lanes resulting in contaminated runoff?</p>	<p>There is no clean water contact with the listed areas, or contaminated runoff is collected or treated and does not discharge directly to surface water.</p>		<p>Areas are exposed to rain/snow or surface water, and runoff is not collected or treated. Runoff discharges directly to surface water.⁴</p>	<p>Visual inspection of the farmstead. Flow patterns are most apparent during or shortly after a rainfall event and/or thaw.</p>	

LIVESTOCK MANURE STORAGE

<p>10.01) How far is the <u>liquid</u> manure storage from any well?</p> <p>(Private wells include irrigation, livestock watering, cooling etc.</p> <p>Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees)</p> <p>Use Table 1 in FAS107 for well type identification.*</p>	<p>For private wells:</p> <ul style="list-style-type: none"> • 150 feet or greater <p>For Type IIb or Type III public wells:</p> <ul style="list-style-type: none"> • More than 800 feet or greater from the farm well, OR, • Approved isolation distance deviation from the Local Health Department for the well, OR, • Between 200 and 800 feet with approved storage and well, and protective site features.* <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 150 feet.¹</p> <p>For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well.³</p>	<p>Appropriate well isolation distance for site characteristics.</p>	
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*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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LIVESTOCK MANURE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
<p>10.02) How far is the <u>dry</u> manure storage from any well?</p> <p>(Private wells include irrigation, livestock watering, cooling etc.</p> <p>Type IIb and Type III (Public wells include wells that service the milkhouse, bathrooms, drinking fountains, etc. on dairy farms or farms with employees)</p> <p>Use Table 1 in FAS107 for well type identification.*</p>	<p>For private wells:</p> <ul style="list-style-type: none"> • 150 feet or greater OR • 50 feet or greater, for covered facility with protective site features, with an MDARD review. <p>For Type IIb or Type III public wells:</p> <ul style="list-style-type: none"> • More than 800 feet or greater from the farm well, OR, • Approved isolation distance deviation from the Local Health Department for the well, OR, • Between 200 and 800 feet with approved storage and well, and protective site features.* • 75 feet or greater for covered facility with protective site features, with MDARD review.* <p>For Type IIa public wells, refer to FAS 112S.</p>		<p>For private wells: Less than 150 feet.¹</p> <p>For public wells (dairy farms or farms with employees): Less than 800 feet from the farm well.³</p>	<p>Appropriate well isolation distance for site characteristics.</p>	
LIQUID MANURE STORAGE SYSTEMS					
<p>10.03) Are structures properly maintained?</p>	<p>Structure is properly maintained and in good condition. No damage to the liner or breaches evident. No visible signs of issues with push-off ramps, load-out areas, pumps, piping, etc.</p>	<p>Structure appears to be in good condition.</p>	<p>Lining material integrity broken. Evidence of overflow. Coarse-textured soils, no clay liner. Evidence of extensive cracking, leaning, etc. Structure needs repair.</p>	<p>MAEAP manure storage review sheets completed. (See FAS 112S). Additional criteria may be required for CNMP development.</p>	

*See MAEAP water stewardship technician for additional information on criteria for reduced isolation distances.

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LIVESTOCK MANURE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
LIQUID MANURE STORAGE SYSTEMS (CONTINUED)					
10.04) What design standards are utilized for liquid storage structures?	As-built documentation is available. <i>Construction design for manure storage and treatment facilities meets standards and specifications in accordance with MI NRCS-FOTG, Concrete Manure Storages Handbook (MWPS-36), Circular Concrete Manure Tanks publication TR-9 (Midwest Plan Service, 1998).</i> For steel: Manual of Steel Construction, American Institute of Steel Construction. For concrete: Building Code Requirements for Reinforced Concrete, ACI 318, American Concrete Institute. For earthen storage, the permeability of the earthen liner is known and the earthen storage meets NRCS standard 313: Waste Storage Facility. No evidence of overflow.	Storage was designed and built by professionals, but the as-built design standards are unknown. The storage structure meets the requirements as outlined in Extension Bulletin FAS112S.	Storage was designed and built without engineering standards.	Appropriate manure storage design and installation demonstrated. Completed MAEAP manure storage review sheets or as-built engineering standards available. (See FAS 112S)	
10.05) How is freeboard maintained and overflow prevented in storage structures?	Minimum freeboard is known and observed. <i>A minimum freeboard of 12 inches (6 inches for fabricated structures) plus the additional storage volume necessary to contain the precipitation and runoff from a 25-year, 24-hour storm event.</i> Freeboard markers are in place.	No evidence of manure overflowing storage. Safe freeboard level is known but not visibly marked. Freeboard not always maintained.	Evidence that manure overflowed the storage structure. Freeboard level is unknown and unmarked.	Appropriate manure storage management demonstrated. Safe freeboard level indicated on storage. Runoff is calculated.	
10.06) Is clean water (i.e. roof and surface runoff) diverted away from the manure storage facility?	Clean water is diverted away from the manure storage.	Clean water is not diverted, but storage is designed to accommodate the additional water while still maintaining the freeboard.	Potential exists for overflow of manure storage.	Appropriate manure storage management demonstrated. Clean water diverted from manure storage.	

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LIVESTOCK MANURE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
SOLID-BEDDED MANURE STORAGE SYSTEMS					
10.07) At the farmstead, where is manure <u>temporarily</u> stored?	<i>Manure is temporarily stacked on an impermeable pad with sides.</i> Runoff does not flow onto neighboring property or into surface waters.	<i>Manure is temporarily stacked on the ground with appropriate management to minimize leaching and prevent runoff flow onto neighboring property or into surface waters – such as rotating locations, complete periodic removal of manure, seeding of previous location and records documenting location used.</i>	Manure is temporarily stacked on the ground without appropriate management to minimize leaching and prevent all runoff such as rotating locations, complete periodic removal of manure, seeding of previous location and records documenting location used. For example: manure is stacked in the same location every year, piles are located within 50 feet of surface water, and/or there is evidence that manure-contaminated runoff flows to surface water ⁴ or to adjacent property.	Appropriate temporary manure stacking demonstrated at the farmstead for surface water and groundwater protection.	
10.08) How far are the buildings with bedded packs from a well?	Isolation distance is maximized to the extent possible but is not less than 75 feet for public wells and 50 feet for private wells.		For public wells: Less than 75 feet. ¹ For private wells: Less than 50 feet. ¹	Appropriate well isolation distance for the type of well (public or private) or approved health department deviation for well isolation.	
10.09) At the farmstead, what management practices are used to reduce odors and pests from outside manure stockpiles?	<i>Stockpiled manure is at least 50 feet away from property lines or 150 feet away from non-farm homes <u>and</u> stockpiled manure is covered with a tarp, fleece blanket, straw, woodchips or other materials or additives to reduce odors and pests.</i>	<i>Stockpiled manure is at least 50 feet away from property lines or 150 feet away from non-farm homes <u>or</u> stockpiled manure is covered with a tarp, fleece blanket, straw, woodchips or other materials or additives to reduce odors and pests.</i>	Stockpiled manure is closer than 50 feet to property lines or 150 feet to non-farm homes and stockpiled manure is not covered. No additives are used to reduce odors and pests.	Appropriate temporary manure stacking demonstrated at the farmstead.	

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LIVESTOCK MANURE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
SOLID-BEDDED MANURE STORAGE SYSTEMS (CONTINUED)					
10.10) At the farmstead, what management practices are used to reduce odors and pests from outside temporary stacks or solid manure storage structures.	Less than 90 days. Stacked in different locations each time.	More than 90 days, but <i>less than 365. Stacked in different location each time.</i>	365 days or more. Stacked in same location each time.	Manure not stacked for more than 365 days.	
10.11) How far away is the well from temporary manure stockpiling or transfer areas?	Isolation distance is maximized to the extent possible but is not less than 75 feet for public wells and 50 feet for private wells.		Isolation distance is less than 75 feet for public wells and 50 feet for private wells.^{1,3}	Appropriate well isolation distance for the type of well (public or private) or approved health department deviation for well isolation.	
10.12) At the farmstead, how are solid manure storage structures designed and constructed?	Constructed with a floor of concrete, or equivalent material, and with walls that prevent leachate from entering surrounding soils. Roof or cover prevents rainfall from entering storage.	Constructed with floor of compacted asphalt or fine- or medium-textured soils. Leachate will have direct contact with earthen floor or side walls. The permeability of the earthen floor is known and the earthen floor meets NRCS Standard 313. Leachate and rainfall/snowmelt runoff discharged into a designed system.	Earthen floor constructed with coarse-textured soils. Rainfall and leachate will have direct contact with earthen floor or sidewalls. Runoff and leachate are uncontrolled and discharge directly to surface water.⁴	Appropriate manure storage design and management for leachate/runoff.	
10.13) How are animal facilities with bedded manure packs designed and constructed?	Constructed with a floor of impermeable material or fine-textured soil. Adequate bedding is provided to maintain solid nature of manure. No rainfall or runoff enters the manure area. No waterers in the building.	Medium- to fine-textured soils, limited bedding provided, some rainfall or runoff enters manure area. Waterers in the building.	Building has an earthen floor on coarse-textured soil. Contaminated runoff discharges directly to surface water.⁴	Appropriate manure storage design and management for leachate/runoff.	

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LIVESTOCK MANURE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
SOLID-BEDDED MANURE STORAGE SYSTEMS (CONTINUED)					
10.14) Is runoff from manure storage area(s) directly discharging to surface or groundwater?	<i>Provisions made to control and/or treat runoff from stored manure.</i> A designed and maintained vegetative infiltration area or runoff storage basin effectively handles storage runoff.	Inadequate runoff control. Signs of manure runoff past perimeter of vegetated area or exceeding storage basin capacity.	Manure storage runoff discharges directly to surface water. ⁴	Appropriate runoff control from manure storage area(s).	

LIVESTOCK LOT MANAGEMENT

11.01) How far is the livestock lot located from any well? (Private wells include irrigation, livestock watering, cooling etc.)	50 feet or more from private wells (75 feet from public wells including the farm well for dairies or farms with employees).		Less than 50 feet from private wells¹ (less than 75 feet from public wells including the farm well for dairies or farms with employees). ⁴	Appropriate livestock isolation distance from water well(s).	
11.02) How far is the livestock lot from surface water?	Livestock lot is more than 300 feet from surface water and, <i>runoff control protects neighboring land areas and prevents direct discharge to surface waters or groundwater.</i>	Livestock lot is less than 300 feet from surface water and, <i>runoff control protects neighboring land areas and prevents direct discharge to surface waters or groundwater.</i>	Evidence that manure-contaminated runoff flows from lot to surface water or to adjacent property. ⁴	Appropriate livestock isolation distance from surface water.	
11.03) What efforts are made to divert unwanted drainage from upslope watersheds and roof water from becoming contaminated with manure?	<i>Provisions are made to collect, store, utilize and/or treat manure accumulations and contaminated runoff from outside open lots used for raising livestock.</i> Clean runoff is diverted away from the livestock lot.	Most roof water and upslope watershed drainage are diverted around livestock lot. Water that contacts manure is treated or contained and applied to cropland.	No clean water system in place. Most roof water and upslope watershed drainage runs through lot.	Appropriate clean water management for livestock lot(s).	

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LIVESTOCK LOT MANAGEMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
11.04) How is livestock lot runoff managed to protect surface water, groundwater and/or neighboring properties?	All lot runoff is directed to a properly designed and maintained runoff storage basin, or runoff is directed to a designed settling basin and vegetated infiltration area where vegetation is annually harvested. No evidence of runoff to surface water, groundwater and/or neighboring properties, or ponding in low areas.	No evidence of runoff flow to surface water or ponding in low areas. Vegetation or cropland that is annually harvested exists between lot and surface water.	Evidence of runoff discharging directly to surface water⁴ or intermittent waterway.	Appropriate runoff control for livestock lot(s).	
11.05) How often is manure scraped and removed from livestock lots?	Manure is scraped and removed periodically from livestock lot or other heavy use areas.		Manure is seldom scraped and removed from lot and feeding and watering areas.	Appropriate manure management in livestock lot(s).	
11.06) What type of floor or base does the livestock lot have?	Properly maintained concrete or compacted asphalt.	Continuous-use, compacted dirt or compacted gravel. Minimal plant material growing.	Poorly compacted dirt or gravel layer as indicated by plant growth.	Appropriate floor or base in livestock lot(s).	

SILAGE STORAGE

12.01) How far is the silage storage located from a water well?	More than 300 feet.	50 to 300 feet.	Less than 50 feet.		
12.02) How far is silage storage from surface water?	More than 300 feet.	50 to 300 feet.	Less than 50 feet.		
12.03) What type of soil is on the property?	Fine-textured soils (clays).	Medium-textured soils (silt loam, loam).	Coarse-textured soils (sands).		

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SILAGE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
12.04) Does untreated silage leachate or polluted runoff run to a low area and pond?	<i>Provisions are made to control and/or treat leachate to protect groundwater and surface water.</i>		Silage leachate ponding and/or runoff are evident.	No evidence of leachate runoff and/or ponding.	
12.05) Is clean water (rain water, snow melt, etc.) diverted away from stored feed?	Clean water is diverted away from silage.		Clean water is not diverted away from silage, resulting in contaminated runoff.		
12.06) Are silage leachate and polluted runoff collected and/or treated?	<i>Provisions are made to control contaminated runoff and/or treat leachate to protect groundwater and surface water</i> from a direct discharge. (Includes capturing of leachate from drains.) Designed system or management controls are in place.	Designed system in place but not maintained.	No system in place. OR, Lack of appropriate management. OR, Directly discharged to surface water ⁴ or groundwater.	Appropriate silage leachate management.	
12.07) What moisture content is silage typically harvested and stored?	<i>Generally below 67 percent.</i>	Between 67 and 80 percent.	Over 80 percent.		
BUNKER SILOS					
12.08) What type of floor does the silage storage have?	Concrete or compacted asphalt No cracking (cracks that a finger can fit into or spider webs) or cracks are repaired.	Earthen floor with fine-textured soils (clay, clay loam, silty clay loam, sandy clay loam and silty clay).	Earthen floor has permeable soils or concrete, asphalt or lined surface with many cracks.	A maintained impervious surface or fine-textured earthen floor.	
12.09) Is silage covered?	Silage is covered to prevent silage leachate.	Cover leaks.	No cover.		

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SILAGE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
BUNKER SILOS (CONTINUED)					
12.10) Are the silage pad and surrounding area kept clean and free of loose silage?	Pad is kept clean.	Evidence of spilled or loose silage.	Pad is not kept clean.		
12.11) Is silage kept with a vertical face to reduce contact with clean water?	Yes.	Mostly vertical.	No.		
12.12) Does an emergency plan exist for times when leachate production exceeds current management controls?	An up-to-date written plan is available and understood by all farm employees.	Emergency action plan is incomplete or out-of-date.	No emergency action plan that covers excess leachate.	An up-to-date emergency action plan.	
12.13) Are whole tires or tire sidewalls used for securing the cover on bunker silos?	-Use 3,000 or less whole tires (unless EGLE approved). No limit on tire side walls. -Whole tires are properly drilled for water drainage.		- Use more than 3,000 whole tires without EGLE approval.¹² - Whole tires are not drilled for water drainage.		
12.14) How are tires and tire sidewalls stored?	Tire and tire sidewall piles are: - not more than 40' x 200' horizontal area - not higher than 15' - no closer than 30' between piles. - no closer than 20' from property lines. - no closer than 60' from buildings and structures. - not stored with hazardous products.		Tire and/or tire side wall storage is not in conformance with low risk guidelines.		

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SILAGE STORAGE (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
BUNKER SILOS (CONTINUED)					
12.15) In the case of a tire fire, does the farm have an up-to-date emergency farm plan?	The farm has an up-to-date emergency farm plan that is understood by employees.	More than one-year-old plan or an incomplete plan is available.	No emergency farm plan when more than 3,000 whole scrap tires are stored on the farm. ¹⁷	An up-to-date emergency action plan.	
UPRIGHT SILOS					
12.16) If there is a floor drain, is leachate collected, treated and/or stored and applied at agronomic rates?	All leachate is collected, treated, and/or stored and applied at agronomic rates.		Leachate is not collected and directly discharges to surface water. ⁴	Appropriate silage leachate management demonstrated.	
12.17) How often is the silo inspected?	Twice a year.	Once a year.	Less than once a year.		
12.18) Is leachate evident around the outside of the silo?	No.	Yes. Leachate is treated or stored.	Yes. Leachate is not treated or stored.		
12.19) For glass-lined storage facilities, how old is the lining?	Less than 6 years.	Between 6 and 40 years.	Older than 40 years.		
SILAGE BAGS					
12.20) Are holes repaired and the bag watertight?	Yes, holes are repaired and the bag is watertight.	Some holes are repaired.	Holes are not repaired, and moisture is entering the bag.		
12.21) Is plastic disposed of in a licensed landfill?	Yes.		No.		
12.22) Is there a mechanism for collecting or treating accumulated leachate?	Yes, leachate is collected and does not pond or reach surface water.		No, Leachate runs from bags to surface water. ⁴	Any leachate managed properly.	

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MILKING CENTER WASTEWATER TREATMENT

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
13.01) How many gallons of water per cow per day are utilized in parlor cleanup?	Fewer than 10 gallons.	Between 10 to 20 gallons.	More than 20 gallons.		
13.02) Where are milking center chemicals, disinfectants and antibiotics stored?	Stored in partitioned off, protected area away from drains.	Stored in a location where a spill could reach the drain.	Stored in high-traffic area near drains.		
13.03) How is plate cooler water handled?	100% of plate cooler water is reused for livestock watering or other livestock-related use or, permitted for discharge.	Less than 10,000 gallons per day are discharged onto ground surface. Discharged water does not intercept surface water.	More than 10,000 gallons per day are discharged onto ground surface or intercept surface water without a permit.⁴	Appropriate cooling water management demonstrated.	
TOTAL COLLECTION METHOD. IF THIS METHOD IS NOT USED, SKIP TO THE NEXT SECTION.					
13.04) Is all wastewater collected and stored?	Wastewater is stored, used or hauled daily.	Wastewater passes through a properly functioning filtration system.	Wastewater is directly discharged to a lake, drainage ditch, stream or field.⁴	Appropriate collection of wastewater demonstrated. Records of application.	
13.05) Is rejected milk collected and stored?	Rejected milk is stored, hauled out or fed.		Milk is discharged,⁴ put into septic system or put into treatment strip.	Appropriate rejected milk management demonstrated.	
MILKING CENTER SEPTIC SYSTEMS. IF THIS METHOD IS NOT USED, SKIP TO THE NEXT SECTION.					
13.06) Is the septic system managed adequately to handle the volume of wastewater?	The septic system <i>is managed in a manner to prevent pollution to waters of the state.</i>		The septic system is not managed adequately and discharges directly to surface water.⁴	Reject milk properly managed. System operating effectively, without evidence of a discharge.	
13.07) Is the septic system periodically pumped?	Tank pumped as needed or every three to four months.	Annual pumping.	Tank is rarely or never pumped.		

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MILKING CENTER WASTEWATER TREATMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
MILKING CENTER SEPTIC SYSTEMS. IF THIS METHOD IS NOT USED, SKIP TO THE NEXT SECTION.					
13.08) Is all milkhouse wastewater treated by the septic system?	All milkhouse wastewater is treated by the septic system.		Some wastewater is not treated or is discharged to tile, inlet or drainage ditch. ⁴	Collection and treatment of all wastewater demonstrated.	
13.09) What are the parlor cleanup practices?	Milk, milky rinse water, manure, and feed waste are land applied or otherwise appropriately utilized, and are never discharged to septic or other infiltration type treatment systems.	Some milk, milky rinse water, manure, or feed waste is discharged to septic or other infiltration-type treatment systems. Systems are monitored and managed for proper operation.	Significant milk, milky rinse water, manure, or feed waste is discharged to septic or other infiltration-type treatment systems. Wastewater is discharged directly to surface water. ⁴	Appropriate milking center cleanup practices demonstrated.	
APPLICATION OF WASTEWATER VEGETATED INFILTRATION SYSTEM. IF THIS METHOD IS NOT USED, SKIP TO THE NEXT SECTION.					
13.10) Is storage used prior to treatment, such as a settling tank or detention basin?	Properly sized settling tank, detention basin or other pretreatment system is used.	Undersized settling tank, lagoon or other pretreatment system.	No pretreatment.		
13.11) Does the system handle the capacity of milking center wastewater generated?	Infiltration area effectively treats the quantity of wastewater generated. <i>Treatment area is managed to prevent pollution to waters of the state.</i>	Infiltration area shows minor erosion, wastewater ponding or burned vegetation.	Infiltration area has excessive erosion, wastewater ponding or burned vegetation.	Properly operating system confirmed by visual inspection of vegetated infiltration system. Refer to <i>Guideline for Milking Center Wastewater</i> (Wright and Graves, 1998) and <i>Milking Center Wastewater Guidelines</i> (Holmes and Struss, 2009) for more information.	
13.12) How is the designed infiltration system maintained?	<i>Vegetation maintained and harvested at least once per year.</i> Accumulated solids removed, if needed.	Occasional maintenance.	No maintenance.	Vegetation maintained and harvested. Records of maintenance.	

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MILKING CENTER WASTEWATER TREATMENT (CONTINUED)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	YOUR RISK
DIRECT DISCHARGE TO SURFACE OR GROUNDWATER					
13.13) Is wastewater directly discharged to a lake, drainage ditch, stream or field?	<i>Milk parlor and milkhouse wastewater are managed in a manner to prevent discharge into waters of the state.</i>		Milking center wastewater is discharged directly to surface water. ⁴	No discharge present. It is acceptable to discharge milk parlor and milkhouse wastewater into constructed wetlands designed and intended to process those wastes. (NRCS practice standard 656 “Constructed Wetland.”)	

OTHER ENVIRONMENTAL RISKS IN THE FARMSTEAD SYSTEM

14.01) Are there other activities, products, processes/equipment, services, by-products, and/or waste at this farmstead that pose contamination risks to groundwater or surface water?	No additional risk(s) identified.	Plan to mitigate the identified contamination risk(s).	No plan to mitigate identified contamination risk(s).	No other environmental risks found at farmstead.	
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FARMSTEAD SYSTEM IMPROVEMENT ACTION PLAN

Develop a Farmstead Improvement Action Plan for risks on the farmstead beginning on the inside cover of this bulletin. Once the plan is implemented, MAEAP Farmstead System verification can be requested by calling the Michigan Department of Agriculture and Rural Development at (517) 284-5609.

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Table 2. Federal, state and local environmental requirements for operation of this farm business.

This table contains the typical requirements for a farm business. There may be additional environmental requirements due to the type of operation and location. Contact the local or state permitting agencies for further information: EGLE Environmental Assistance Hotline — 1-800-662-9278, MDARD information — 1-800-292-3939.

Environmental regulatory requirements	Description	Frequency	Administering agency	Your expiration date
Private pesticide applicator certification	Any persons using or supervising the use of restricted-use pesticides (RUP) in the production of an agricultural commodity on their own or their employer's land must be a certified pesticide applicator.	3 years	MDARD/Pesticide and Plant Pest Management Division (PPPM)	
Pesticide safety training for pesticide workers	The federal Worker Protection Standard for agricultural pesticides requires employers of pesticide handlers and workers to train employees on pesticide safety. Agricultural employers must be able to verify compliance.	Each employee must be trained every 5 years	MDARD/PPPM	
NPDES permit CAFO	National Pollutant Discharge Elimination System permit for large concentrated animal feeding operations (CAFOs).	5 years or as noted on permit	EGLE/Water Resources Division	
Farm motor vehicle fuel storage tanks greater than 1,100 gallon capacity (above- and below-ground tanks)	Fuel storage tanks have to be certified (aboveground) or registered (underground); a site plan has to have been submitted to the LARA before the installation is placed into service. Smaller tanks have other requirements to be met.	Annual	Department of Licensing and Regulatory Affairs (LARA)	
Air use permit	Permit to install and operate equipment or processes, which may emit air contaminants (incinerators for burning animal carcasses or manure, and biodigesters and associated equipment are examples).	Before construction	EGLE/Air Quality Division	N.A.
Groundwater discharge permit	Any discharge of waste or waste effluent into or onto the ground (e.g., egg wash water and milk cooling water [over 10,000 gallons/day] that is discharged), and any livestock facility over 5,000 animal units.	5 years	EGLE/Water Resources Division	
Well permit	A person who installs a well, pump or pumping equipment shall comply with applicable laws, regulation, ordinances and codes.	Before construction	Local health department	N.A.
Septic permit (house and farm operation)	The first step in the process of determining if a piece of land that does not have municipal wastewater services available can be considered for an on-site septic system.	Before construction	Local health department	N.A.

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This table contains the typical requirements for a farm business. There may be additional environmental requirements due to the type of operation and location. Contact the local or state permitting agencies for further information: EGLE Environmental Assistance Hotline — 1-800-662-9278, MDARD information — 1-800-292-3939.

Environmental regulatory requirements	Description	Frequency	Administering agency	Your expiration date
Land and water interface construction permits	Construction activities (dredging, filling, draining, construction, structure placement) in, across, under water.	Before construction	EGLE/ Water Resources Division	N.A.
Soil erosion and sedimentation control permit	Earth change activities within 500 feet of a lake or a stream, or that will disturb an area greater than 1 acre in size.	Before construction	County soil erosion permitting agency	
Water use reporting	Agricultural water users with the capacity to withdraw surface or groundwater that exceeds 100,000 gallons per day (70 gallons per minute) are required to report actual water withdrawals annually.	Annual	MDARD	
Other environmental guidelines	Description	Administering agency		
Manure management and utilization	The Michigan Right to Farm Act (Act 93 of 1981) requires the establishment of generally accepted agricultural and management practices (GAAMPs). Agricultural producers who voluntarily follow these practices are provided protection from public or private nuisance litigation. The GAAMPs are reviewed annually. The latest GAAMPs can be accessed at: www.michigan.gov/mdard .	MDARD		
Pesticide utilization and pest control				
Nutrient utilization				
Site selection and odor control for new and expanding livestock production facilities				
Irrigation water use				
MAEAP verification: Livestock, Farmstead, Cropping and the Forest, Wetlands and Habitat Systems.	MAEAP systems verification (PA 1 & 2, 2011) is valid for five years. MAEAP verification in good standing is dependent on following the practices specific to each system, being in conformance with the applicable GAAMPs, an annual plan review and update (livestock system) and updates as necessary as conditions change on the farm.	MDARD		

Table 3. Legal citations for environmental risks in Farm♦A♦Syst.

Footnote	Michigan Law	Description
1	Public Health Code, Public Act 368 of 1978	Part 127: Water Supply and Sewer Systems
2		Part 138: Medical Waste Regulatory Act
3	Safe Drinking Water Act, Public Act 399 of 1976	
4	Natural Resources and Environmental Protection Act 451 of 1994	Part 31: Water Resources Protection
5		Part 55: Air Pollution Control
6		Part 83: Pesticide Control
7		Part 85: Fertilizers
8		Part 111: Hazardous Waste Management
9		Part 115: Solid Waste Management
10		Part 117: Septic Waste Servicers
11		Part 121: Liquid Industrial Waste
12		Part 169: Scrap Tires
13		Part 201: Environmental Response
14		Part 327: Great Lakes Preservation
15	Bodies of Dead Animals Act, Public Act 239 of 1982 as amended	
16	Fire Prevention Code Public Act 207 of 1941	Storage and Handling of Flammable and Combustible Liquids
17	Grade A Milk Law, Public Act 266 of 2001	
18	Michigan Department of Agriculture and Rural Development Pesticide Regulation 637	Pesticide Use
19	Michigan Department of Agriculture and Rural Development Regulation 642	On Farm Fertilizer Bulk Storage
Federal Law		
20	Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)	
21	Title III of the Superfund Amendments and Reauthorization Act of 1986, also known as the Emergency Planning and Community Right-to-Know Act	
22	Worker Protection Standard for Agricultural Pesticides	
23	Clean Water Act, Oil Pollution Regulation	

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BUSINESS NAME: _____
 BUSINESS OWNER NAME: _____
 BUSINESS PHONE: _____
 EXTENSION: _____
 BUSINESS WEB SITE: _____
 DESCRIPTION: _____

BUSINESS ADDRESS INFORMATION (Main Office or Home Address)

(MAILING) STREET: _____
 (MAILING) P.O. BOX: _____
 (MAILING) CITY: _____
 (MAILING) STATE: _____
 (MAILING) ZIP CODE: _____

OWNERS CONTACT INFORMATION

SALUTATION: (Circle one)
 MR or MRS or MS
 FIRST NAME: _____
 LAST NAME: _____
 CONTACT ROLE: _____
 EMAIL ADDRESS: _____

HOME PHONE NUMBER: _____ - _____ - _____
 MOBILE/CELL NUMBER: _____ - _____ - _____
 (MAILING) STREET: _____
 (MAILING) P.O. BOX: _____
 (MAILING) CITY: _____
 (MAILING) STATE: _____
 (MAILING) ZIP CODE: _____

FARM MANAGER CONTACT INFORMATION

SALUTATION: (Circle one)
 MR or MRS or MS
 FIRST NAME: _____
 LAST NAME: _____
 CONTACT ROLE: _____
 EMAIL ADDRESS: _____

HOME PHONE NUMBER: _____ - _____ - _____
 MOBILE/CELL NUMBER: _____ - _____ - _____
 (MAILING) STREET: _____
 (MAILING) P.O. BOX: _____
 (MAILING) CITY: _____
 (MAILING) STATE: _____
 (MAILING) ZIP CODE: _____

FARM INFORMATION

FARM NAME: _____
 (If no physical address, please use Section, Township, Range, **and** Latitude and Longitude)
 FARM SITE STREET ADDRESS: _____
 FARM SITE CITY: _____
 STATE: **MICHIGAN** (ONLY) (Mailing Address May Vary)
 FARM SITE ZIP CODE: _____
 FARM SITE COUNTY: _____
 FARM SITE TOWNSHIP: _____
 LATITUDE: _____ LONGITUDE: _____
 SECTION: _____ TIER: _____ RANGE: _____

(If there is no mailbox at the farm site location or not a place that receives mail.)

FARM MAILING ADDRESS: _____
 (MAILING) STREET: _____
 (MAILING) P.O. BOX: _____
 (MAILING) CITY: _____
 (MAILING) STATE: _____
 (MAILING) ZIP CODE: _____

ADDITIONAL NOTES:

FARM NAME: _____

Is there Evidence of Discharge: Yes or No

FARMSTEAD

Fuel Storage: (Gallons) _____ (Pounds) _____
Fertilizer Storage: (Gallons) _____ (Pounds) _____
Pesticide Storage: (Gallons) _____ (Pounds) _____
Farmstead Wells (each): _____
EHS Threshold: Yes or No

CROPPING

NMP (Acres): _____
Manure Applied (Acres): _____
Fertilizer Applied (Acres): _____
Pesticide Applied (Acres): _____
Irrigation (Acres): _____
Buffer Strips (Linear Feet): _____
Cover Crops (Acres): _____
No Till (Acres): _____
Conservation Tillage (Acres): _____
Grade Stabilization (Each): _____
Manure Applied (Gallons/Year): _____
Manure Purchased (Gallons/Year): _____
Manure N (Lbs/Year): _____
Manure P (Lbs/Year): _____
Manure K (Lbs/Year): _____

LIVESTOCK

CNMP (Acres): _____
CNMP Written By: _____
Date of CNMP Approval: _____
CNMP Reviewed By: _____
Name of Farm(s) Covered In CNMP: _____
Manure Applied (Acres): _____
Fertilizer Applied (Acres): _____
Pesticide Applied (Acres): _____
Irrigation (Acres): _____
Buffer Strips (Linear Feet): _____
Cover Crops (Acres): _____
No Till (Acres): _____
Conservation Tillage (Acres): _____
Grade Stabilization (Each): _____
Milkhouse Discharge (Gallons/year): _____
Livestock Exclusion (Linear Feet): _____
Silage Pad (Acres): _____
Manure Produced (Gallons/Year): _____
Manure Sold (Gallons/Year): _____
Manure Manifested (Gallons/Year): _____
Manure N (Lbs/Year): _____
Manure P (Lbs/Year): _____
Manure K (Lbs/Year): _____

GREENHOUSE

NMP (Square Feet): _____
Manure Applied (Square Feet): _____
Fertilizer Applied (Square Feet): _____
Pesticide Applied (Square Feet): _____
Irrigation (Square Feet): _____
Buffer/Filter Strips (Square Feet): _____
Annual Cover Crop (Square Feet): _____
No Till (Square Feet): _____
Conservation Tillage (Square Feet): _____
Grade Stabilization (Square Feet): _____
Greenhouse Size (Square Feet): _____
Fuel Storage: (Gallons) _____ (Pounds) _____
Fertilizer Capacity: (Gallons) _____ (Pounds) _____
Pesticide Capacity: (Gallons) _____ (Pounds) _____
Greenhouse Wells (Each) _____
EHS Threshold: Yes or No

FOREST, WETLANDS, AND HABITAT

Land Management Plan (Acres) _____
Plan Type: Forest Wetland Habitat All Three
Plan Writer: _____
Date Plan Written: _____
Date Plan Expires: _____
Forestland (Acres): _____
Grassland (Acres) _____
Wetland (Acres) _____
Restored/Improved Wetland Habitat (Acres): _____
Restored Non-Wetland Habitat (Acres): _____
Management for Invasive Species (Acres): _____
Managed as Buffers (Acres): _____
Length of Streambanks/Shorelines (Feet): _____

Notes: _____

Animal Unit (AU) Conversion Factors by Animal Type and Class			
ANIMAL TYPE	CLASS	AVERAGE ANIMAL WEIGHT	QUANTITY
1,000 Beef cattle or cow/calf pairs = Large CAFO	CALF	450	
	HIGH FORAGE	750	
	HIGH ENERGY	750	
	HIGH FORAGE	1100	
	HIGH ENERGY	1100	
	COW	1000	
700 Mature dairy cattle (whether milked or dry cows), or 1,000 Veal calves = Large CAFO	CALF	150	
	CALF	250	
	HEIFER	750	
	HEIFER	1000	
	LACTATING COW	1400	
	DRY COW	1400	
	VEAL	250	
30,000 Laying hens or broilers liquid, or 125,000 Chickens dry (other than laying hens), or 82,000 Laying hens dry = Large CAFO	DRY SYSTEM		
	LIQUID SYSTEM		
	PULLETS		
55,000 turkeys = Large CAFO	ALL		
500 horses = Large CAFO	ALL	1000	
2,500 swine each weighing over 55 pounds, or 10,000 swine weighing less than 55 pounds = Large CAFO	NURSERY PIG	25	
	GROW-FINISH	150	
	GESTATING	275	
	LACTATING	375	
	BOAR	350	
	OTHER		
10,000 sheep or lambs	ALL	100	
OTHER LIVESTOCK TYPE:		OTHER LIVESTOCK QUANTITY:	
OTHER LIVESTOCK TYPE:		OTHER LIVESTOCK QUANTITY:	

Farm Name: _____

Crop Commodities					
CROP NAME	ACRES	CROP NAME	ACRES	CROP NAME	ACRES
Alfalfa		Cucumbers, Fresh		Oats	
Apples		Cucumbers, Pickling		Peaches	
Apricots		Dry Beans		Pears	
Asparagus		Fruit, Other		Potatoes	
Blueberries		Grapes, Juice		Rye	
Carrots		Grapes, Wine		Small Grain, Other	
Cherries, Sweet		Green Beans		Soybeans	
Cherries, Tart		Greenhouse, Annual		Squash/Pumpkin	
Christmas Trees		Greenhouse, Perennial		Sugar Beets	
Clover, Seed		Greens, Herbs		Sunflower	
Corn, Grain		Hay/Pasture		Vegetable, Other	
Corn, Seed		Hops		Wheat	
Corn, Silage		Mixed Garden		Other:	
Corn, Sweet		Nursery		Other:	

Note: Express acres to the closest quarter acre.

Notes:

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