



MAEAP Livestock System Verification Checklist

(Revised Date: 9/18/16)

A boxed risk level indicates the standard 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 specific 2016 Right to Farm (RTF) Generally Accepted Agricultural Management Practice (GAAMPs).

Whole-farm Nutrient Balance

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
1.01) Is there adequate land base for all nutrients used on the farm?	There is adequate land base or manure is sold or transferred off site.	Lacks adequate land base but fields test low (< 75 PPM) in phosphorus and manure applications can be balanced on nitrogen basis.	Lacks adequate land base.	Complete Manure Management: Getting Started (see Supplement) or use NRCS farm nutrient balance spreadsheet.	YES NO N/A

Farm Site Review

2.01) 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.	YES NO N/A
2.02) 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?	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.		Areas are exposed to rain/snow or surface water, and runoff is not collected or treated. Runoff discharges directly to surface water. ⁴	Visual inspection of the farmstead. Visual inspection of flow patterns are most apparent during or shortly after a rainfall event and/or thaw.	YES NO N/A
2.03) If surface drains are present around the farmstead, what are they collecting and where does the runoff end up?	Surface drains do not capture contaminated runoff or there are surface drains but runoff is collected or treated and does not discharge directly to surface water.		Surface drains collect contaminated runoff and discharge directly to surface water ⁴ or run to low areas and pond.	Visual inspection of the farmstead. Visual inspection of flow patterns are most apparent during or shortly after a rainfall event and/or thaw.	YES NO N/A

Comments:

Farm Site Review (continued)

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
MILKING CENTER WASTEWATER					
3.03) 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 gal/day are discharged onto ground surface. Discharged water does not intercept surface water.	More than 10,000 gal/day are discharged onto ground surface or intercept surface water without a permit.⁴	Appropriate cooling water management demonstrated.	YES NO N/A
3.04) 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.	YES NO N/A
3.05) Is all wastewater collected and stored?	Wastewater is stored, used, hauled daily or passes through a designed treatment system.	Wastewater passes through a properly functioning filtration system.	Wastewater is directly discharged to a lake, drainage ditch, stream or field.⁴	Appropriate wastewater management is demonstrated. No direct discharge.	YES NO N/A
3.06) Is rejected milk collected and stored?	Rejected milk is stored, hauled out or fed.		Milk is discharged to surface water,⁴ put into septic system or put into treatment strip.	Rejected milk is properly managed.	YES NO N/A
MILKING CENTER SEPTIC SYSTEMS (IF THIS METHOD IS NOT USED, SKIP TO THE NEXT SECTION)					
3.07) Is all milkhouse waste water treated by the septic system?	All milkhouse waste water is treated by septic system.		Some waste water is not treated or is discharged to tile, inlet or drainage ditch.⁴	Collection and treatment of all wastewater is demonstrated.	YES NO N/A
3.08) Is the septic system managed adequately to handle the volume of wastewater?	Septic system is managed in a manner to prevent pollution to waters of the state.		Septic system is not managed adequately and discharges directly to surface waters.⁴	System operating effectively, without evidence of a discharge.	YES NO N/A
Comments:					

Farm Site Review (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
MANURE STORAGE (INCLUDES ALL STORAGE SYSTEMS USED FOR MANURE, WASTEWATER OR RUNOFF CONTAINMENT)					
4.01) What is the storage capacity of manure systems?	There is six months or greater manure storage or manure is transferred offsite.	There is less than six months storage; adequate land base is available for winter and summer applications.	There is minimal or no manure storage on site. Adequate land base is not available.	Manure Application Risk Index (MARI) shows adequate acres for winter spreading. Records on manure production and storage capacity provided. MAEAP manure storage review sheets or NRCS animal waste management calculations are completed for storages to determine volume. (See FAS 112S.)	YES NO N/A
LIQUID MANURE STORAGE SYSTEMS					
4.03) What design standards are utilized for liquid manure 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.	The 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 FAS 112S.	Storage design is unknown and conformance has not been determined or the system is not functioning properly.	Appropriate manure storage design and installation demonstrated. Completed MAEAP manure storage review sheets or as-built engineering standards available. (See FAS 112S) System analysis procedure (seepage meter) provides evidence storage meets conformance standards.	YES NO N/A

Comments:

Farm Site Review (continued)

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
LIQUID MANURE STORAGE SYSTEMS (CONTINUED)					
4.04) Are structures properly maintained?	Structure is properly maintained and in good condition. No damage to the liner or breaches are evident. No visible signs of issues with push-off ramps, load-out areas, pumps, piping, etc.	Structure appears to be in good condition.	Lining material integrity broken. Evidence of overflow. Coarse-textured soils, no clay liner. Evidence of extensive cracking, leaning, etc. Structure needs repair.	MAEAP manure storage review sheets completed. (See FAS 112S) Additional Criteria may be required for CNMP development.	YES NO N/A
4.05) Are areas adjacent to manure storage structures properly maintained?	Banks are mowed and inspected regularly for potential problems. No brush, trees or animal burrows present.	Banks are not mowed regularly. Woody plant material present.	Lack of maintenance around storage site and/or numerous areas in need of repair and/or burrows present.	MAEAP manure storage review sheets completed. (See FAS 112S)	YES NO N/A
4.06) Is clean water (i.e. roof and surface runoff) diverted away from the manure storage facility?	Clean water is diverted away from 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.	MAEAP manure storage review sheets completed. (See FAS 112S)	YES NO N/A
4.07) How is freeboard maintained and overflow prevented in storage structures?	Minimum freeboard is known and observed. <i>A minimum freeboard of twelve inches (Six 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.	YES NO N/A

Comments:

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Farm Site Review (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
SOLID-BEDDED MANURE SYSTEMS AND COMPOSTED MANURE SYSTEMS (CONTINUED)					
5.04) At the farmstead, what management practices are used to reduce odors and pests from outside temporary stacks or solid manure storage structures?	<i>Stockpiled manure is at least 50 feet away from property lines or 150 feet away from non-farm homes and 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 or 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 manure storage management demonstrated for odor and pest control.	YES NO N/A
5.05) 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. Leachate and rainfall/snowmelt runoff discharged into a designed system.	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 control.	YES NO N/A
5.06) At the farmstead, is runoff from solid manure storage structures directly discharging to surface water or groundwater?	<i>Provisions made to control and/or treat runoff from stored manure.</i> And/or 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).	YES NO N/A

Comments:

Farm Site Review (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
OUTSIDE LIVESTOCK LOT MANAGEMENT (CONTINUED)					
6.04) How often is manure scraped and removed from livestock lot(s)?	<i>Manure is scraped and removed periodically from livestock lot(s) or other heavy use areas.</i>		Manure is seldom scraped and removed from lot and feeding and watering areas.	Appropriate manure management in livestock lot(s).	YES NO N/A
6.05) What type of floor or base does the livestock lot(s) have?	Properly maintained concrete, compacted asphalt, or other equivalent material.	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).	YES NO N/A
PASTURE MANAGEMENT					
7.01) Are there current soil tests on the pastures?	<i>All fields are sampled and tested on a regular basis</i> , at least every one to four years, depending on crops being grown and the cropping system.	Most fields are sampled and tested every one to four years. Producer plans to bring all field soil tests up-to-date within the next three years. (See also 10.01)	Fields have not been tested within the past four years.	Field names or map. Acres in the cropped portions of the field. Up-to-date soil test reports or schedule to bring all tests up-to-date. If pursuing a CNMP, soil samples should be taken every three years or more frequently.	YES NO N/A
7.02) What is the condition of pasture vegetation?	Pasture is well-managed with all areas vegetated. <i>Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface and groundwater.</i> Or no contaminated runoff is noted.	Pasture is well-managed and vegetated except in feeding and watering areas, which are scraped. <i>Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface and groundwater.</i> Or, no contaminated runoff is noted.	Pasture is overgrazed with bare spots. Erosion may be present. Runoff from pastures is carrying sediment and nutrients to surface waters⁴ or neighboring property.	No direct discharge from pasture(s).	YES NO N/A

Comments:

Farm Site Review (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
PASTURE MANAGEMENT (CONTINUED)					
7.03) How is the pasture managed to protect surface water?	<i>Livestock are excluded from actual contact with streams or watercourses except for controlled crossings and accesses.</i> Flash grazing may be implemented to control vegetation between fenced-in areas.	Herd density in the pasture is such that the stream bank remains vegetated with no eroded areas. Animals are not allowed to congregate under trees close to the waterway causing bare areas. And/or the practices of flash grazing is being implemented to control vegetation between fenced-in areas.	Runoff results in direct discharge to surface waters . ⁴ Livestock have free access to streams or watercourses, causing erosion.	Pasture managed to protect surface water from erosion and contamination demonstrated. Refer to <i>Prescribed Grazing 528 (USDA-NRCS-MI eFOTG)</i> or <i>Acceptable Practices for Managing Livestock along Lakes, Streams and Wetlands (E-3066, MSUE, 2008)</i> for more information.	YES NO N/A
7.05) What is being done to reduce manure concentration around watering tanks/feeders in pasture areas?	Water tank/feeding areas are rotated to different areas of pasture. Or, watering/ feeding areas are permanent, but manure is removed frequently to prevent concentration of nutrients. <i>Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface water and groundwater.</i>	Watering/feeding areas are permanent, but manure is removed at least annually to prevent concentration of nutrients. <i>Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface water and groundwater.</i>	Watering/feeding areas are permanent with infrequent or no manure removal. There is evidence of direct discharge to surface water ⁴ or ponding in low areas.	Proper manure management around water and feed demonstrated.	YES NO N/A
GENERAL SILAGE STORAGE					
8.01) 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 evident.	Appropriate silage leachate management demonstrated.	YES NO N/A
8.03) Are silage leachate and contaminated 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 direct discharge to surface water or groundwater . ⁴	Appropriate silage leachate management demonstrated.	YES NO N/A

Farm Site Review (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
GENERAL SILAGE STORAGE (CONTINUED)					
8.05) Does an emergency plan exist for times when leachate production exceeds current management controls?	An up-to-date written plan is available and is reviewed with all applicable 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.	YES NO N/A
8.08) 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 which is reviewed with all applicable 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. ⁴	An up-to-date emergency action plan.	YES NO N/A
BUNKER SILOS					
8.09) What type of floor does the silage storage have?	Concrete, compacted asphalt or equivalent material. No excessive 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, sand clay, sandy clay loam and silty clay).	Earthen floor has permeable soils. Or, concrete, asphalt or lined surface contains many cracks.	A maintained impervious surface or fine-textured earthen floor.	YES NO N/A
UPRIGHT SILOS					
8.13) 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 according to nutrient management plan.		Leachate is not collected and/or directly discharges to surface water. ⁴	Appropriate silage management demonstrated.	YES NO N/A
SILAGE BAG MANAGEMENT (CONTINUED)					
8.17) Is there a mechanism for collecting or treating or utilizing accumulated leachate?	Yes, leachate is collected and does not pond or reach surface water.		No. Leachate runs from bags to surface water. ⁴	Appropriate silage management demonstrated.	YES NO N/A

Comments:

Manure Spreading Plan

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
10.01) How often are fields tested for nutrient levels (P, K, Ca, Mg) and pH?	<i>All fields are sampled and tested on a regular basis</i> , at least every one to four years, depending on crops being grown and the cropping system.	Most fields are sampled and tested every one to four years. Manure is not applied to fields without a current soil test. Producer plans to bring all field soil tests up-to-date.	Fields have not been tested within the past four years.	Field names or map. Acres in the cropped portions of the field. Up-to-date soil test reports or schedule to bring all tests up-to-date. On farms pursuing a CNMP, soil samples must be taken every three years or more frequently.	YES NO N/A
10.02) Do soil sampling procedures adequately represent field conditions?	One composite sample is taken from uniform field areas of 15 to 20 acres or from uniform management areas on grid or zone sampling procedures.	One composite sample is taken from uniform field areas of 20 to 40 acres.	One composite sample is taken from areas of greater than 40 acres.	Predominant soil types/soil maps. Cropping histories. Proper soil sampling procedure.	YES NO N/A
10.03) How is the nutrient content of manure determined?	<i>Laboratory analysis for percent dry matter (solids), ammonium, and total N, P and K.</i>	Book values or standard nutrient content values used.	Manure nutrient content is unknown or not considered.	All manure analyses or book values on file. Multiple manure samples collected over one to two year period provide evidence of manure nutrient values.	YES NO N/A
10.04) How are desired application rates achieved?	Manure analysis (book value, manure test, or mass balance) and <i>field application rates are known.</i>		Application rate is not known.	Rate of manure applied known for all spreaders. Records indicate date of calibration.	YES NO N/A
10.05) How is the soil's ability to hold water and nutrients considered when calibrating for manure application?	Rates are at or below a level that manure does not run off or escape via tile drains. Tile outlets inspected after application. <i>Manure is prevented from reaching the tile lines.</i>		Manure application rates may be above the soil's ability to hold the water and nutrients. Manure reaches the tile lines and/or directly discharges to surface water. ⁴	No evidence of runoff or tile discharge. Tile lines monitored before and after manure application.	YES NO N/A

Comments:

Manure Spreading Plan (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
10.06) How are fertilizer application rates determined?	<i>Consistent with Michigan State University recommendations</i> and manure nutrients are credited. When MSU recommendations are not available other land grant university recommendations developed for the region may be used.	Fertilizer rates are based on soil testing lab recommendations but not consistent with MSU or other land grant university recommendations.	Fertilizer is not based on soil testing.	Applications consistent with MSU recommendations (MSU soil test printout or calculated MSU or other land grant university recommendations on field). When MSU recommendations are not available, other land-grant university recommendations developed for the region may be used.	YES NO N/A
10.07) 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. Complete manure application records will be kept immediately and will be available for review at the time of re-verification.	Minimal or no records maintained.	Additional nutrient management records that are needed. <ul style="list-style-type: none"> • Date(s) of manure application and incorporation when applicable. • Rate of manure application. • Weather conditions during application of manure (e.g., sunny, 70 degrees F). • Field conditions during application of manure (wet, dry, frozen, etc.) • Manure/wastewater quantities produced and nutrient analysis results. • Records of rental or other agreements for application of manure/wastewater on land not owned by the producer. • Record of manure/wastewater sold or given away to other landowners. 	YES NO N/A

Comments:

Manure Spreading Plan (continued)

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
10.08) Are weather forecasts monitored when making decisions about field applications of manure?	Weather forecasts are monitored before field application decisions. Manure applications are delayed if excessive precipitation is predicted. Manure is not applied if greater than or equal to 70% probability of more than 0.5 inches of precipitation is forecasted within the next 24 hours.	The weather forecasts are monitored but manure applications are based on when the storage is full or timing is convenient. Application may be made when excessive precipitation is predicted	The weather forecasts are not monitored. Manure applications made regardless of weather forecasts.	Producer has a procedure in place to monitor weather forecasts prior to making decisions about field application(s) of manure. Manure is not applied when excessive precipitation is predicted.	YES NO N/A
10.09) How are manure nitrogen (N) application rates managed?	<i>Manure nitrogen rates do not exceed requirements of the crop</i> and are credited toward fertilizer needs. Pre-sidedress nitrate test (PSNT) may be part of the program.	Manure nitrogen credits are considered but not to their full extent.	Commercial nitrogen is not reduced to account for manure nitrogen credits.	Manure rates do not exceed crop N needs, consistent with GAAMPs.	YES NO N/A
10.10) How are manure phosphorus (P) application rates managed?	<i>High testing fields (>150 ppm Bray P1) do not receive manure, and fields between 75 and 150 ppm P receive no more than four years, crop P205 removal if one-year application, is impractical.</i>	High testing fields (>150 ppm Bray P1) removed from spreading plan, but crop removal rates are not followed.	Manure application rates are not based on soil tests and/or crop removal rates.	Manure rates do not exceed crop P needs. If developing a CNMP, refer to USDA-NRCS 590 Standard.	YES NO N/A
10.11) Are odor reduction practices utilized when manure is land applied?	<i>Manure is incorporated within 48 hours or injected into the soil.</i>	If manure is not incorporated within 48 hours: <i>Conservation practices</i> (residue management, cover crops, perennial crops, etc.) <i>are used to protect against runoff and erosion losses to surface waters</i> or fields are snow covered or frozen preventing incorporation or injection.	All manures are surface applied and may not be incorporated until field is covered or until spring tillage.	Manure application records. Incorporation exceptions include: pastures or forage crops, or fields where crop residues are retained for erosion control or records show fields were snow covered or frozen preventing incorporation or injection.	YES NO N/A

Comments:

Conservation Practices for Fields Used for Manure Application (continued)

RISK QUESTION	Low Risk – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	High Risk - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
11.03) How are fields selected for spreading on frozen and snow-covered ground?	No applications on frozen or snow covered ground without injection or incorporation.	Manure Application Risks Index (MARI) has been completed for each field receiving manure on frozen or snow covered ground. Frozen or snow covered fields receiving manure have met MARI criteria for either Very Low or Low rating <i>and no liquid manure is applied on slopes greater than 3%, and no solid manure is applied to slopes over 6%.</i>	Applications are made to fields where runoff to water resources may occur.	MARI completed for each field receiving winter manure application, or spreading plan does not include winter spreading.	YES NO N/A
11.04) Is soil erosion under control on the farm fields?	Soil erosion losses are within tolerances as documented by the Revised Universal Soil Loss Equation (RUSLE2) and the Wind Erosion Prediction System (WEPS). Minimal evidence of erosion and no evidence of concentrated water flows. Cover crop may be in place.	RUSLE2 and WEPS are run on fields that are not: In pasture or hay ground, or no-till planting systems. Receiving fall tillage, with >30% residue on less than 12% slopes. Receiving more than one pass fall tillage that leaves fields rough with >40% residue and less than 8% slopes. And regardless of fall tillage, spring tillage leaves > 20% residue. And for all of the above there is no evidence of sheet, rill or gully erosion.	Excessive soil erosion is occurring on the farm.	RUSLE2 and WEPS calculations completed and on file.	YES NO N/A

Comments:

Conservation Practices for Fields Used for Manure Application (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
11.05) How is manure generally applied to fields?	<i>Manure is incorporated within 48 hours or injected into the soil, and/or conservation practices (residue management, cover crops, perennial crops, etc.) are used to protect against runoff and erosion losses to surface waters.</i>	Manure is generally surface-applied, and conservation practices are employed to reduce the risk of runoff.	Manure is applied in a manner that results in ponding, soil erosion losses, or manure runoff to adjacent property, drainage ditches or discharges directly to surface water. ⁴	Manure application records.	YES NO N/A
11.06) How are streams, wetlands, farm ditches and other water bodies protected from manure runoff?	<i>Manure is incorporated within 48 hours or injected. Or, surface applications are not done within 150 feet of surface water. Or, filter strips, riparian buffer strips, and other conservation practices are maintained between fields and surface waters on the farm and around surface water inlets.</i>	Conservation practices are maintained on some fields.	Manure is applied within 150 feet of surface waters and not incorporated without conservation practices. And/or, manure occasionally reaches neighbor's property.	Field maps with setbacks and conservation practices identified. Records of manure incorporation.	YES NO N/A
11.07) How are field tiles managed to prevent manure discharge to surface water?	<i>Liquid manure is prevented from reaching tile lines.</i> Management practices are in place to prevent runoff to surface inlets. Tile line outlets are monitored.		Tile outlets are not monitored for manure discharge.	Tiled fields identified on map. Record of tile flow before and after application (flow rate, color and odor). It is recommended tile outlets are marked where possible using either physical markers (stakes or flags) or GPS.	YES NO N/A

Comments:

Conservation Practices for Fields Used for Manure Application (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
MANURE PIPELINE, HOSE AND IRRIGATION SYSTEM MANAGEMENT (CONTINUED)					
11.12) When disassembled or moved, how is the residual manure in the system handled?	An air-driven device is used, or system is flushed with water, or other means are employed to properly remove manure from the system prior to disassembly.	Residual manure is drained and collected for land application or returned to storage.	System is disassembled with manure allowed to dump at low points.	Satisfactory explanation of hose disassembly provided by owner	YES NO N/A
11.13) Is care taken to ensure that irrigated manure does not flow into subsurface drains?	Field conditions are monitored before, during and after irrigation, and liquid manure is prevented from reaching tile lines. Appropriate measures are taken to avoid surface water discharges.		No care is taken to monitor field conditions, tile drains, etc., when irrigating liquid manure. Direct discharge to surface water⁴	No evidence of manure flow into surface drains.	YES NO N/A
11.14) If there are instances where diluted wastewater (\leq 1 percent solids) is applied to fields testing over 150 ppm P soil test, can the farmer document appropriate conditions for application?	<ul style="list-style-type: none"> - <i>Growing plants in the application area.</i> - <i>Wastewater application rate supplies less than 75% P crop removal.</i> - <i>Annual sampling of wastewater P content.</i> - <i>Soil P test levels decline over time.</i> - <i>No other P applied to field.</i> - <i>Tile drain fields monitored for manure flow.</i> 	Appropriate conditions are partially met.	Appropriate conditions for dilute wastewater application are not present.	Appropriate dilute wastewater management demonstrated. Refer to the Manure Management and Utilization GAAMPs. Note: The CNMP guidelines and NRCS Nutrient Management Practice standard (590) require the use of the Michigan Phosphorus Index (PI) when wastewater is applied to fields testing over 150 ppm P soil test. A PI of 17 or lower is needed.	YES NO N/A
Emergency Plan and Employee Training					
12.01) Is there an emergency plan in place in the event of a manure spill?	Up-to-date written plan available and understood by all appropriate farm employees. All uncontained spills or releases should be reported to the MDARD Agriculture Pollution Emergency Hotline: 1-800-405-0101 , or the MDEQ Pollution Emergency Alerting System: 1-800-292-4706	Incomplete or out-of-date action plan available.	No emergency action plan that deals with manure spills.	Up-to-date emergency farm plan, such as MSU Extension Bulletin E-2575 "Emergency Planning for the Farm".	YES NO N/A

Mortality Management and Veterinary Waste Disposal

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
13.01) 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, anaerobically digested or other methods as approved by the Director of MDARD. Mortality is removed 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. Records of mortality disposal, including burial, are kept on file and available for inspection.		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 7 days at 40 degrees F or more than 30 days at 0 degrees F before disposal of the carcass.⁵	Disposal of dead animal bodies is done according to the Bodies of Dead Animals Act (BODA), as amended in 2007. 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: http://www.maeap.org/get_verified/livestock_system .	YES NO N/A
MORTALITY COMPOSTING					
13.02) If mortality composting is used, what are the isolation distances for the composting site?	Static pile site is located at least 200 feet 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.		Site is located less than 200 feet 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.⁵	Isolation distances meet BODA requirements. The BODA supplement, available at the MAEAP.org website, has been completed and reviewed.	YES NO N/A
13.03) Is the site properly selected?	Site was properly selected for compost system regarding setbacks and composting method.		Site was NOT properly selected for compost system regarding setbacks and composting method.	Combining mortality from multiple sites may make the farm a large CAFO. See: http://msue.anr.msu.edu/news/can_combining_mortality_composting_from_two_separate_farms_constitute_a_caf	YES NO N/A

Comments:

Mortality Management and Veterinary Waste Disposal (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
MORTALITY COMPOSTING (CONTINUED)					
13.04) Is the compost system sized to handle the normal, expected mortality for the facility?	System capacity is adequate for the mortality at all times.	Capacity is normally adequate; however, system capacity is at times exceeded because of normal fluctuations in mortality rate.	System is sized inadequately to handle the volume of mortality for the operation.	Properly operating compost system confirmed by visual inspection of mortality compost.	YES NO N/A
13.05) Does the composting process follow standards identified in the Bodies of Dead Animals Act, (BODA), as amended in 2008?	Current BODA standards followed.		BODA standards not followed. ⁵	Practices are followed as described in the Michigan Animal Tissue Composting Operation Standard (MATCOS), available online at: http://www.michigan.gov/documents/mda/BODA_Composting_Operational_Standards_216592_7.pdf . The BODA supplement has been completed and reviewed.	YES NO N/A
13.06) Is compost actively aerated and temperature monitored at least weekly through three heat cycles?	Yes.		No. ⁵	Compost is properly managed.	YES NO N/A
13.07) Are records of compost management being kept according to BODA?	Yes.	Partial composting records have been kept. Complete composting records will be kept immediately and will be available for review at the time of reverification.	No. ⁵	See FAS 112S, Proper Disposal of Dead Animals Worksheet for the required compost records.	YES NO N/A

Comments:

Mortality Management and Veterinary Waste Disposal (continued)

RISK QUESTION	LOW RISK – 3 (RECOMMENDED)	MEDIUM RISK – 2 (POTENTIAL HAZARD)	HIGH RISK - 1 (SIGNIFICANT HAZARD)	RECORDS OR EVIDENCE FOR MAEAP VERIFICATION	MEETS CRITERIA
MORTALITY COMPOSTING (CONTINUED)					
13.08) How are animal health care 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 of on the farm.²	Presence of a sharps disposal container.	YES NO N/A

Odor Management

14.01) If the farm has 50 Animal Units 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*	Farm has expanded since 2000 and has 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.	Since 2000 the farm expanded 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 determined the site meets all of the Site Selection GAAMP Standards.	The farm has expanded since 2000 and does not meet all of the Site Selection GAAMPs Standards or the determination has not been made.	Conformance with Site Selection and Odor Control GAAMPs.	YES NO N/A
14.02) If the farm has less than 50 Animal Units, was the Michigan Right to Farm GAAMPs for Site Selection and Odor Control for New and Expanding Livestock Facilities (Site Selection GAAMPs) used to determine the site category for facilities constructed after June 1, 2000*	The farm proactively achieved verification under the Michigan Right to Farm Site Selection GAAMPs .	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 Site Selection GAAMPs 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	YES NO N/A

* 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.

Comments:

