



SUMMARY-ADEM AFO/CAFO RULES

This is the author's summary of the more important points in the full chapter 335-6-7 ADEM rules that became effective 1APR99 and were modified 12DEC00.

CAFO, water quality, lagoons, waste management plans, state regulations, nutrient management.

SUMMARY – ADEM AFO/CAFO RULES

ADEM Field Operations Div – Water Quality Program

Chapter 335-6-7

-.01 PURPOSE -

(1) W/input from ag community, environmental community, interested gov't agencies, and other interested stock holders, to establish MINIMUM qualifications, standards, and procedures, technical standards, construction and operation requirements, BMP's and waste/wastewater storage.

(2) NRCS, AL Soil & Water Con Com, AU College of AG, AL Coop Ext, AL Dept Pub Health, AL Dept of Ag & Ind, have signed a Memorandum of Agreement (MOA) to cooperate with each other and ADEM to implement these CAFO rules. This is to avoid duplication of effort. AUCoAg and ACES will be leading the education effort.

(4) Buffer requirements intended to protect water quality, public health, and minimize odor **to the maximum extent practicable.**

-.02 DEFINITIONS –

60 definitions of items, the most interesting are;

(h) “Animal Feeding operation (AFO)” – lot or area where animals are gathered, fed, stabled for a total of 45 days in any 12 month period AND the area does not support vegetation or ground cover:

(i) “Animal Unit (AU)” – measure of size of any AFO figured as follows:

# of slaughter or feeder cattle	x	1.0
# of mature dairy cattle	x	1.4
# of hogs weighing 55 lbs or more	x	0.4
# of feeder pigs, 15 to 54 lbs. weight	x	0.25
# of nursery pigs, up to 14 lbs. wt	x	0.10
# of goats	x	0.16
# of emus	x	0.16
# of rabbits	x	0.16
# of sheep	x	0.1
# of horses	x	2.0
# of broiler, layers	x	.008

(o) “Certified Animal Waste Vendor (CAWV)” – person certified to accept LIABILITY and RESPONSIBILITY for AFO waste, obtain required continuing education, keep records, and effectively manage, handle, transport, **store**, and land apply wastes to “MEET OR EXCEED” NBCS Tech Standards and Guides; manage animal mortality to "MEET OR EXCEED" ADAI requirements.

(r) “Concentrated Animal Feeding Operation (CAFO)” – AFO with 1000 or more AU, further defined in section - .10 of this Rule. Any that have experienced a point source discharge after 1APR99.

(aa) "Intermittent Watercourse" - flows only certain period of year, indicated by dashed blue line on most recent USGS topographic map.

(ee) "Maximum Extent Practicable" (MEP) - means full implementation and regular maintenance of available technology to "MEET OR EXCEED" NRCS tech standards & guidelines to ensure protection of water quality + best available technology if necessary

(THIS IS MY OWN DEFINITION OF "MEET OR EXCEED" - to meet or exceed NRCS Technical Standards and Guidelines and provisions of both Federal and Alabama Water Pollution Control Acts. Anytime you see “MEET OR EXCEED” in the following summary; it is replacing this full statement).

(mm) "Perennial Non-Headwater Watercourse" - well defined channel flow, solid blue line on USGS topographic map and drains 3200 acres or more.

(rr) “Qualified Credentialed Professional (QCP)” – ADEM staff designated by ADEM Director, a PE (Professional Engineer) registered in Al, an NRCS representative, an NRCS

approved professional, or other qualified professional acceptable to ADEM, who has training, education, experience in design, implementation, and inspection of animal waste management practices and system plans, including land application, that enable the individual to make sound professional judgements regarding animal waste management practices;

(aaa) "25-Year, 24-Hour Rainfall Event" - maximum 24 hour rain event with probable recurrence interval of once in 25 years (National Weather Service, Tech Paper#40, Rainfall Frequency Atlas, as amended)

(ddd) "Waste Management System Plan (WMSP)" – comprehensive plan to manage animal waste that will "MEET OR EXCEED" NRCS Tech Standards and Guides and provisions of Clean Water Act, detailing management of entire facility including treatment, storage, handling, transport, disposal/utilization of wastes, wastewater, dead animals, nutrient management and land application. Prepared by authorized NRCS representative or PE registered in Alabama, or an ADEM approved QCP.

(ggg) "Waters of The State" - all waters of any river, stream, watercourse, pond, lake, coastal, groundwater or surface water, wholly or partially within the state (unless retained completely on private property).

-.03 APPLICABILITY -

(1) Applicable to construction, operation, maintenance, repair, and closure of cattle, swine, poultry, fowl, dairy, **stockyard, auction, or buyer yards**, farms, facilities, or operations or other AFO facilities designated by ADEM Director, and their associated waste management and land application systems located in Alabama.

-.04 GENERAL PROVISIONS –

(1) ALL AFOs to fully implement & regularly maintain comprehensive waste management system BMPs to maximum extent practicable to "MEET OR EXCEED". **All must have written nutrient management plan.**

(2) All AFO owners/operators shall regularly inspect their facility to ensure compliance with this Chapter.

-.06 NPDES COMPLIANCE -

(1) Approval of registration under this Chapter means NPDES permit coverage.

-. 07 REQUIREMENT TO APPLY FOR GENERAL OR INDIVIDUAL NPDES PERMIT -

(1) Any CAFO can be required to apply for NPDES individual permit.

(4) Initial or additional AFO construction that exceeds 1 acre, at an AFO not registered as a CAFO, requires NPDES construction permit before construction starts.

-.09 NOTICE OF REGISTRATION (NOR)–

(1)(c) includes latitude and longitude of front gate and each lagoon/storage pond.

(7) (b) 15 day prior WRITTEN NOTIFICATION of MAJOR MODIFICATION to ADEM for change in 1) ownership, 2) operational control, 3) increase in animal #'s to higher fee class, or 4) waste treatment, handling, or disposal.

(c) May have to notify of MINOR MODIFICATION for change in 1) land application sites, or 2) starting or stopping CAWV contract. Thirty (30) days to update WMSP for MINOR MODIFICATION.

-.10 Registration Requirements for CAFOs

(1) Construction or starting of CAFO w/o NOR after 1APR99 prohibited.

(2) CAFO operation beyond 1APR99 without Notice of Registration (NOR) is prohibited.

(3) Expansion or modification, or operation of CAFO w/denied NOR prohibited.

(4) CAFO is an AFO with MORE THAN the following number and type of animals!

		w/dischARGE after 1APR99
slaughter or feeder cattle	1,000	300
mature dairy cattle	700	200
hogs 55 lbs	2,500	750
feeder pigs 15 to 54 lbs	4,000	1,200
nursery pigs up to 14 lbs	10,000	3,000
goats	6,250	1,875
horses	500	150
sheep	10,000	3,000

turkeys	55,000	16,000
broilers, laying hens	12,5000	37,500
emus	6,250	1,875
rabbits	60,000	18,000
ducks	5,000	1,500
others	ADEM Director determined	

(d) CAFO is also any size AFO on-site designation as “significant contributor of pollution”

(e) CAFO is any active or INACTIVE AFO that has not been PROPERLY closed that HAS, OR IS experiencing a discharge by negligence or design

(f) CAFO is any size AFO whose liquid waste management system and land application plan is NOT FULLY IMPLEMENTED and regularly maintained to “MEET OR EXCEED”.

-.13 Schedule of Registration –

(1)(a) Existing facilities file NOR not later than 30SEP99

(b) (c) New/expanding facilities file NOR at least 30 prior construction and 45 days prior to feeding

(2) Probable reasonable operation to "MEET OR EXCEED" to be CERTIFIED by QCP

(a) Certification of new/expanding operation to be not later than 15 days prior to beginning feeding

(b) Existing CAFO w/existing WMSP prepared by QCP not later than 1NOV99

(d) Designated priority facilities NLT 30 days after written notice from ADEM Director

(h) Existing AFO on CWA 303(d) stream resulting from agricultural impacts NLT 1NOV01

(i) Existing AFO on CWA 305(b) stream with agricultural impacts NLT 1NOV02

(j) All other CAFOs by 1NOV03

(1) Facilities existing after 1APR99, with earthen storage or treatment facility for liquid waste constructed without DOCUMENTED technical assistance from QCP to "MEET OR EXCEED" to SUBMIT REQUIRED CERTIFICATION/VALUATION to continue operation or IMPLEMENT CLOSURE PLAN by 1NOV2000

-.14 RECORD KEEPING –

(3) With registration, designate individual(s) responsible for inspections and record keeping

(4) Record, describe and report spills to ADEM

(5) Keep CAFO facility inspections & maintenance records on site for 3 years

(13) AFOs maintain sufficient records to document status as “NOT CAFO” and as a facility that has; implemented BMPs that "MEET OR EXCEED", not discharged, and is not otherwise required to register.

-.16 ACCESS TO RECORDS, REPORTS OR INFORMATION -

(1) Allow ADEM representative to access and copy all records required, at reasonable times

-.17 ENTRY & INSPECTION OF FACILITIES -

(1) ADEM representatives allowed entry to buildings & facilities AT ALL REASONABLE TIMES to inspect facilities & equipment, review records, conduct monitoring & sampling

(2) BIOSECURITY TO BE OBSERVED !! registrant, with ADEM consent, to provide ACCEPTABLE ALTERNATE ACCESS THAT DOES NOT REQUIRE BIOSECURITY to meet with facility personnel, inspect/evaluate waste management systems, land application sites, record storage areas, and enter other areas deemed necessary by ADEM

-.18 CONTINUING EDUCATION & TRAINING REQUIREMENTS

(1) Owner/manager and on-site manager to show satisfactory completion of UP TO up to 16 HOURS of training: 1) general BMPs, 2) comprehensive waste/wastewater management, 3) land application, 4) nutrient budgeting, 5) dead animal disposal, 6) etc

Training evidence submitted w/NOR OR NLT 1 year after initial registration

ADEM to approve initial training requirements, appropriate curricula, course content, course length, any participant testing, evaluation of effectiveness/applicability of training, and total hours of training

(2) UP TO 8 HOURS Continuing Education training annually – submitted with annual NOR, all responsible employees must be trained

(3) Owner/operator has right to pay additive “Greenfield” fee ANNUALLY in lieu of submitting continuing Ed requirements

-20. PLANS, SPECIFICATIONS, AND TECHNICAL REQUIREMENTS

(1) NO AFO Animal Waste Management System can be constructed, modified, repaired or placed in operation after 1APR99 w/o design, construction, operation & maintenance plans & specifications that MEET OR EXCEED”. This must be CERTIFIED by QCP for a CAFO.

(3) all CAFO waste management activities to “MEET OR EXCEED” for the year practice is started (including water well siting & construction and incinerator and freezer siting & management for dead animal disposal)

(4) ADEM can require additional effective structural and non-structural measures, if in-place BMPs that "MEET OR EXCEED" do not reduce ODORS to maximum extent possible.

building and structure set backs apply ONLY to construction after 1APR99

(5) NEW AFO LIQUID SYSTEM buildings & lagoons/storage ponds for NEW AFOs to be 1320’ from existing human-occupied buildings, 660’ for existing AFO. (6) NEW AFO buildings/lagoons/ponds to be NOT LESS THAN 500’ from property lines

(5)(a) new AFO DRY WASTE buildings/structures for NEW AFOs to be 330’ from existing human-occupied buildings, (5)(c) 165’ for existing AFOs

(6) (a,c) new AFO DRY WASTE buildings/structures to be 165’ from property lines

(7) any new (DRY OR WET SYSTEM) confinement buildings or waste containment or treatment structures to be NLT 100’ from streams and wells

(8) Any NEW LIQUID WASTE containment structure BUILT AFTER 1DEC, 2000 to be NLT 500’ from off-site potable well, NLT 200’ from perennial non-headwater watercourse, PWS, ONRW, or OAW water, and in no case closer to the property line than 500’ (<1000 AU), 1320’ (1000-2499 AU), 2640’ (2500-3999 AU), or 5280’ (4000 or more AU).

(9) AFTER 1DEC 2000, new or additional well can not be placed nearer than 100’ from ANY animal waste confinement building or facility.

(18) subsurface investigation for earthen lagoon, holding pond, pit suitability and liner requirements **to be a component of system design** and be performed to a depth necessary to determine adequacy of site, = 2’ below planned bottom grade (in SELMA CHALK = 1’)

(20) BMP plan must include adequate documentation that sufficient land application area is available unless CAWV contracted or waste is given away "in good faith". CAFO WMSP must be CERTIFIED by QCP

(21) All AFOs to keep dry wastes under roof or effective cover at all times during production, handling/spillage, storage, treatment, transport, OR OTHER ACTIVITY prior to proper land application

(22) Maintain 12" freeboard in lagoon/storage pond at ALL TIMES

(24) AFTER 1DEC2000, new AFOs & CAFOs in N. AI to have minimum of 180 days of waste and/or wastewater storage volume. All N. AI AFOs & CAFOs to have 180 days storage NLT 1JAN03.

(24)(a) AFTER 1DEC2000, new AFOs & CAFOs in S. AI to have minimum of 120 days of waste and/or wastewater storage volume. All S. AI AFOs & CAFOs to have 120 days of storage NLT 1JAN03.

(25) AFTER 1DEC2000, NO MANURE STORAGE PITS OR PONDS TO BE BUILT WITHOUT WRITTEN ADEM APPROVAL.

-.21 GENERAL BEST MANAGEMENT AND HOUSEKEEPING PRACTICES

(1) Owner/operators of AFOs fully implement AND regularly maintain comprehensive waste management system BMPs

(1)(a) requires structural and non-structural practices to prevent/minimize discharge of pollutants (sediment, trash, garbage, debris, oil & grease, chemicals, etc.) to waters of State in construction stormwater runoff.

(1)(e) Spill Prevention, Control and Countermeasures for on-site fuel, chemical or pollutant storage tanks

(3) AFO owner/operator responsible for clean-up of OFF-SITE discharges

(4) AFO owner/operator post or make readily available a copy of emergency procedures for spills including notification list of state/federal agencies, local/downstream public water supply entities w/appropriate phone #'s, addresses, safety precautions, etc.

-.22 ALTERNATIVE OR INNOVATIVE TECHNOLOGY

(1) (a,b) can be used if approved by NRCS and other agencies and ADEM Director AND no point or non-point source pollution to waters of state will result

-.24 FACILITY CLOSURE

(1) for CAFO or registrant, closure plan for waste system storage/treatment structures(s) to be prepared by QCP & submitted NLT 30 days prior to close, must "MEET OR EXCEED" and scheduled closure NMT 180 days

(4) QCP to certify closure completion

-.25 DISCHARGE PROHIBITION & WASTE DISPOSAL REQUIREMENTS

(1)(a) NO DISCHARGE except in chronic, catastrophic rainfall (NLT 25YR24HR storm). When it occurs; 1) sample discharge, 2) land application and lagoon levels maintained prior to catastrophic rainfall, 3) maximum action possible taken to prevent, terminate, and mitigate impacts...DOCUMENT!

(2)(d) Maintain minimum 12' freeboard in all liquid storage/treatment structures

(2)(p) Facilities cannot expand in either size or numbers prior to updating approved WMSP and waste handling procedures/structures to "MEET OR EXCEED", including adequate land for expansion of land application

(2)(l) SPCC (SPILL PREVENTION, CONTROL & CONTAINMENT) procedures to be written and followed. Clean-up procedures to be covered in training plans, necessary equipment to be available to employees

-.26 LAND APPLICATION AND MANURE MANAGEMENT REQUIREMENTS

(1) ALL PROVISIONS of WMSP prepared by QCP and filed with NOR are ENFORCEABLE CONDITIONS of AFO/CAFO RULES

all land application sites must be identified in WMSP (unless handled by CAWV contract)

(2) All AFOs to ensure that land application follows approved WMSP and "MEETS OR EXCEEDS"

(2)(c) land application NLT 50' from streams, NLT 100' from non-potable wells, and NLT 200' from potable wells, ONRW or OAW waters

(2)(d) unless using a CAWV, AFO owner/operator is responsible to see that owner of offsite land application field, not controlled by the AFO, abides by AFO/CAFO land application rules

(2)(h) temporary or permanent stockpiling or storage of waste/manure near a water of the State during land application operations are to "MEET OR EXCEED" and prevent discharge to water of the State

(2)(i) dead animal disposal to "MEET OR EXCEED", approved by State Veterinarian and included in WMSP

(2)(k) no land application on soil frozen, snow - or ice-covered, during rainfall, or when "significant rainfall" is expected within 72 hours.

vegetation must be actively growing and able to use quantity and nutrient content of applied waste

(2)(l) apply waste to prevent it from entering drainage ditches/pipes and entering water of State, running on adjacent property w/o written permission of adjacent property owner

(2)(n) land apply near but not over property lines to prevent overland flow and significant aerial drift and at least 100' from nearest human-occupied building or public area

(2)(p) aerial or spray irrigation NLT 500', non-pumped or surface application or subsurface injection NLT 200', from nearest human-occupied building

(3) unless using a CAWV or waste is properly sold or given away in good faith to another person, records of all surface & subsurface waste applications, date, weight/volume, destination, acreage spread to be kept at facility

(4) unless NRCS nutrient values are used, waste/wastewater to be tested AT LEAST ANNUALLY for pH, Total Nitrogen, Ammonium Nitrogen, Total Phosphorus, Total Potassium, percent Solids, selected metals (and anything else per ADEM Director)

(5)(b) soil samples taken as often as necessary to protect water quality and "MEET OR EXCEED" NRCS guides (at least every three years)

(8) Annual Report w/NOR to include (for previous year); waste and soil analyses conducted, locations, volumes, nutrient application rates, method of land application, crops grown and procedures for crop storage/removal from land, documentation of any point/nonpoint spills and actions taken to correct

-.28 POLLUTION PREVENTION

(1) Pollution Prevention Plan required for a CAFO, considered to be met with WMSP properly designed, constructed, operated and maintained according to CAFO rules

copies of all documentation signed by a CAFO owner/operator and submitted to ADEM to be kept on site and serve as PPP

(2) PPP will include:

(a) written provisions for WEEKLY INSPECTION of all WMSP practices, structural controls, daily inspection/evaluations of each land application site during land application, when rain has fallen within 7 days since land application, SIGNED BY INSPECTOR

(b) written provision for ANNUAL INSPECTION by QCP of all WMSP facilities, structural controls and land application sites – signed by QCP, records to include date and findings and any actions taken, signed by QCP

(c) initial written documentation of inspection by PE registered in AL or QCP under PE supervision, certifying all new & existing embankments, dams, dikes, ditches or berms associated w/lagoons/storage ponds have been constructed in accordance with accepted engineering practices to “MEET OR EXCEED”

(d) written provision for inspections and certification AT LEAST ONCE EVERY 5 YEARS by AL PE that all structural components of WMSP have been maintained to “MEET OR EXCEED”...signed by PE

(e) written schedule and procedures for pumping out lagoon/storage pond must be on hand at facility

date log for weekly lagoon/storage pond level, inspections maintained & signed by person inspecting
owner to maintain 12” freeboard AT ALL TIMES, equipment to do so to be available when needed

(f) permanent marker in lagoon/storage pond to show volume levels for each required volume, including 25yr-24hr storm and 12” freeboard

(g) lagoon/storage pond liner, and fences or equal to prevent animal damage to liner, to be maintained, PE or QCP inspection within 3 days of liner damage, record all activity

(h) keep records, ensure that manure storage and land application do not cause discharge to water of the State, runoff of waste from land application site prohibited

(i) record amounts & dates waste given away/sold, name, address, and phone number of hauler/transporter, & provide nutrient analysis or NRCS approved averages AND info from CAFO rules on land application

CAFO owner/operators and registrants to develop, maintain, implement preventative maintenance for routine control facilities

-31 DISCHARGE NOTIFICATION

(1) **NO DISCHARGE ALLOWED!** discharges to waters of the state for ANY reason (even catastrophic rainfall events) must be reported **WITHIN 4 HOURS** after discovery **BUT IN CASE LATER THAN 24 HOURS**

(2) additionally, submit report within 5 days with:

(a) description and cause, flow and discharge estimate,

(b) period of discharge and steps taken to stop, reduce, prevent recurrence,

(c) size of rainfall event,

(d) **SAMPLE** and **ANALYZE** all discharges and submit following analyses within 5 days

(3) sample analysis to include: Fecal Coliform, 5 day BOD, Total Suspended Solids, Ammonium Nitrogen, Total Phosphorus, any Pollutant believed by owner to be present, selected metals (and anything else per ADEM Director)

(5) have sampling equipment and containers readily available **ON SITE**

(6) document why if no sample, **THEN SAMPLE ASAP**

-32 OTHER REQUIREMENTS

(1) AFO owner/operator responsible to properly operate and maintain all facilities and **HAVE ENOUGH TRAINED** (both initial and annual) **PEOPLE AVAILABLE** to do so

(2) any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, record, or method required to be maintained shall, upon conviction, be punished by fines and/or imprisonment as provided by state and Federal law

(3) **BYPASS PROHIBITED** (you cannot just “turn out” or let loose waste)

(4) **UPSET** discharge must be reported and proper operation and response documented

(6) discharge of pollutants to groundwater prohibited

(7) CAFO registration meets Coastal Zone Management if ACAMP is followed. Coastal Use Permits and certification still needed

CAFO may have to apply for INDIVIDUAL NPDES PERMIT, take emergency abatement action, or modify registration

(9) Compliance with Water Quality Standards-AFO owner/operator or registrant may be required to apply for individual permit IF DISCHARGES CONTRIBUTE TO A VIOLATION OF STATE WATER QUALITY STANDARDS or stream classification, take emergency abatement action, or modify registration

(10) Animal Mortality Emergency Response – immediately call State Veterinarian and follow AL Dep of AG & Ind requirements

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