**Section 502.840 Technical Evaluation**

All technical evaluations conducted under this Subpart H must address the minimum elements contained in this Section. Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in subsections (a) through (g) and operated in accordance with the additional measures and records required by Section 502.610 will fulfill this Subpart.

a) Information to be used in the design of the open manure storage structure including:

1) Minimum storage periods for rainy seasons;

2) Additional minimum capacity for chronic rainfalls;

3) Applicable technical standards that prohibit or otherwise limit land application on frozen, saturated, or snow-covered ground found in Section 502.630;

4) Planned emptying and dewatering schedules consistent with the CAFO's nutrient management plan;

5) Additional storage capacity for livestock waste intended to be transferred to another recipient at a later time; and

6) Any other factors that would affect the sizing of the structure.

b) The design of the open livestock waste storage structure as determined under 40 CFR 412.46(a)(1)(ii), incorporated by reference at 35 Ill. Adm. Code 501.200, or equivalent design software or procedures approved by the Agency.

BOARD NOTE: NRCS Animal Waste Management (AWM) software specified under 40 CFR 412.46(a)(1)(ii) is available at http://www.nrcs.usda.gov. Additional information may be obtained from the United States Department of Agriculture, Agricultural Research Service, 1400 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656.

c) All inputs used in the open livestock waste storage structure design, including:

1) actual climate data for the previous 30 years, consisting of historical average monthly precipitation and evaporation values;

2) the number and types of animals;

3) anticipated animal sizes or weights;

4) any added water and bedding;

5) any other process wastewater; and

6) the size and condition of outside areas exposed to rainfall and contributing runoff to the open livestock waste storage structure.

d) The planned minimum period of storage in months, including the factors for designing an open livestock waste storage structure described in subsection (a). Alternatively, the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's nutrient management plan.

e) Site-specific predicted design specifications, including:

1) dimensions of the storage facility;

2) daily manure and wastewater additions;

3) the size and characteristics of the land application areas; and

4) the total calculated storage period in months.

f) An evaluation of the adequacy of the designed manure storage structure under 40 CFR 412.46(a)(1)(vi), incorporated by reference at 35 Ill. Adm. Code 501.200.

1) The evaluation must include all inputs used in the simulation, including:

A) daily precipitation, temperature, and evaporation data for the previous 100 years;

B) user-specified soil profiles representative of the CAFO's land application areas;

C) planned crop rotations consistent with the CAFO's nutrient management plan; and

D) the final modeled result of no overflows from the designed open livestock waste storage structure.

2) For those CAFOs where 100 years of local weather data for the CAFO's location is not available, CAFOs may use a simulation with a confidence interval analysis conducted over a period of 100 years.

3) The adequacy of the designed manure storage structure may be evaluated using equivalent evaluation and simulation procedures the Agency approves.

BOARD NOTE: The Soil Plant Air Water (SPAW) Hydrology Tool specified at 40 CFR 412.46(a)(1)(vi) is available at https://www.nrcs.usda.gov/resources/tech-tools/spaw-version-602. Additional information may be obtained from the United States Department of Agriculture, Agricultural Research Service, 1400 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656.

g) The Agency may waive the requirement in subsection (f) for a site-specific evaluation of the designed livestock waste storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

h) The Agency may request additional information to support a request for livestock waste discharge limitations based on a site-specific open surface livestock waste storage structure.

(Source: Amended at 48 Ill. Reg. 3196, effective February 15, 2024)