



Policy Memorandum

To: **ALL PROJECT DEVELOPERS AND VERIFICATION BODIES**
Date: **SEPTEMBER 1, 2015**
Re: **RISK FACTORS FOR WATER QUALITY REGULATORY VIOLATIONS AT LIVESTOCK FACILITIES**

The intent of this memo is to alert livestock project stakeholders to recent regulatory actions relevant to livestock projects, and give specific guidance to project developers and verifiers as to how they should address and document such issues. This memo does not change the Reserve's existing approach to regulatory compliance under the Livestock Project Protocol. Recent regulatory actions in various states highlight water quality regulatory violations relevant to livestock offset projects. These regulatory actions also highlight key risk factors that may be useful in assessing if a project is likely to become subject to future regulatory actions. The Reserve is requesting project developers and verifiers to assess livestock projects for these risk factors, identify the presence of such factors in project documentation and communicate their impact on the project's regulatory compliance during the verification period.

Background

The Reserve's protocols, including the Livestock Project Protocol, include a requirement that the project must attest project activities do not cause material violations of applicable laws (e.g. air, water quality, safety, etc.). To satisfy this requirement, project developers must submit a signed Attestation of Regulatory Compliance form¹ prior to the commencement of verification activities each time the project is verified. Project developers are also required to disclose in writing to the verifier any and all instances of violations – material or otherwise – caused by the project or project activities. Further guidance on what may amount to a regulatory violation is included in each protocol and the Program Manual. For guidance on how to approach the issue of regulatory compliance in the California compliance offset system, please see the California Air Resources Board Offset Credit Regulatory Conformance and Invalidation Guidance.²

The Reserve has become aware of regulatory actions in several states in response to water quality regulatory violations related to livestock facilities. From these regulatory actions, the Reserve has distilled a number of key risk factors that stakeholders can use to identify whether their projects are at risk of contributing to water quality regulatory violations. Details of these key risk factors and the underlying regulatory actions are set out below.

Court Action

A federal court has ruled that livestock farms may be subject to the *Resource Conservation and Recovery Act (RCRA)* and consequently subject to civil action if their manure management practices contribute to water quality regulatory violations.³ The court found that the following practices can lead to enforcement under the RCRA:

¹ Attestation forms are available at <http://www.climateactionreserve.org/how/program/documents/>.

² As of September 1, 2015, the California Air Resources Board Offset Credit Regulatory Conformance and Invalidation Guidance could be downloaded from the ARB website here: <http://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm>.

³ A link to the judgment in this case can be downloaded here: http://www.centerforfoodsafety.org.php53-2.ord1-1.websitetestlink.com/files/320--order-granting-in-part-msj-11415_78926.pdf.

- **Land application of manure:** When manure is over-applied to agricultural fields – application that is inconsistent with the dairy’s Nutrient Management Plan and made without regard to the fertilization needs of their crops – such disposal will be subject to provisions of the RCRA;
- **Lagoons, ponds, pits, etc.:** If permeable lining of in-ground manure storage is used, even if such lining meets NRCS guideline standards, leaching of manure will be characterized as solid waste and thus subject to the RCRA;
- **Composting of manure:** Manure composted in an unlined composting area is considered to be knowingly abandoned and accumulating in potentially dangerous quantities, and thus considered a solid waste subject to the RCRA requirements.

In this case, such practices were ruled to have contributed to the build-up of levels of nitrates which amounted to “imminent and substantial endangerment to health or the environment”. This ruling now sets precedent for similar actions around the country. The *extent* to which the dairies’ actions contributed to the water quality problems is a matter of law that will be disputed at trial later this year.

EPA Administrative Order on Consent

In parallel to the above court action, the U.S. EPA entered into an Administrative Order on Consent (AOC) with the central dairy defendant, essentially requiring the dairy to take certain remedial actions and gather data. These actions include:

- 1) providing safe alternative drinking water supply to residents whose wells exceed maximum contaminant levels within a one mile radius;
- 2) taking specific actions to further control potential sources of nitrogen at the dairy;
- 3) establishing a network of monitoring wells to measure effectiveness of the nitrogen source reduction actions; and
- 4) ensuring effective nutrient management at the dairy to reduce the introduction of nitrate to underground drinking water.

Implications for the Reserve’s Program

The implications of both the court case and U.S. EPA AOC actions are potentially wide ranging. The U.S. EPA AOC action indicates dairies may be in violation of elements of the *Safe Drinking Water Act*, and further indicates a willingness on the part of the U.S. EPA to more actively regulate such activities. The court order demonstrates that dairies may be subject to the RCRA, depending on whether their manure management practices result in the disposal of large amounts of manure to the ground and hence groundwater. This question is also influenced by local soil conditions, relevant nutrient management plans, and agronomic fertilization needs. This case shows that given the large volumes of manure involved and long time frames that the manure management practices are in place, even relatively small leaching can build up over time and may likely be considered “solid waste” and therefore contributing to an “imminent and substantial endangerment to health or the environment”.

What Project Developers and Verifiers Must Do

The question as to whether or not a violation of either of these legal requirements has occurred (as well as when any such violation began or ended) is a matter of law for the regulators and/or courts to determine. However, project developers and verifiers are now required to consider the presence of key risk factors indicating potential water quality liability/violations, and where evidence of such risk factors are present, they must be assessed and documented. Project

developers shall assess the existence of the risk factors identified in this memo at their project sites and communicate the presence of them to their verifiers. Verifiers shall actively look for the existence of the risk factors identified in this memo at project sites and continue to use their professional judgment to determine whether any material regulatory violations have occurred. If the verifier is unable to assess the materiality of the violation, then the verifier shall consult with the Reserve. The presence of any of the risk factors identified in this memo should be considered when carrying out the assessment of regulatory compliance, and such consideration should be clearly discussed in the List of Findings and, when appropriate, the Verification Report. Where any doubt exists as to how to address the issue, the project developer and/or verifier shall consult with the Reserve.

Key Risk Factors

Key risk factors that may indicate possible violations include:

- the use of lagoon lining material that allows for any leaching of liquid manure, even at relatively small rates and even if such rates meet NRCS guidelines⁴;
- the siting of lagoons in areas where soil conditions are such that de-nitrification of large amounts of leached nitrogen is likely to be insufficient to prevent large-scale nutrient build-up over time;
- the use of unlined effluent ponds or the undertaking of alternative manure management options, such as composting, without the use of lining;
- the spreading of liquid manure on fields that is not done in accordance with a quantitative plan involving an assessment of crop needs and possibly soil de-nitrification capabilities⁵;
- any indications of water quality issues within the catchment area, involving large amounts of nitrogen or other nutrients/chemicals which could reasonably be suspected to have originated from dairy operations.⁶

The Reserve will continue to monitor these developments and work closely with key stakeholders to ensure environmental and social safeguards are adequately protected, and that projects that are in material compliance with regulations can continue to earn credits in the Reserve program.

⁴ For example, common practice in the design of many manure lagoons is the use of packed clay as a lining material, rather than an impermeable engineered fabric.

⁵ The inference being that such application may exceed uptake by plants and de-nitrification occurring in the soil.

⁶ For instance, the presence of monensin, which is a dairy feed additive.