

FORM DAI-EMP

EMISSION MITIGATION PLAN FOR DAIRY FARMS

Feed Mitigation Measures	<p>Dairy owners/operators must select at least <u>four</u> of the following feed mitigation measures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Feed according to National Research Council (NRC) guidelines. <input type="checkbox"/> Feed animals high moisture corn or steam-flaked corn and not feed animals dry rolled corn. <input type="checkbox"/> At least once every 14 days remove feed from the area where animals stand to eat feed. <input type="checkbox"/> At least once every 14 days remove spilled feed from the area where equipment travels to place feed in the feed bunk. <input type="checkbox"/> Remove uneaten wet feed from feed bunks within twenty-four hours of a rain event. <input type="checkbox"/> Feed or dispose of rations within 48 hours of grinding and mixing rations. <input type="checkbox"/> Store grain in a weatherproof storage structure from October through May.
Feed Mitigation Measures	<p>Dairy owners/operators must select at least <u>one</u> of the following feed mitigation measures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cover the horizontal surface of silage piles, except for the area where feed is being removed from the pile. <input type="checkbox"/> Collect leachate from the silage piles and send it to a waste treatment system such as a lagoon at least once every 24 hours. <input type="checkbox"/> Enclose silage in a bag and vent to a VOC control device with a combined VOC capture and VOC control efficiency of at least 80%. (Please note: Source testing per Section 7.2 of Rule 4570 will be required.) <input type="checkbox"/> Enclose silage in a weatherproof structure and vent to a VOC control device with a combined VOC capture and VOC control efficiency of at least 80%. (Please note: Source testing per Section 7.2 of Rule 4570 will be required.) <input type="checkbox"/> Eliminate silage from animal diet.
Milk Parlor Mitigation Measures	<p>Dairy owners/operators must select at least <u>one</u> of the following milk parlor mitigation measures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Flush or hose milk parlor immediately prior to, immediately after, or during each milking. <input type="checkbox"/> Enclose and vent the milk parlor to a VOC control device with an overall VOC capture and VOC control efficiency of at least 80% when animals are in the parlor.
Freestall Barn Mitigation Measures	<p>Dairy owners/operators with freestall barns must select at least <u>two</u> of the following freestall barn mitigation measures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vacuum or scrape freestall lanes immediately prior to, immediately after, or during each milking. <input type="checkbox"/> Inspect water pipes and troughs and repair leaks at least once every 14 days. <input type="checkbox"/> Use non-animal waste-based bedding and non-separated solids based bedding for at least 90% of the bedding material, by weight, for freestalls (e.g. rubber mats, almond shells, sand, or waterbeds). <input type="checkbox"/> Remove animal waste that is not dry from individual cow freestall beds at least once every 14 days. <input type="checkbox"/> Groom (rake, harrow, scrape, or grade) bedding in freestalls at least once every 14 days. <input type="checkbox"/> Use a dry animal waste handling system, such as scraping, instead of a liquid animal waste handling system, such as a flush system. <input type="checkbox"/> Have no animals in exercise pens, corrals, or drylots at any time. <input type="checkbox"/> Flush freestalls more frequently than the milking schedule. <input type="checkbox"/> Vacuum animal waste instead of flushing or scraping and apply animal waste directly to land either through injection or incorporation within 72 hours of removal from animal housing or vacuum truck. <p><input type="checkbox"/> Not Applicable – No freestall barns</p>

**Corral
Mitigation
Measures**

Dairy owners/operators with corrals must select at least six of the following mitigation measures for each corral where animals have been housed in the last 30 days:

Please note, only one of the following three measures will count towards the six required for this category.

- Clean animal waste from corrals at least 4 times per year with at least 60 days between cleaning.
- Clean corrals at least once between April and July and at least once between October and December.
- Clean concreted areas such that the depth of animal waste does not exceed 12 inches at any point or time, except for in-corral mounding.

Please note, only one of the following two measures will count towards the six required for this category.

- Maintain corrals to ensure drainage and prevent water from standing more than 48 hours after a storm.
- Maintain corrals and drylots so that there are not indentions in the surface where puddles may form and remain for more than 48 hours.

Please note, only one of the following three measures will count towards the six required for this category.

- Install no shade structures in the corrals.
- Install shade structures such that they are constructed with a semi-permeable roofing material.
- Install all shade structures uphill of any slope in the corral.

Please note, only one of the following two measures will count towards the six required for this category.

- Use lime or a similar absorbent material in the pens according to the manufacturer's recommendations to minimize moisture in the pens.
- Apply thymol to corral soil in accordance with the manufacturer's recommendation.

Please note, any of the following nine measures may be selected.

- Manage corrals such that the animal waste depth in the corral does not exceed 12 inches at any time or point, except for in-corral mounding.
- Knockdown fence line animal waste build-up prior to it exceeding a height of 12 inches at any time or point.
- Scrape or flush feed aprons in corrals at least once every seven 7 days.
- Slope the surface of the pens at least 3% where the available space for each animal is 400 square feet or less. Slope the surface of the pens at least 1.5% where the available space for each animal is more than 400 square feet per animal.
- Install floats on the troughs or use another method approved by the APCO, ARB, and EPA to ensure that the water in the troughs does not intentionally or unintentionally overflow or spill onto an earthen ground.
- Inspect water pipes and troughs and repair leaks at least once every 14 days.
- Groom (harrow, rake, or scrape) pens sufficiently to maintain a dry surface.

Not Applicable – No open corrals

<p>Solid Waste Mitigation Measures</p>	<p>Dairy owners/operators which handle solid animal waste or separated solids animal waste stored outside the animal housing must select at least <u>two</u> of the following solid or separated solids animal waste mitigation measures:</p> <p>Please note, only one of the following two measures will count towards the two required for this category.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Remove separated solids from the facility within 72 hours of separation. <input type="checkbox"/> Store no separated solids outside of anaerobic digesters or aerobic lagoons. <p>Please note, any of the following seven measures may be selected.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cover dry animal waste piles outside the pens with a weatherproof covering from October through May, except for times, not to exceed 24 hours per event, when wind events remove the covering. <input type="checkbox"/> Cover dry separated solids outside the pens with a weatherproof covering from October through May, except for times, not to exceed 24 hours per event, when wind events remove the covering. <input type="checkbox"/> Remove animal waste from the facility within 72 hours of removal from the pens or corrals. <input type="checkbox"/> Compost animal waste removed from pens with an aerated static pile vented to a VOC control device with an overall VOC capture and VOC control efficiency of at least 80%. <input type="checkbox"/> Store all removed animal waste in an enclosure vented to a VOC control device with an overall VOC capture and VOC control efficiency of at least 80%. <input type="checkbox"/> Send at least 51% of the animal waste removed from animal housing to a digester, with a VOC control device with an overall VOC capture and VOC control efficiency of at least 80%. <input type="checkbox"/> Not Applicable – No solid waste handled
<p>Liquid Waste Mitigation Measures</p>	<p>Dairy owners/operators which handle liquid animal waste must select at least <u>one</u> of the following liquid animal waste mitigation measures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use phototrophic lagoon as defined in Rule 496, Section 234. <input type="checkbox"/> Use an anaerobic lagoon as defined in Rule 496, Section 204. <input type="checkbox"/> Use an aerobic lagoon as defined in Rule 496, Section 202. <input type="checkbox"/> Use a mechanically aerated lagoon. <input type="checkbox"/> Manage the facility such that there are no lagoons at the facility. <input type="checkbox"/> Remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon. <input type="checkbox"/> Maintain lagoon pH between 6.5 and 7.5. <input type="checkbox"/> Maintain organic loading in the lagoon such that the total solids are less than 3.5 mg (dry weight)/mL, or total volatile solids are less than 3.5 mg/mL. <input type="checkbox"/> Use additional non-standard equipment or chemicals on the solid separator system, such as roller or screw presses or chemical coagulants and flocculants, that increase the percent of solid separation achieved by the separator and that is approved by the APCO, ARB, and EPA. <input type="checkbox"/> Cover the lagoon or storage pond and vent to a VOC control device with an overall VOC capture and VOC control efficiency of at least 80%. <input type="checkbox"/> Not Applicable – No liquid waste handled
<p>Land Application Mitigation Measures</p>	<p>Dairy owners/operators which land apply dry or liquid animal waste must select at least <u>two</u> of the following land applied dry or liquid animal waste mitigation measures:</p> <p>Please note, only one of the following two measures will count towards the two required for this category.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Allow liquid animal waste to stand in the fields no more than 24 hours after irrigation. <input type="checkbox"/> Apply no liquid animal waste. <p>Please note, only one of the following two measures will count towards the two required for this category.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Apply no solid animal waste with a moisture content of more than 50%. <input type="checkbox"/> Apply no solid animal waste. <p>Please note, any of the following three measures may be selected.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Land incorporate all solid animal waste within 72 hours of removal from animal housing. <input type="checkbox"/> Only apply solid or liquid animal waste that has been treated with an anaerobic or aerobic lagoon or digester system. <input type="checkbox"/> Not Applicable – Liquid or solid manure is not land applied