United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

APHIS 91-45-011

Bovine Tuberculosis Eradication

Uniform Methods and Rules, Effective January 1, 2005

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA' s TARGET Center at (202) 720-2600 (voice and TDD).

To files a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326 W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Issued December 2004

Contents

	Page
Introduction	**1**
Part I–Definitions	**2**
Accredited herd	2
Accredited Veterinarian	2
Affected herd	2
Anniversary date	2
Approved feedlot/approved pens	2
Approved laboratory	3
Approved livestock facility	3
Approved slaughtering establishment	3
Area Veterinarian in Charge (AVIC)	3
Auction	3
Bison	3
Bovine interferon gamma assay	3
Bovine tuberculosis	3
Cattle	3
Caudal fold tuberculin (CFT) test	3
Certificate	3
Cervical tuberculin (CT) test	4
Commission firm	4
Commission sales	4
Commuter herd	4
Comparative cervical tuberculin (CCT) test	4
Dealer	4
Designated Accredited Veterinarian	4
Designated Tuberculosis Epidemiologist (DTE)	4
Direct shipment to slaughter	5
Epidemiology	5
Eradication	5
Exotic hoofstock	5
Exposed animals	5
Feedlot	5
Geographic separation	5
Herd	5
Herd depopulation	6
Herd of origin	6
Herd test	6
Individual herd plan	6
Listed establishment	6
Livestock	6
Memorandum of Understanding (MOU)	6
Natural additions	6
Negative animals	6
No gross lesion (NGL)	7
Official eartag	7
Official identification/officially identified	7
Official tuberculosis test	7

Parallel testing 7
Permit 7
Premises identification number 7
Program herd 7
Reactor 7
Responder 7
Routine testing 8
Split status State 8
State or zone status 8
Suspect 8
Test eligible cattle or bison (Herd Accreditation/Reaccreditation Test) 8
Test eligible cattle or bison (for movement) 8
Test eligible cattle or bison (Program Herds) 8
Tuberculin 9
Zone 9

Part II – General Procedures (Minimum Requirements) 10
A. Authority to implement and administer tuberculosis program control and eradication measures 10
B. Personnel authorized to apply official tuberculosis tests 10
C. Approved laboratories 10
D. Presumptive diagnostic test 10
E. Supplemental diagnostic tests and procedures 10
F. Primary diagnostic test 10
G. Tuberculin test interpretation 11
H. Cleaning and disinfection of premises, conveyances, and materials 11
I. Determination of the State-of-origin of infected animals 11
J. Identification 11
K. Dealer Registration and Recordkeeping 11

Part III–Standard Procedures (Minimum Requirements) 13
A. Classification of cattle and bison tested 13
B. Reporting of tests 13
C. Disposition of tuberculin-responding cattle and bison 14
D. Interstate or interzone movement requirements for tuberculosis (cattle or bison not known to be affected with or exposed to tuberculosis) 14
E. Procedures in tuberculosis-affected herds 16
F. Procedures in tuberculosis-affected feedlots 16
G. International movement requirements for tuberculosis (cattle or bison not known to be affected with or exposed to tuberculosis) 16
H. Identification of reactor cattle and bison 16
I. Identification of exposed cattle, bison, and other livestock 17
J. Quarantine procedures 17
K. Retest schedules for high-risk herds 18
L. Surveillance around an *M. bovis* affected herd where wildlife are known to be affected 19

Part IV–Accredited Herd Plan for Cattle or Bison 20
A. Animals to be tested 20
B. Accreditation and reaccreditation 20
C. Additions 21
D. Artificial insemination 22

Part V–State or Zone Status 23
A. General provisions 23
B. Surveillance 24
C. Annual and/or semiannual reporting 25
D. Specific State or zone status plans 25

Appendix A 27
Tuberculosis Test Requirements for Various Classes of Cattle and Bison Not Known to be Affected with or Exposed to Tuberculosis and from Non-Accredited Herds, Other than Commuter Herds, Being Moved Interstate or Interzone for Breeding or Feeding Purposes

Appendix B 28
Tuberculosis Test Requirements for Various Classes of Cattle and Bison from Accredited Herds Being Moved Interstate or Interzone for Breeding or Feeding Purposes

Appendix C 29
Performance Standards for Caudal Fold Tuberculin Testing

Summary of Changes

July 20, 2005
Page 28, Appendix C: Corrected explanatory notes below table.

January 10, 2006
Page 24, Part V, D, 1, c: Amended requirements for downgrading from Accredited-free to Modified Accredited Advanced.

March 14, 2006
Page 5, Definitions: Revised definition of "herd"

Page 6, Definitions: Revised definition of "herd test"

Page 16, Part III, F: Amended instructions for handling tuberculosis-affected feedlots

Page 25, Part V, B, 2, d: Added requirement for completing investigations of slaughter cases within 90 days.

Introduction

These Uniform Methods and Rules (UM&R) are the minimum standards adopted and approved by the Deputy Administrator, Veterinary Services (VS), Animal and Plant Health Inspection Service (APHIS), on January 20, 2005. They were established for the maintenance of tuberculosis-free accredited herds of cattle and bison and the maintenance of State or zone status in the U.S. Department of Agriculture's (USDA) tuberculosis eradication program.

These minimum standards do not preclude the adoption of more stringent standards by any State or zone.

Part I – Definitions

Accredited herd

A herd that has passed at least two consecutive official tuberculosis tests of all eligible animals conducted at 9-15 month intervals, has no evidence of, or exposure potential to, bovine tuberculosis and meets the standards of these Uniform Methods and Rules (UM&R). Accredited herd status is maintained through annual herd testing in Accreditation Preparatory and Modified Accredited States or zones, and through biennial herd testing in Modified Accredited Advanced and Accredited-free States or zones during a period of 3 months prior to the anniversary date to 3 months following the anniversary date. However, if the reaccreditation test is conducted following the anniversary date, the Accredited status of the herd will be suspended until the reaccreditation test is completed. The testing interval for maintaining Accredited herd status in States having more than one status [split status zone(s)] shall be the same for the whole State and shall be that of the lowest status of any zone within the State. The Designated Tuberculosis Epidemiologist (DTE) and Regional Tuberculosis Epidemiologist must certify in writing to the Accredited status of herds in States or zones with wildlife reservoirs of tuberculosis and in States or zones with lower than Modified Accredited Advanced status.

Accredited Veterinarian

A veterinarian approved by the Administrator of APHIS, to perform functions required by cooperative State-Federal animal disease control and eradication programs.

Affected herd

A herd of livestock in which there is strong and substantial evidence that *Mycobacterium bovis* exists. This evidence should include, but is not limited to, any of the following: histopathology, polymerase chain reaction (PCR) assay, bacterial isolation or detection, testing data, or epidemiologic evidence such as contact with known sources of infection.

Anniversary date

The test observation date (month/day) of the second consecutive test in cattle and/or bison with no evidence of tuberculosis disclosed (that is, the test on which the herd was recognized as accredited, or the accrediting test). Following the initial accreditation of a herd, the herd must be tested annually if located in an Accreditation Preparatory or Modified Accredited State or zone, or biennially if located in a Modified Accredited Advanced or Accredited-free State or zone to maintain Accredited status. The testing interval for reaccrediting herds in States having more than one status [split status zone(s)] will be the same for the whole State and will be that of the lowest status of any zone within the State. Reaccreditation tests must be conducted between 9 and 15 months from the anniversary date (month/day) established on the accrediting test in herds located in Accreditation Preparatory or Modified Accredited States or zones. Reaccreditation tests must be conducted between 21 and 27 months from the anniversary date (month/day) established on the accrediting test in herds located in Modified Accredited Advanced or Accredited Free States or zones.

Approved feedlot/ approved pens

A confined area, either the entire feedlot or designated pens within the feedlot, approved jointly by the Chief State Animal Health Official and the APHIS Administrator for feeding restricted cattle or bison. Any provisions for grazing or pasturing restricted cattle or bison entering an approved feedlot/approved pens must be formalized in a Memorandum of Understanding (MOU) by the Chief State Animal Health Official and the Administrator. The MOU must include adequate isolation and fencing requirements as recommended by the DTE and the Regional Tuberculosis Epidemiologist. An animal leaving the confined area must be destined to either another approved feedlot or approved pen, or to an approved

slaughtering establishment. The operator of the feedlot must follow approved procedures to account for animals entering or leaving the confined area. The Chief State Animal Health Official and the Area Veterinarian in Charge (AVIC) of each State must provide the Veterinary Services (VS) National Center for Animal Health Programs a list of approved feedlots and/or approved pens within his/her State. The VS staff must be notified of any additions to the list or any deletions from the list.

Approved laboratory — A State, Federal, or National Animal Health Laboratory Network (NAHLN) veterinary laboratory specifically recognized by APHIS to conduct official tuberculosis program diagnostic testing. The primary laboratory for tuberculosis histopathological examination and bacteriological culture shall be the National Veterinary Services Laboratories (NVSL), Ames, Iowa. Food Safety and Inspection Service (FSIS) field service laboratories may be utilized for histopathology.

Approved livestock facility — A stockyard, livestock market, buying station, concentration point, or any other premises under State or Federal veterinary supervision where livestock are assembled and that has been approved under Title 9, *Code of Federal Regulations* (9 CFR), Section 71.20.

Approved slaughtering establishment — A slaughtering establishment operating under the provisions of the Federal Meat Inspection Act (21 U.S.C. 601 et seq.), or a State-inspected slaughtering establishment that has inspection by a State inspector at the time of slaughter.

Area Veterinarian in Charge (AVIC) — The veterinary official of APHIS, VS who is assigned by the VS Deputy Administrator to supervise and perform the official animal health activities of APHIS in the State concerned.

Auction — A public sale of livestock to the highest bidder.

Bison — Bovids (genus *Bison*) commonly referred to as American buffalo or buffalo.

Bovine interferon gamma assay — An official supplemental diagnostic test that, if approved by the Chief State Animal Health Official and the AVIC within the State, may be used in cattle herds under the direction of the DTE and with the concurrence of the Regional Tuberculosis Epidemiologist. The bovine interferon gamma assay should only be conducted on blood samples collected between 3 and 30 days after injection of bovine tuberculin for the caudal fold tuberculin (CFT) test.

Bovine tuberculosis — A chronic, granulomatous disease caused primarily by *Mycobacterium bovis*, a very slow growing, acid-fast, Gram-positive, rod to filamentous shaped bacteria. *M. bovis* has a very broad host range and can infect all warm-blooded vertebrates, including humans.

Cattle — All domestic bovine (genus *Bos*) animals of all ages.

Caudal fold tuberculin (CFT) test — The intradermal injection of 0.1ml of USDA bovine purified protein derivative (PPD) tuberculin (1 mg/ml PPD) into either side of the caudal fold with reading by visual observation and palpation 72 hours (plus or minus 6 hours) following injection.

Certificate — An official document issued by an APHIS representative, a State representative, or an Accredited Veterinarian at the point of origin of a shipment of livestock to be moved interstate that includes the official identification of each animal to be moved; the number, breed, sex, and approximate age of the animals covered by the document; the purpose for which the animals are to be moved; the date and place

of issuance; the points of origin and destination; the consignor and the consignee; and which states that the animal or animals identified on the certificate meet the requirements for interstate movement.

Cervical tuberculin (CT) test

The intradermal injection of 0.1 ml of USDA bovine cervical PPD tuberculin (2 mg/ml PPD) in the cervical region with reading by visual observation and palpation 72 hours (plus or minus 6 hours) following injection.

Commission firm

A person, partnership, or corporation that buys and sells livestock as a third party and reports details of the transaction to the seller, the buyer, or both. This includes any such person or group regardless of whether a fee is charged for the services.

Commission sales

Sales that are conducted by a third party who reports details of the transactions to the seller, the buyer, or both.

Commuter herd

A herd that has been recognized and approved to have its animals moved interstate or interzone, without change of ownership, during the course of normal production operations. The animals must move directly from property owned, leased, or rented by certain individual producers or entities directly to property owned, leased, or rented by these same individual producers or entities. A commuter herd agreement specifying testing or certifications excepted or required, and agreed upon by State and Federal officials and the individual or entity for each State affected must be in place prior to any movements and must be reviewed and renewed annually to remain in effect.

Comparative cervical tuberculin (CCT) test

The intradermal injection of biologically balanced USDA bovine PPD tuberculin (0.1 ml) and avian PPD tuberculin (0.1 ml) at separate sites in the midcervical area to determine the probable presence of bovine tuberculosis (*M. bovis*) by comparing the responses to the two tuberculins at 72 hours (plus or minus 6 hours) following injection. The CCT injection must occur either: (1) within 10 days following the CFT injection or (2) more than 60 days following the CFT injection. This test shall be administered only by a State or Federal veterinarian specifically trained in the application of the test.

Dealer

All persons engaged in the business of buying or selling livestock in commerce either on their own account or as the employees or agents of the vendor, purchaser, or both, or all persons engaged in the business of buying or selling livestock in commerce on a commission basis. The term shall not include persons who: (1) buy or sell livestock as part of their own bona fide breeding, feeding, or dairy or beef operations; (2) are not engaged in the business of buying, selling, trading, or negotiating the transfer of livestock; or (3) receive livestock exclusively for immediate slaughter on their own premises.

Designated Accredited Veterinarian

An Accredited Veterinarian trained and approved to conduct specific tuberculosis tests such as the bovine interferon gamma assay and/or other tuberculosis program activities.

Designated Tuberculosis Epidemiologist (DTE)

A State or Federal epidemiologist designated in each State by APHIS to make decisions concerning the use and interpretation of diagnostic tests for tuberculosis and to manage the tuberculosis program. The DTE must be selected jointly by the cooperating Chief State Animal Health Official, the AVIC, and the Regional Tuberculosis Epidemiologist. The National Center for Animal Health Programs – Eradication and Surveillance Team Staff of VS must concur with the appointment.

The DTE has the responsibility to determine the scope of epidemiologic investigations, determine the status of herds, assist in development of individual

herd plans, and coordinate disease surveillance and eradication programs within his or her geographic area of responsibility. The DTE has authority to make independent decisions concerning the use and interpretation of diagnostic tests and the management of herds when those decisions are supported by sound disease eradication principles.

Direct shipment to slaughter — The shipment of livestock from a premises, under permit and without unloading, directly to a slaughter establishment under State or Federal inspection and without diversion to assembly points, such as auctions, dealers, commission firm premises, public stockyards, or feedlots.

Epidemiology — A branch of medical science that deals with the incidence, distribution, and control of disease in the animal population.

Eradication — The complete elimination of bovine tuberculosis from livestock in a State or zone.

Exotic hoofstock — Hoofed livestock other than cattle, bison, domestic sheep and goats, horses, mules, donkeys and swine that are not considered indigenous to a State or zone: (e.g. certain species of antelope such as addax, blesbok, kudu, nilgai, and oryx; certain species of cervids such as axis, sika, and fallow deer; certain species of sheep and goats such as aoudad, ibex, and markhor; and certain species of equine such as zebra.)

Exposed animals — Any livestock that have been exposed to bovine tuberculosis by reason of associating with other livestock in which *M. bovis* has been diagnosed.

Feedlot — A confined drylot area for finish feeding of animals.

Geographic separation — A minimum of 30 feet of separation, no common or shared handling facilities or equipment, no common watering or feeding equipment, and no common feed vehicles that enter the premises of herds of different status. Also, if herds of different status are fed by the same personnel, workers must wear different outerwear (e.g., boots and coveralls) when moving from a lower status herd to a higher status herd.

Herd — Except for livestock assembled at feedlots, any group of livestock maintained for at least 4 months on common ground for any purpose, or two or more groups of livestock under common ownership or supervision that are geographically separated but that have an interchange or movement of livestock without regard to health status, as determined by the Administrator. This definition shall include:

1. All livestock under common ownership or supervision that are grouped on one or more parts of any single premises, farm, or ranch; or

2. All livestock under common ownership or supervision on two or more premises that are geographically separated, but in which the animals have been interchanged or had contact with animals from different premises. It will be assumed that contact between animals of the same species on the different premises has occurred unless the owner establishes otherwise and the results of the epidemiologic investigation are consistent with the lack of contact between premises; or

3. All livestock on common premises, such as community pastures or grazing association units, but owned by different persons. Other groups of animals owned or co-owned by the persons involved that are located on other premises are considered to be part of a herd unless the epidemiologic investigation

establishes that animals from an affected herd have not had the opportunity for direct or indirect contact with animals from that specific premises.

Herd depopulation — The destruction, by slaughter or by death otherwise, of all livestock in a herd that have been exposed to bovine tuberculosis. Restocking of the affected premises shall not begin until the depopulation and the required cleaning and disinfection have been completed, and the premises has been vacant of all livestock for at least 30 days.

Herd of origin — A herd of one or more sires and dams and their offspring from which animals in a consignment presented for interstate or international movement originate. The herd of origin may be the herd of birth or the herd where the animal has resided for a minimum 4-month period immediately prior to movement. If the owner/manager of the herd has two or more groups of animals at different locations, and there is movement of animals between the groups, then they are all considered to be one herd of origin. Additional animals can be moved into a herd of origin during or after the 4-month qualifying period if the animals: (1) originate from a tuberculosis accredited herd, or (2) originate from a herd that was negative on an official test for bovine tuberculosis conducted within the last 12 months and the individual cattle or bison being moved into the herd of origin are negative to any additional tests for tuberculosis required by the APHIS Administrator.

Herd test — An official tuberculosis test of all test eligible cattle or bison in a herd as well as any other commingled or exposed livestock which may be part of that herd, as deemed necessary by the Designated Tuberculosis Epidemiologist or the Regional Tuberculosis Epidemiologist.

Individual herd plan — A written disease management plan that is designed by the herd owner(s) and/or their representative(s), and a State or Federal veterinarian to eradicate tuberculosis from an affected herd while reducing human exposure to the disease. The herd plan will include appropriate herd test frequencies, tests to be employed, and any additional disease management or herd management practices deemed necessary to eradicate tuberculosis from the herd in an efficient and effective manner. The plan must be approved by the Chief State Animal Health Official and AVIC, and have the concurrence of the DTE or Regional Tuberculosis Epidemiologist.

Listed establishment — An establishment, such as a slaughter plant or a rendering plant, that operates under the provisions of Title 9, CFR, Part 71.

Livestock — Cattle, bison, cervids, swine, goats, and other hoofed animals including exotic hoofed animals, such as antelope, raised or maintained in captivity for any purpose. The domestic species llama and alpaca are also included. (*Note: Exclusion of any livestock being evaluated, tested, or depopulated because of tuberculosis on any particular premises shall only be made with the concurrence of the DTE and Regional Tuberculosis Epidemiologist.*)

Memorandum of Understanding (MOU) — A formal agreement between two or more entities that provides for conducting certain activities under specifically defined conditions.

Natural additions — Animals born and raised in a herd.

Negative animals — Any cattle or bison that show no response to an official tuberculosis test; are classified negative on the bovine interferon gamma assay if conducted; or are classified negative for tuberculosis by a State or VS veterinarian based upon history, supplemental tests, examination of the carcass, and histopathological examination and bacteriological culture of selected tissues.

No gross lesion (NGL)

Any animal that has no visible lesion(s) of bovine tuberculosis detected upon necropsy or slaughter inspection. (An animal with a skin lesion(s) alone will be considered in the same category as an NGL animal.)

Official eartag

An eartag approved by the APHIS Administrator as providing unique identification for each individual bovine or bison by conforming to the alphanumeric National Eartagging System.

Official identification/ officially identified

The identification of livestock by means of an official eartag, registration tattoo, or brand, or any other method approved by the Administrator of APHIS, that provides unique identification for each animal.

Official tuberculosis test

A test for bovine tuberculosis, approved by APHIS, applied and reported by authorized personnel (Part II, B.) in accordance with this UM&R. The official tuberculosis tests for cattle and bison are the:

- Caudal fold tuberculin test
- Comparative cervical tuberculin test
- Cervical tuberculin test
- Bovine interferon gamma assay (cattle only)

Parallel testing

Two or more diagnostic test procedures applied to an animal or herd simultaneously. If one or more of the test procedures is positive, the animal or herd cannot be classified as negative.

Permit

An official document issued by a VS representative, a State representative, an Accredited Veterinarian, or a designated Accredited Veterinarian that is required to accompany any reactor, suspect, or exposed livestock to slaughter. The permit will list: (1) the reactor tag number or official eartag number in the case of reactor, suspect, or exposed livestock; (2) the owner's name and address; (3) origin and destination locations; (4) number of animals covered; and (5) the purpose of the movement. If a change in destination becomes necessary, a new permit must be issued by authorized personnel. No diversion from the destination on the permit is allowed.

Premises identification number

An APHIS-approved method of identification that includes the assignment of a unique number or alpha-numeric number to a premises by State or Federal animal health officials and with such premises number or alpha-numeric number being applied to the individual animal(s) residing on, or being moved from the premises.

Program herd

Any herd of livestock known or suspected of being affected with, or exposed to, *M. bovis* that is being evaluated by State and/or Federal animal health officials to determine its disease status.

Reactor

Any bovid (genus *Bos*) or bison that shows a response to an official tuberculosis test and is classified a reactor by the testing veterinarian or DTE, or any suspect animal that is classified a reactor by the DTE upon slaughter inspection or necropsy, histopathological examination, PCR assay, and/or culture of selected tissues collected by the Federal or State veterinarian performing or supervising the slaughter inspection or necropsy.

Responder

Any livestock officially skin tested for tuberculosis that has a visible or palpable response at the site of tuberculin injection.

Routine testing

CFT tests conducted as part of a State or zone eradication or surveillance program in which the results of all tested animals are reported to the appropriate State and/or Federal animal health officials.

Split status State

A State designated by APHIS and State animal health officials as having two or more geographic areas with different bovine tuberculosis statuses. Such a State must meet annual performance measures outlined in an MOU to maintain split status.

State or zone status

One of five categories for which a State or zone may qualify based on: (1) the infrastructure existing in the State or zone for conducting a bovine tuberculosis eradication program; (2) the compliance with the provisions of this UM&R; and (3) the prevalence of infection in the State or zone. The five categories are: (1) Accredited-free State or zone; (2) Modified Accredited Advanced State or zone; (3) Modified Accredited State or zone; (4) Accreditation Preparatory State or zone; and (5) non-accredited State or zone.

The requirements and standards for attaining and maintaining each of the five State or zone bovine tuberculosis eradication program status levels are provided in Part V of this UM&R.

Suspect

Any cattle or bison that show a response to the CFT test and are not classified as reactor, or any cattle or bison that have been classified as suspect by CCT tests; the bovine interferon gamma assay; or any other official test for tuberculosis.

Test eligible cattle or bison (Herd Accreditation/ Reaccreditation Test)

1. In Accredited-free States or zones: all cattle or bison 24 months of age (as evidenced by the central incisors being fully erupted and in wear) and older.
2. In Modified Accredited Advanced States or zones: all cattle or bison 18 months of age (as evidenced by the loss of the central deciduous incisors) and older.
3. In Modified Accredited States or zones: all cattle or bison 12 months of age and older.
4. In Accreditation Preparatory States or zones: all cattle or bison regardless of age.

Test eligible cattle or bison (for movement)

1. From Accredited-free States or zones: no test required.
2. From Modified Accredited Advanced States or zones: all cattle and bison 18 months of age (as evidenced by the loss of the central incisors) and older. *(Note: Applicable when a test for movement is required. See Part III, D.2.d.)*
3. From Modified Accredited States or zones: all cattle and bison to be moved that are 2 months of age and older. *(Note: Applicable when a test for movement is required. See Part III, D.3.b. and Part III, D.3.d.)*
4. From Accreditation Preparatory States or zones: cattle and bison of all ages. *(Note: Applicable when a test for movement is required. See Part III, D.4.b and Part III, D.4.c.)*

Test eligible cattle or bison (Program Herds)

In accordance with the individual herd plan or applicable eradication program standards.

Tuberculin A product approved by USDA and produced under USDA license for injection into livestock for the purpose of detecting bovine tuberculosis.

Zone A defined geographical land area identifiable by geological, political, manmade, or surveyed boundaries with mechanisms of disease spread, epidemiological characteristics, and the ability to control the movement of animals across the boundaries of the zone taken into account.

PART II - General Procedures (Minimum Requirements)

A. Authority to implement and administer tuberculosis program control and eradication measures

State laws and/or regulations must be in place to provide the authority to apply tuberculosis tests to any livestock, and to restrict the movement of any livestock, or any other animal(s), including captive wildlife suspected of being affected with, or exposed to *M. bovis,* at such times as may be deemed necessary by the cooperating State or Federal animal health officials. These officials reserve the right to supervise and monitor any tuberculosis testing or any other official tuberculosis control and eradication activities conducted by an Accredited Veterinarian or a designated Accredited Veterinarian. (*Note: Any livestock that are being considered for Johne's disease vaccination must be negative to an official tuberculosis test prior to such vaccination.*)

B. Personnel authorized to apply official tuberculosis tests

Official tuberculosis tests shall be conducted by State or Federal animal health veterinarians by Accredited Veterinarians (CFT test only); or by designated Accredited Veterinarians. Technicians employed by State or Federal governments and approved by such governments may conduct routine screening tuberculosis (CFT) tests when directly supervised by State or Federal animal health veterinarians.

C. Approved laboratories

The primary laboratory for all tuberculosis diagnostic purposes shall be NVSL, Ames, Iowa. State, Federal, or NAHLN veterinary laboratories may also be recognized by APHIS to conduct official tuberculosis program diagnostic testing. FSIS laboratory results are acceptable for tissue examination of regular kill slaughter cattle or bison in those cases where no submission was made to NVSL.

D. Presumptive diagnostic test

The CFT test is the official test for routine use in individual cattle or bison and herds of such animals where the tuberculosis status of the animals is unknown. Cattle and bison shall not be subjected to a CFT retest at an interval of less than 60 days.

E. Supplemental diagnostic tests and procedures

1. The CCT test is an official test for retesting cattle or bison tuberculin test suspects. It shall be applied only by a State or Federal regulatory veterinarian specifically trained in conducting the test and shall not be used in known affected herds without the prior written consent of cooperating State-Federal animal health officials. The CCT test shall not be used as a primary test for animals of unknown status.

2. The bovine interferon gamma assay may be used in cattle herds only, and only when approved by the Chief State Animal Health Official and AVIC as an official test for use in the State and with the concurrence of the DTE and the VS Regional Tuberculosis Epidemiologist, as outlined in Part III, A.4.

3. Currently, histopathology, diagnostic bacteriology, and PCR assay of formalin-fixed tissue are all supplemental diagnostic procedures approved for use in the program. These procedures should be used in conjunction with tuberculosis test results and necropsy or slaughter data to assign herd status.

F. Primary diagnostic test

1. The CT test is the recommended test for use in herds affected with bovine tuberculosis and is required as the initial test for testing exposed cattle or bison from such herds. The CT test shall be applied only by a veterinarian employed by the State or Federal government. Results of a CT test can only be classified as reactor or negative.

2. The CFT test is a primary diagnostic test in cattle or bison when used in lieu of the CT test in herds affected with bovine tuberculosis. Any response shall warrant the reactor classification. The CFT test may only be used as a primary diagnostic test when applied by a veterinarian employed by the State or Federal government and with the approval of the DTE or Regional Tuberculosis Epidemiologist.

G. Tuberculin test interpretation

1. Decisions will be based upon the professional judgment of the testing veterinarian in accordance with the policy established by the cooperating State and Federal animal health officials and the test requirements outlined in these UM&R under Part III, A.

2. The injection site on each animal shall be palpated and any responses recorded and reported. Observation without palpation is not acceptable and shall constitute cause for removal of veterinary accreditation.

H. Cleaning and disinfection of premises, conveyances, and materials

All premises—including all structures, holding facilities, feed and water troughs, conveyances, and materials—that are determined by the appropriate cooperating State and Federal animal health officials to constitute a health hazard to humans or animals because of bovine tuberculosis shall be properly cleaned and disinfected. This shall be done in accordance with procedures approved by such State and Federal animal health officials within 15 days after the removal of tuberculosis-affected or exposed cattle and bison and other tuberculosis-affected or exposed livestock. However, these officials, for reasons satisfactory to them, may extend the time limit for disinfection to 30 days when a request for such extension is received before the expiration date of the original 15-day period allowed.

I. Determination of the State-of-origin of infected animals

Tuberculosis found during slaughter inspection or otherwise in any livestock will be considered to have originated in the State where the animal was slaughtered or the disease was disclosed unless successful traceback procedures identify another State as the original source.

J. Identification

1. All cattle or bison tested shall be officially identified at the time an official tuberculosis test is conducted.

2. Cattle or bison moved in channels of trade within a State or zone shall be individually identified as approved by the Chief State Animal Health Official and recorded as to origin and destination at the first concentration point (dealer, livestock auction, stockyard, etc.) as follows:

   a. Cattle or bison over 2 years of age that are returned to farms or ranches shall be identified by official eartag, backtag, premises identification number, or by an official brand. If identified by brand, the cattle or bison must be accompanied by a completed official brand release document acceptable to the Chief State Animal Health Official.

   b. Cattle or bison that are marketed for immediate slaughter shall be identified by eartag, sale tag, or official backtag. A completed official brand release document that is acceptable to the Chief State Animal Health Official may be used to identify lots of animals having a single origin that are shipped directly to slaughter.

K. Dealer Registration and Recordkeeping

Any dealer who purchases, deals in, or sells cattle or bison; or who acts as a commission representative or broker; or who operates and conducts an auction in which cattle or bison are sold, must be registered or licensed with the appropriate State agency and maintain the records required to facilitate the traceback of affected, exposed, suspect, or reactor animals by State animal health officials to the herd of origin or other

point of original infection. Such records must be maintained for a minimum of 2 years as of January 1, 2005; 3 years as of January 1, 2006; 4 years as of January 1, 2007; and 5 years as of January 1, 2008. Such records must be made available to State or Federal animal health officials, upon request, during normal business hours.

1. Dealer registration—The State agency shall have authority, after due notice and after providing an opportunity for a hearing to the individual or firm involved, to deny an application for registration and to suspend or cancel the registration when the agency is satisfied that one or more of the following conditions prevail:

    a. There is adequate evidence to establish intent to violate or circumvent recordkeeping requirements of this section, other animal health regulations, or both.

    b. There is a demonstrated history of repeated inability to trace to the point of origin those affected, exposed, suspect, or reactor animals handled by the dealer.

A brand law or regulation that accomplishes the traceback purposes of this section will be considered an acceptable alternative to dealer registration. Acceptance of this alternative will be based on an overall review, conducted by the Regional Tuberculosis Epidemiologist and/or an APHIS program review team, of the provisions and accomplishments of the State program in achieving the effective traceback of all animals to the herd of origin or other point of original exposure.

2. Violations/remedies—Provisions shall exist for State animal health officials to take such action as necessary to enforce compliance with any provision of the recommended procedures discussed in these UM&R. This shall include the authority to subpoena persons and/or records in violation of these minimum standards as well as authority for the appropriate State officials to petition the local court having venue for an order to enforce such subpoenas.

Part III — Standard Procedures (Minimum Requirements)

A. Classification of cattle and bison tested

1. CFT test—All responses shall be recorded and the animal classified as suspect unless, in the professional judgment of the testing veterinarian and/or the DTE, the reactor classification is indicated.

2. CT test—All animals with a response shall be classified as reactors.

3. CCT test—Responses shall be recorded and plotted on the CCT scattergram (VS Form 6–22D). Classification shall be according to the zone in which the animal is plotted (negative, suspect, or reactor); however, animals plotting in the suspect zone on two successive CCT tests shall be classified reactor.

Exceptions to the classification listed above may occur when animals plotting in the reactor zone or plotting in the suspect zone on two consecutive CCT tests are, at the discretion of the DTE or Regional Tuberculosis Epidemiologist, reclassified as suspect, provided that there has been no known association of the herd with *M. bovis*. Animals classified as suspect in these situations must be moved directly to slaughter under permit. The postmortem examination shall be witnessed by a State or Federal animal health veterinarian in addition to the attending FSIS or State meat inspection veterinarian. Specimens, to include any tissue with granulomatous appearing lesions and representative head and thoracic lymph nodes, must be submitted for laboratory examination. If such suspects fail to disclose gross evidence of bovine tuberculosis, are negative on histopathology and bacteriological cultures for *M. bovis,* and a complete epidemiologic investigation, including a herd test of all eligible animals, fails to disclose evidence of bovine tuberculosis or exposure thereto, the herd, with the concurrence of the DTE and the Regional Tuberculosis Epidemiologist, may be considered free of bovine tuberculosis. Any additional exceptions by the DTE and the Regional Tuberculosis Epidemiologist may be made only with the concurrence of the National Tuberculosis Epidemiologist.

4. The bovine interferon gamma assay, when approved for use as an official tuberculosis test in the State by the Chief State Animal Health Official and AVIC may, at the discretion of the DTE and with the concurrence of a VS Regional Tuberculosis Epidemiologist, be used in cattle herds as follows:

   a. In parallel testing with the CCT test.

   b. As a replacement for the CCT test for retesting CFT test suspects. (CCT test suspects must be retested negative on the CCT test prior to reclassifying such suspects as negative.)

   c. In parallel with the CFT test or CT test in affected herds.

   Results of the bovine interferon gamma assay shall be reported by the testing laboratory to the appropriate DTE and/or Regional Tuberculosis Epidemiologist for classification. Animals positive on a single bovine interferon gamma assay should be classified as suspect unless the DTE or the Regional Tuberculosis Epidemiologist determines that a reactor classification is justified. Animals positive on two successive bovine interferon gamma assays should be classified as reactor; exceptions to a reactor classification must be justified and documented by the DTE or Regional Tuberculosis Epidemiologist.

5. Reclassification of animals—When a herd test results in the confirmation of bovine tuberculosis, all responders on the initial CFT test shall be reclassified as suspects or reactors. Such animals shall be promptly identified and subjected to postmortem examination under the direct supervision of a State or Federal animal health veterinarian.

B. Reporting of tests

A report of all approved tuberculosis tests shall be submitted in accordance with the requirements of the cooperating State and Federal animal health officials. The report shall include the official identification, age, sex, and breed of each animal and a record of all responses and test interpretations.

C. Disposition of tuberculin-responding cattle and bison

1. Reactors shall remain on the premises where they were disclosed until a State or Federal permit for movement has been obtained. Movement for immediate slaughter shall be within 15 days of classification and shall be directly to a slaughtering establishment where approved State or Federal inspection is maintained. Alternatively, the animals may be destroyed on the premises or in a postmortem examination facility under the direct supervision of a State or Federal animal health veterinarian to ensure that a proper postmortem examination is conducted; that the carcasses are disposed of by deep burial or burning, and that the facilities are adequately cleaned and disinfected.

2. Herds containing suspects to the CFT test shall be quarantined until the suspect animals are:

   a. Negative to a CCT test; or

   b. Negative on the bovine interferon gamma assay (when approved for use as stipulated in Part III, A.4.); or

   c. Shipped, under permit, directly to slaughter in accordance with State and Federal laws and regulations with postmortem examinations conducted as outlined in Part III, C.5.

3. Suspects to the CCT test must be:

   a. Negative to a CCT retest 60 or more days after the previous CCT injection; or

   b. Shipped under permit directly to slaughter.

4. Animals positive on the bovine interferon gamma assay and classified as suspect must be:

   a. Negative on a bovine interferon gamma assay retest conducted within 30 days of the CFT injection (the DTE or Regional Tuberculosis Epidemiologist must concur with the retest); or

   b. Shipped, under permit, directly to slaughter for postmortem examination.

5. Postmortem examinations shall be witnessed by a State or Federal animal health veterinarian and selected tissue specimens, to include any tissue with granulomatous appearing lesions and representative head and thoracic lymph nodes, must be submitted for laboratory examination.

D. Interstate or interzone movement requirements for tuberculosis (cattle or bison not known to be affected with or exposed to tuberculosis) *Note: See Appendix A for an abbreviated outline of test requirements for cattle or bison from nonaccredited herds, other than commuter herds, being moved for breeding or feeding purposes. See Appendix B for an abbreviated outline of test requirements for cattle or bison from accredited herds being moved for breeding or feeding purposes.*

1. From Accredited-free States or zones: cattle or bison that originate in an Accredited-free State or zone may be moved interstate with no restrictions for tuberculosis.

2. From Modified Accredited Advanced States or zones:

   a. The cattle or bison are moved directly to slaughter at an approved slaughtering establishment, or are either officially identified or identified by an official premises identification number and are moved through one approved livestock facility and then direct to an approved slaughtering establishment.

   b. The cattle or bison are sexually intact heifers moved directly to an approved feedlot, or are moved through one approved livestock facility and then direct to an approved feedlot, or are steers or spayed heifers; and are either officially identified or identified by an official premises identification number.

c. The cattle or bison are from an accredited herd and are accompanied by a certificate stating that the accredited herd completed the testing necessary for Accredited status with negative results within 2 years prior to the date of movement.

d. The cattle or bison are sexually intact animals that: (1) are not from an accredited herd or a commuter herd; (2) are officially identified or are identified by an official premises identification number; and (3) are accompanied by a certificate stating that the animals included in the movement that are 18 months of age and older, tested negative to an official tuberculosis test conducted within 60 days prior to the date of movement. *Except that*: the individual animal(s) to be moved need not be retested if they were included on a negative herd of origin herd test conducted within 6 months of the interstate movement.

3. From Modified Accredited States or zones:

a. The cattle or bison are moved directly to slaughter at an approved slaughtering establishment, or are either officially identified or identified by an official premises identification number and are moved through one approved livestock facility and then direct to an approved slaughtering establishment.

b. The cattle or bison are sexually intact heifers moved directly to an approved feedlot, or are moved through one approved livestock facility and then direct to an approved feedlot, or are steers or spayed heifers; are either officially identified or identified by an official premises identification number and are accompanied by a certificate stating that the animals included in the movement that are 2 months of age and older were classified negative to an official tuberculosis test conducted within 60 days prior to the date of movement.

c. The cattle or bison are from an accredited herd and are accompanied by a certificate stating that the accredited herd completed the testing necessary for Accredited status with negative results within 1 year prior to the date of movement.

d. The cattle or bison are sexually intact animals that: (1) are not from an accredited herd or a commuter herd; (2) are officially identified or are identified by an official premises identification number; (3) are accompanied by a certificate stating that they are from a herd of origin that was negative to an official tuberculosis herd test of all cattle and bison 12 months of age and older conducted within 1 year prior to the date of movement; and (4) that the individual animal(s) to be moved that are 2 months of age and older tested negative to an additional official tuberculosis test conducted within 60 days prior to the date of movement. *Except that*: the additional test is not required if the animal(s) are moved interstate or interzone within 60 days following the herd of origin herd test and provided the animals to be moved that are two months of age and older were included on the herd of origin herd test.

4. From Accreditation Preparatory States or zones:

a. The cattle or bison are moved directly to slaughter at an approved slaughtering establishment, or are either officially identified or are identified by an official premises identification number and are moved through one approved livestock facility and then direct to an approved slaughtering establishment.

b. The cattle or bison are sexually intact heifers moved directly to an approved feedlot, or are moved through one approved livestock facility and then direct to an approved feedlot, or are steers or spayed heifers; are either officially identified or identified by an official premises identification number and are accompanied by a certificate stating that they are from a herd of origin that was negative to a herd test conducted within 1 year prior to the date of movement and that the individual animal(s) to be moved tested negative to an official tuberculosis test conducted within 60 days prior to the date of movement. *Except that:* the additional test is not required if the animal(s) to be moved are moved interstate or interzone within 60 days following the herd of origin herd test and provided the animals to be moved were included on the herd of origin herd test.

c. The cattle or bison are from an accredited herd; are officially identified; and are accompanied by a certificate stating that the accredited herd completed the testing necessary with negative results within 1 year prior to the date of movement and that the animal(s) to be moved were negative to an official tuberculosis test conducted within 60 days prior to the date of movement.

5. From nonaccredited States or zones: may be moved interstate or interzone only if the cattle or bison are accompanied by VS Form 1-27 and are moved interstate or interzone in an officially sealed means of conveyance directly to an approved slaughtering establishment for immediate slaughter.

6. Cattle or bison that are members of a recognized and approved commuter herd may be moved interstate or interzone in accordance with the applicable commuter herd agreement.

No cattle or bison responding to an official tuberculosis test are eligible for interstate movement unless such animal(s) are subsequently classified "negative for *M. bovis*" based upon an official CCT test and/or bovine interferon gamma assay. (*Note: 9 CFR, Section 77.17 (c), prohibits the interstate movement of suspect cattle and bison and negative cattle or bison in herds containing suspect cattle or bison (except for slaughter) until the tuberculosis status of all suspect(s) has been determined.)*

E. Procedures in tuberculosis-affected herds

Disclosure of tuberculosis in any herd shall be followed by a complete epidemiologic investigation. All cattle and/or bison in herds from which tuberculosis-affected cattle and/or bison originate, and all cattle and/or bison that are known to have associated with affected cattle and/or bison, shall be tested promptly. These procedures shall apply to adjacent and contact herds as well as to the evaluation and testing of possible source herds for the affected herd. Herds that have received exposed animals shall be tested following the slaughter or testing of exposed animals. Every effort shall be made to ensure the immediate elimination of the disease from all species of livestock on the premises. The first consideration in affected herds is the depopulation of the entire herd. If depopulation cannot be accomplished, the herd shall be handled as outlined in Part III, J.

F. Procedures in tuberculosis-affected feedlots

A tuberculosis-affected feedlot shall be handled in the same manner as an affected herd in regard to epidemiologic investigation and the development of epidemiologic tracings for animal movements into and out of the feedlot. Emphasis during investigations and testing shall be on detecting possible spread from the feedlot. Cattle and bison in feedlots known to be exposed to tuberculosis shall be quarantined and shipped under permit directly to slaughter. Feedlots or portions of feedlots that have contained tuberculosis infected and exposed cattle or bison shall be vacated, cleaned, and disinfected following the removal of such cattle or bison to slaughter. Restocking a feedlot, or portion of a feedlot that has contained tuberculosis infected and exposed cattle or bison, shall not begin until the required cleaning and disinfection have been completed and the feedlot or portion of the feedlot that contained infected cattle or bison has been vacant of all livestock for a minimum of 30 days. *Except that:* Approved feedlots and approved pens are exempt from the requirement to hold pens vacant for 30 days following the required cleaning and disinfection.

G. International movement requirements for tuberculosis (cattle or bison not known to be affected with or exposed to tuberculosis)

No cattle or bison responding to an official tuberculosis test are eligible for international movement. The testing protocol for international movement shall be in accordance with the tuberculosis test requirements of 9 CFR, Section 91.5, and with the tuberculosis test requirements of the receiving countries.

H. Identification of reactor cattle and bison

Reactor cattle and bison shall be identified by branding the letter "T" on the left hip near the tailhead, not less than 2 inches (5 cm) and not more than 3 inches (7.5 cm) high, and by tagging with an approved metal eartag bearing a serial number and inscription "U.S. Reactor" or a similar State reactor tag suitably attached to the left ear of each animal. Such reactors may be shipped to slaughter under permit. In lieu of branding, the reactor(s) may be

shipped, under permit, to slaughter in an officially sealed vehicle or accompanied to slaughter by a State or Federal animal health official, provided the letters "TB" are applied to the left hip with yellow paint.

I. Identification of exposed cattle, bison, and other livestock

1. To be eligible for Federal indemnity, exposed cattle and bison shall be identified by branding the letter "S" on the left hip near the tailhead, not less than 2 inches (5 cm) and not more than 3 inches (7.5 cm) high, and by tagging with an approved metal eartag bearing a serial number attached to either ear of each animal. Such exposed animals must be shipped to slaughter under permit. In lieu of branding, the letter "S" may be applied to the left hip of exposed cattle and bison with yellow paint. Such nonbranded animals must be accompanied to slaughter by a State or Federal representative or be shipped under permit in a vehicle closed with official seals.

2. To be eligible for Federal indemnity, other exposed livestock shall be identified by tagging with a serially numbered metal eartag attached to either ear. All such animals to be destroyed shall be transported, under permit, to the place of destruction in vehicles closed with official seals or shall be accompanied to the place of destruction by a Federal or State representative. Animals may be destroyed and disposed of under the direct supervision of a Federal or State representative on the premises where the animals were exposed.

J. Quarantine procedures

1. All herds in which reactor animals are disclosed shall be quarantined immediately. Exposed animals must remain on the premises where disclosed unless a State or Federal permit for movement has been obtained. Movement of animals for immediate slaughter must be shipped directly to a slaughtering establishment where approved State or Federal inspection is administered. Exposed animals must be identified by official eartags. The "S" branding of exposed animals is required unless the letter "S" is applied to the left hip with yellow paint and the animals are shipped in a sealed vehicle under permit or, in lieu of sealing the vehicle, the animals are accompanied to slaughter by a State or Federal representative.

2. Sale of feeder calves from quarantined herds shall be restricted. Feeder calves under 12 months of age that have passed a CFT test within 60 days may be permitted to move intrastate (to include between zones within the same State) to an approved feedlot.

3. Herds in which *M. bovis* infection has been confirmed shall remain under quarantine, if not depopulated, until all requirements of an individual herd plan have been completed. The herd testing requirement shall consist of at least two consecutive tests of the herd in which all responders to a primary diagnostic test (CT or CFT tests) have been examined postmortem with no evidence of *M. bovis* infection, followed by six consecutive tests of the herd in which all responders to a primary diagnostic test (CFT test only) have been classified negative to a supplemental test(s) (CCT test, bovine interferon gamma assay) and/or postmortem procedures. The testing intervals for the eight required herd tests for quarantine release are as follows: (1) at least 60 days between tests for the first four herd tests; (2) at least 180 days between the fourth and fifth herd test; and (3) at least 12 months between tests for the sixth through eighth herd tests. If the herd is located in an area where *M. bovis* is known to affect one or more species of wildlife, the herd will not be released from quarantine prior to implementation of the provisions of a herd plan that is designed to mitigate the potential for exposure and that is approved by the DTE and the Regional Tuberculosis Epidemiologist. All animals moved from the premises prior to being released from quarantine shall be shipped directly to slaughter and shall be accompanied by a permit issued by a State or Federal representative. The herd must undergo two additional negative annual herd tests after the quarantine is released. The two required postquarantine release tests may be applied to accreditation status.

4. Herds in which only NGL reactor(s) occur and selected tissues, to include representative head and thoracic lymph nodes, are found negative on histopathology, and in which no evidence of *M. bovis* infection has been disclosed, may be released from quarantine only after a negative retest of the entire

herd is completed at least 60 days subsequent to slaughter of the NGL reactors, unless such retest is exempted by the DTE in consultation with the Regional Tuberculosis Epidemiologist.

5. Herds in which at least one suspect and no reactor animals are disclosed shall be quarantined until all suspects are retested and classified negative, or shipped directly to slaughter under permit and no evidence of *M. bovis* infection is disclosed.

   If animals are slaughtered as suspects according to Part III, A., but show no gross lesions and selected tissues, to include representative head and thoracic lymph nodes, are found negative on histopathology and bacteriological culture for *M. bovis* and a complete epidemiologic investigation, including a herd test of all eligible animals, fails to disclose evidence of bovine tuberculosis or exposure thereto, the herd, with the concurrence of the DTE and Regional Tuberculosis Epidemiologist, may be considered free of bovine tuberculosis. A 90-120 day herd retest is recommended.

6. Herds indicated as the source(s) of slaughter traceback case investigations shall be placed under quarantine within 15 days of notification, and a herd test of all eligible livestock shall be scheduled.

   The testing of source herds of regular kill animals having lesions of bovine tuberculosis shall be done by State or Federal animal health veterinarians. When slaughter and marketing records provide strong evidence that traces to the herd of origin, all animals responding to the CFT test shall be classified as reactors. In all other cases, with approval of the DTE or Regional Tuberculosis Epidemiologist, the CCT test and/or bovine interferon gamma assay may be used to classify responders to the CFT test.

7. Testing of source herds of reactors disclosed in affected herds shall be by State or Federal regulatory veterinarians using the CFT test procedure. Responding animals may be classified as reactors or, if classified as suspects, may be retested by the CCT test and/or the bovine interferon gamma assay.

8. Herds containing known bovine tuberculosis exposed animal(s) shall be placed under quarantine until the tuberculosis status of the exposed animal(s) has been determined by postmortem examination or by at least one negative CT test and the remainder of the test eligible animals in the herd are determined to be negative following an official CFT test.

K. Retest schedules for high-risk herds

1. In herds with a history of lesions suggestive of bovine tuberculosis (but not confirmed), two negative annual herd tests shall be conducted after the herd is released from quarantine. The first test is to be applied approximately 1 year after release from quarantine.

2. In a newly assembled herd on premises where a tuberculosis-affected herd has been depopulated, two negative annual herd tests shall be applied to all cattle, bison, and other livestock. The first test must be applied approximately 6 months after assembly of the new herd. The exclusion of any species from these herd test requirements must be approved by the DTE or Regional Tuberculosis Epidemiologist. If the premises are vacated for over 1 year, these test requirements can be waived by the DTE or the Regional Tuberculosis Epidemiologist.

3. Exposed animals previously sold from a known-affected herd shall be depopulated with indemnity if at all possible. If the exposed animal(s) are not depopulated, only the CT test shall be used as the initial test. All responding animals shall be classified as reactors. If negative to the initial test, the exposed animal(s) will subsequently be handled as if they were a part of the affected herd of origin in respect to quarantine, testing for quarantine release, and the two negative annual tests following release from quarantine. The remainder of the herd shall be tested as outlined in (b) below and, if negative, retested in 1 year with the CFT test. The receiving herd shall initially be tested as follows:

   a. If lesions of tuberculosis (based on histopathologic examination) are found in the exposed animal(s), and/or *M. bovis* is isolated from tissues submitted from exposed animal(s) for bacteriological examination, the remainder of the herd shall be depopulated or tested, preferably with the CT test.

b. In all other cases, the remainder of the herd shall be tested by the CFT test. The responding animals may be classified as suspects and retested with the CCT test and/or the bovine interferon gamma assay.

4. In herds where *M. bovis* infection has been confirmed but the herd has not been depopulated, testing shall be in accordance with Part III, J. 3.

L. Surveillance around an *M. bovis* affected herd where wildlife are known to be affected

All livestock herds, within a 10-mile radius, will be tested within 6 months of any diagnosis of bovine tuberculosis in livestock or free ranging wildlife.

Part IV — Accredited Herd Plan for Cattle or Bison

A. Animals to be tested—Testing of herds for accreditation or reaccreditation shall include all test eligible cattle or bison as follows:

1. In Accredited Free States or zones: all cattle or bison 24 months of age and older as evidenced by the central incisors being fully erupted and in wear.

2. In Modified Accredited Advanced States or zones: all cattle or bison 18 months of age and older as evidenced by the loss of the central deciduous incisors.

3. In Modified Accredited States or zones: all cattle or bison 12 months of age and older.

4. In Accreditation Preparatory States or zones: all cattle and bison regardless of age.

(Note: The animals required to be tested in herds being tested for accreditation or reaccreditation in States having more than one status [split status state(s)] shall be the same for the whole State and shall be that of the lowest status of any zone within the State.)

In previously affected herds that have been released from quarantine following the testing protocol outlined in Part III, J.3., the two required negative annual herd tests postquarantine release may be used to qualify the herd for accreditation.

All purchased additions shall be individually identified and recorded on the test report as purchased additions (PA) members of the herd at the time of the annual or biennial test.

B. Accreditation and reaccreditation—To qualify for Accredited herd status, the herd must pass at least two consecutive official tuberculosis tests conducted within an interval of 9-15 months with no evidence of bovine tuberculosis. All animals must be bona fide members of the herd. Additions to the herd during the qualifying period for accreditation, other than natural additions, must meet the requirements specified in Part IV, C. Herds meeting the qualifications for accreditation shall be issued a certificate of accreditation and other appropriate information shall be provided by the local State and Federal animal health officials to emphasize the significance of the herd-accreditation plan.

In Accredited-free and Modified Accredited Advanced States or zones, the accreditation period will be 24 months from the anniversary date and not 24 months from the date of the reaccreditation test. To qualify for reaccreditation, the herd must pass a negative test within 21-27 months of the anniversary date.

In Modified Accredited and Accreditation Preparatory States or zones, the accreditation period will be 12 months from the anniversary date and not 12 months from the date of the reaccreditation test. To qualify for reaccreditation, the herd must pass a test within 9-15 months of the anniversary date.

For continuous herd accreditation, the reaccreditation test must be conducted on the anniversary date or within a time period of 3 months prior to the anniversary date. If the reaccreditation test is conducted following the anniversary date, the Accredited status of the herd will be suspended until the reaccreditation test is completed. If the reaccreditation test is not competed within 3 months following the anniversary date, the requirements for reaccrediting the herd will be the same as for initial herd accreditation.

The DTE and Regional Tuberculosis Epidemiologist must jointly certify, in writing, that herds applying for Accreditation status, which are located in States or zones with wildlife reservoirs of bovine tuberculosis and/or States or zones with a tuberculosis status of Modified Accredited or lower, have taken adequate precautions and have in place appropriate biosecurity measures, which have been documented in a written herd plan, that ensure the herd has not been exposed to bovine tuberculosis during the accreditation process and will not be exposed to bovine tuberculosis following accreditation. Minimal biosecurity requirements in the herd plan for herds applying for accreditation status in States or zones, with wildlife reservoirs of *M. bovis* must include

specific provisions for protecting livestock feeding sites and feed storage areas from being contaminated by *M. bovis* and provide effective strategies to reduce or divert wildlife populations from entering the premises of the accredited herd.

C. Additions—Accredited herd additions must originate directly from such herds as outlined below and must meet the minimum tuberculosis test requirements as indicated:

Origin of Herd Addition(s)	Tuberculosis Test Requirement
1. Accredited herd in a State or zone recognized as Accredited-free within the past 5 years	No tuberculosis test requirement on the individual animal(s) addition(s).
2. Accredited herd in a State or zone not recognized as Accredited-free within the past 5 years	Official negative tuberculosis test on the individual animal(s) addition(s) within 60 days prior to entering the premises of the receiving accredited herd.
3. Nonaccredited herd in an Accredited-free State or zone	Official negative tuberculosis test on the individual animal(s) addition(s) within 60 days prior to entering the premises of the receiving accredited herd.
4. Nonaccredited herd in a Modified Accredited Advanced State or zone recognized as Accredited-free within the past 5 years	The herd of origin for the addition(s) must have received a negative herd test of all cattle and bison 18 months of age or older within the past 12 months. Also, the individual animal(s) for addition that are 2 months of age and older must have a negative tuberculosis test within 60 days prior to entering the premises of the accredited herd.
5. Nonaccredited herd in a Modified Accredited Advanced State or zone not recognized as Accredited-free within the past 5 years	The herd of origin for the addition(s) must have received a negative herd test of all cattle and bison regardless of age (unless under 6 months of age and nursing a negative dam) within the past 12 months. Also, the individual animal(s) for addition that are 2 months of age and older must have a negative tuberculosis test within 60 days prior to entering the premises of the accredited herd.
6. Nonaccredited herd in a Modified Accredited State or zone recognized as Accredited-free within the past 5 years	The herd of origin for the addition(s) must have received a negative herd test of all cattle and bison 12 months of age or older within the past 12 months. Also, the individual animal(s) for addition that are 2 months of age and older must have a negative tuberculosis test within 60 days prior to entering the premises of the accredited herd. The individual animal(s)

Origin of Herd Addition(s)	Tuberculosis Test Requirement
	for addition must also be isolated (geographic separation) from all members of the accredited herd until they are negative to a tuberculosis test conducted no sooner than 60 days from the date of entry onto the premises of the accredited herd.
7. Nonaccredited herd in a Modified Accredited State or zone not recognized as Accredited-free within the past 5 years	The herd of origin for the addition(s) must have received a negative herd test of all cattle and bison regardless of age (unless under 6 months of age and nursing a negative dam) within the past 12 months. Also, the individual animal(s) for addition that are 2 months of age and older must have a negative tuberculosis test within 60 days prior to entering the premises of the accredited herd. The individual animal(s) for addition must also be isolated (geographic separation) from all members of the accredited herd until they are negative to a tuberculosis retest conducted no sooner than 60 days from the date of entry onto the premises of the accredited herd.
8. Nonaccredited herd in an Accreditation Preparatory State or zone	No provisions for additions from nonaccredited herds. Additions must originate from Accredited herds.

Animals added under (3), (4), (5), (6) or (7) in this section shall not receive Accredited herd status for sale purposes until they have been members of the herd at least 60 days and after being retested with a negative result 60 or more days after entry. In the case of animals added under (6) or (7), Accredited herd status for sale purposes would not occur until such animals were retested with a negative result 60 or more days following the test conducted to release them from isolation (geographic separation) and making them eligible to enter the Accredited herd.

D. **Artificial insemination**—semen for artificial insemination in Accredited herds must be from sires in Accredited herds or from sires with a negative result on an official test for tuberculosis performed within 12 months prior to the date of the semen collection.

Part V—State or Zone Status

A. General provisions

1. Revocation or suspension of status—Disclosure of tuberculosis in a State or zone and/or failure of a State or zone to take progressive steps to comply with these UM&R to seek out and eliminate bovine tuberculosis shall be cause for revocation or reduction of status.

2. A State or zone may maintain status, as defined in 9 CFR, Section 77.5, if the State or zone complies with all of the procedures in these UM&R.

3. Tuberculosis must be compulsorily notifiable to State animal health authorities. The State must have an infrastructure, laws, and regulations to make the disease notifiable and to ensure compliance.

4. The State must have an effective veterinary organization and infrastructure. A State must have the legal and financial resources to implement a tuberculosis eradication program and to ensure the compliance with program provisions.

5. The State must supervise boundaries through the use of road check stations, inspection of livestock at concentration points, or by any other means deemed appropriate by the Chief State Animal Health Official, the AVIC, the DTE, and the Regional Tuberculosis Epidemiologist. The State must also maintain clinical and epidemiological surveillance and carry out necessary diagnostic tests.

6. Suspected and/or confirmed tuberculosis cases must be reported to State or Federal animal health officials within 24 hours or by the next business day.

7. If bovine tuberculosis is diagnosed within any State or zone in an animal not specifically covered by this UM&R or the UM&R for captive cervids and a risk assessment conducted by APHIS determines that the outbreak poses a tuberculosis risk to livestock within the State or zone, the State must implement a tuberculosis management plan, approved jointly by the Chief State Animal Health Official and the APHIS Administrator, within 6 months of the diagnosis. The management plan must include provisions for immediate investigation of bovine tuberculosis in animals held for exhibition and in livestock and wildlife; the prevention of the spread of the disease to other animals held for exhibition and to livestock and wildlife; increased surveillance for tuberculosis in livestock, wildlife, and animals held for exhibition; eradication of tuberculosis from individual herds; provisions to reduce the prevalence of tuberculosis in wildlife; and a realistic timeline for the eradication of tuberculosis.

   The plan must also include surveillance of free-ranging cervids at a rate to determine the annual prevalence of tuberculosis in the cervid population within an area or zone that is not classified as Accredited-free. Feeding and baiting of free-ranging cervids should be banned in any county in which *M. bovis* infection has been disclosed in livestock or wildlife. Performance standards, as appropriate, must be implemented to measure yearly progress toward eradication. If a State or zone does not implement such a plan within the required 6 months, the State or zone could lose its current status and could be reclassified to the next lower status.

8. If any livestock other than cattle or bison are included in a newly assembled herd on a premises where a tuberculosis-affected herd has been depopulated, the State or zone must apply the herd test requirements contained in these rules (Part III, K.2). Failure to do so will result in reclassification of the State or zone to the next lower State or zone classification.

B. Surveillance

1. Routine surveillance of cattle and bison in States or zones:

   a. Surveillance of cattle and bison in each State or zone consists of slaughter inspection and tuberculin testing. In each State or zone the total number of adult cattle and bison tested and/or inspected at slaughter should be sufficient to detect a 0.05 percent, or lower, prevalence level among that State's, or zone's cattle and bison with 95 percent confidence. For States or zones with more than 60,000 adult cattle and bison, this standard requires that at least 6,000 adult cattle and bison are documented to have been inspected at slaughter, or tuberculin tested, each year.

   b. Validation of slaughter inspection: All cattle slaughtered in U.S. slaughter plants for wholesale or retail purposes are inspected for evidence of tuberculosis by State Meat Inspection or FSIS personnel. To validate that carcasses are carefully inspected, each slaughter plant should submit suspicious granulomatous lesion(s) from at least one animal in every 2000 adult cattle or bison slaughtered at the facility. The State and/or Federal animal health officials of a State or zone must assess the granuloma submission rates of slaughter plants within the borders of their State or zone. Failure of one or more plants within a State or zone to meet this granuloma submission rate may compromise the effectiveness of tuberculosis surveillance and could jeopardize the tuberculosis status of that State or zone, as well as other States or zones, that export cattle and bison to these plants for slaughter.

   c. Monitoring tuberculin testing: Each State must implement a system to monitor the response rate reported by each individual authorized to conduct official tuberculin tests. A response rate of less than one responder for each progressive specified range of CFT tests conducted as outlined in Appendix C, after 300 animals have been tested, must be addressed and appropriate action taken and documented.

   d. Monitoring slaughter surveillance: The Chief State Animal Health Official and/or AVIC of each State must develop and implement a plan that ensures that each plant slaughtering cattle and/or bison within the State submits suspicious granulomatous lesions for laboratory examination at a rate of one or more for every 2000 adult animals slaughtered; provides estimates of the number and origin of the various classes of cattle and/or bison slaughtered and reports such estimates to the appropriate State or Federal animal health officials on at least a quarterly basis. The plan should provide for a minimum of one visit per calendar quarter to each slaughter plant by State and/or Federal animal health officials. The purpose of the periodic plant visits is to monitor surveillance activities for tuberculosis and other program diseases and to provide assistance to the attending meat inspection personnel and to plant management in resolving any surveillance issues that may arise.

      In States where a significant number or all of the adult slaughter cattle and bison are exported for slaughter in plants located in other States, the Chief State Animal Health Official and/or AVIC must include in their slaughter surveillance plans provisions for determining where such cattle and bison are generally being shipped. The plans should provide for surveying and monitoring the auction markets, commission firms, and dealers within the State that handle adult slaughter cattle and bison to determine where such animals are routinely shipped for slaughter. The Federal and State animal health officials of the States exporting adult cattle and bison for slaughter should establish a working agreement with the Federal and State animal health officials of the States receiving such animals to ensure that the adult cattle and bison received and slaughtered from the exporting State are adequately monitored for bovine tuberculosis.

2. Trace testing:

   a. All cattle and bison in herds of origin and cattle and bison otherwise associated with those showing evidence of tuberculosis at time of slaughter must be quarantined and tested.

   b. The testing schedule of all reactor and suspect herds must be current.

c. All cattle considered to be exposed to *M. bovis* must be traced, quarantined, and handled as outlined in Part III, K.3. Epidemiologic investigation of cattle identified as exposed must be completed within 90 days of initiation of the investigation unless the timelines are extended by the DTE with the concurrence of the Regional Tuberculosis Epidemiologist.

d. Epidemiologic investigation of positive bovine TB cases detected in slaughter cattle must be completed within 90 calendar days of laboratory notification of positive PCR or bacteriological isolation of *M. bovis* unless the timeframes are extended by the DTE with the concurrence of the Regional Tuberculosis Epidemiologist.

C. Annual and/or semiannual reporting

1. Testing and slaughter surveillance—An annual report, including a narrative, for each State or zone classified as Accredited-free or Modified Accredited Advanced, must be submitted, jointly, by the Chief State Animal Health Official and AVIC of each State or zone to VS between October 1 and November 30. Semiannual reports, including narratives, for each State or zone classified as Modified Accredited or Accreditation Preparatory, must be submitted, jointly, by the Chief State Animal Health Official and the AVIC of each State or zone to VS between April 1 and May 31 and between October 1 and November 30. Each report must show the amount of testing and slaughter surveillance that has been conducted. Such surveillance must be in conformance with Part V, B. of this UM&R.

2. Approval and maintenance of status for States or zones classified as Accredited-free or Modified Accredited Advanced requires a review and the approval of each annual report by the Administrator of APHIS. Approval and maintenance of status for States or zones classified as Modified Accredited or Accreditation Preparatory requires a review of each semiannual report and the approval of each semiannual report by the Administrator of APHIS.

D. Specific State or zone status plans

1. Accredited-free State or zone

   a. Accredited-free States or zones have a herd prevalence of zero for bovine tuberculosis in cattle and bison.

   b. If an outbreak of bovine tuberculosis is detected in a State or zone classified as Accredited-free, and the index herd is depopulated and an epidemiologic investigation is completed within 90 days of confirmation of infection in the index herd, and the depopulation(s) and the epidemiologic investigation(s) of affected herds subsequently identified that are associated with the index herd are completed within an additional 120 days, and there is no evidence of the further spread of tuberculosis within the State or zone, then the State or zone may retain its Accredited-free status. The APHIS Administrator may extend the time limits to complete the depopulation and epidemiologic investigation of the index bovine tuberculosis-affected herd and/or the depopulation(s) and epidemiologic investigation(s) of affected herd(s) epidemiologically related to the index herd in specific cases where circumstances warrant such an extension.

   c. If two or more affected herds are detected in an Accredited-free State or zone within a 48-month period, the State or zone will be removed from the list of Accredited-free States or zones and will be reclassified as Modified Accredited Advanced.

2. Modified Accredited Advanced State or zone

   a. Modified Accredited Advanced States or zones must have had a bovine tuberculosis prevalence of less than 0.01 percent of the total number of cattle and bison herds in the State or zone for each of the most recent 2 years. *Except that:* The Administrator, upon review, may allow a State or zone with fewer than 30,000 herds to have up to 3 affected herds for each of the most recent 2 years, depending on the veterinary infrastructure, livestock demographics, and tuberculosis control and eradication measures in the State or zone.

b. To qualify for Accredited-free status, a Modified Accredited Advanced State or zone must demonstrate to the Administrator that it complies with the provisions of these UM&R, has zero percent prevalence of affected cattle and bison herds, and has had no findings of tuberculosis in any cattle or bison in the State or zone for the previous 5 years. *Except that*:

(1) The requirement of freedom from tuberculosis is 2 years from the release from quarantine of the last affected herd in States or zones that were previously Accredited-free. The State or zone must have conducted additional surveillance that demonstrates that other livestock herds and wildlife are not at risk of being infected with tuberculosis as determined by the Administrator based on a risk assessment conducted by APHIS.

(2) The requirement of freedom from tuberculosis can be less than 5 years in all other States or zones if the management of tuberculosis, including surveillance measures conducted in livestock and wildlife, exceeds the provisions of this UM&R as determined by APHIS and approved by the Administrator.

3. Modified Accredited State or zone

a. Modified Accredited States or zones must have had a tuberculosis prevalence of less than 0.1 percent of the total number of cattle and bison herds in the State or zone for the most recent year. *Except that*: The Administrator, upon review, may allow a State or zone with fewer than 10,000 herds to have up to 10 affected herds for the most recent year, depending on the veterinary infrastructure, livestock demographics, and tuberculosis control and eradication measures in the State or zone.

b. To qualify for Modified Accredited Advanced status, a Modified Accredited State or zone must demonstrate to the Administrator that it complies with the provisions of these UM&R and has had a tuberculosis prevalence of less than 0.01 percent of the total number of cattle and bison herds in the State or zone for each of the most recent 2 years. *Except that*: The Administrator, upon review, may allow a State or zone with fewer than 30,000 herds to have up to 3 affected herds for each of the most recent 2 years, depending on the veterinary infrastructure, livestock demographics, and tuberculosis control and eradication measures in the State or zone.

4. Accreditation Preparatory State or zone

a. Accreditation Preparatory States or zones have a tuberculosis prevalence of less than 0.5 percent of the total number of cattle and bison herds in the State or zone.

b. To qualify for Modified Accredited status, an Accreditation Preparatory State or zone must demonstrate to the Administrator that it complies with the provisions of these UM&R and has had a tuberculosis prevalence of less than 0.1 percent of the total number of cattle and bison herds in the State or zone for the most recent year. *Except that*: the Administrator, upon review, may allow a State or zone with fewer than 10,000 herds to have up to 10 affected herds for the most recent year, depending on the veterinary infrastructure, livestock demographics, and tuberculosis control and eradication measures in the State or zone.

5. Nonaccredited State or zone

a. Nonaccredited States or zones have an unknown tuberculosis-affected herd prevalence or a tuberculosis herd prevalence of 0.5 percent or greater.

b. To qualify for Accreditation Preparatory status, the State or zone must demonstrate to the Administrator that it complies with the provisions of these UM&R and has a tuberculosis-affected herd prevalence of less than 0.5 percent of the total number of cattle and bison herds in the State or zone.

APPENDIX A

TUBERCULOSIS TEST REQUIREMENTS FOR VARIOUS CLASSES OF CATTLE AND BISON NOT KNOWN TO BE AFFECTED WITH OR EXPOSED TO TUBERCULOSIS AND FROM NON-ACCREDITED HERDS, OTHER THAN COMMUTER HERDS, BEING MOVED INTERSTATE OR INTERZONE FOR BREEDING OR FEEDING PURPOSES

Status of State or Zone	Breeding Animals	Sexually Intact Heifers for Feeding	Steers and Spayed Heifers for Feeding
Accredited Free	No test required.	No test required.	No test required.
Modified Accredited Advanced	Negative test within 60 days of movement of all animals 18 months of age and older that are included in the movement, or a negative test within 6 months of the movement if such animals were included on a negative test of the herd of origin conducted within 6 months of the movement.	No test required if moved directly to an approved feedlot, or are moved through one approved livestock facility and then directly to an approved feedlot.	No test required.
Modified Accredited	Negative test of the herd of origin (all animals 12 months of age and older) within 1 year of movement plus a negative test on the individual animals to be moved that are 2 months of age and older within 60 days of the movement *except that:* the second test is not required if the animals to be moved that are 2 months of age and older are moved within 60 days following the herd of origin herd test and were included on the herd of origin herd test.	Negative test of all animals included in the movement that are 2 months of age and older within 60 days of the movement directly to an approved feedlot, or through one approved livestock facility and then directly to an approved feedlot.	Negative test within 60 days of movement of all animals included in the movement that are 2 months of age and older.
Accreditation Preparatory	Movement for breeding purposes not permitted unless from an accredited herd. (See Appendix B.)	Negative test of the herd of origin (to include all animals regardless of age) within 1 year of movement and an additional negative test on the individual animals to be moved within 60 days of the movement *except that:* the additional test is not required if the animals are moved within 60 days of the herd of origin herd test and were included on the herd of origin herd test. Movement must be directly to an approved feedlot, or through one approved livestock facility and then directly to an approved feedlot.	Negative test of the herd of origin (to include all animals regardless of age) within 1 year of movement and an additional negative test on the individual animals to be moved within 60 days of the movement *except that:* the additional test is not required if the animals are moved within 60 days of the herd of origin herd test and were included on the herd of origin herd test.
Non-Accredited	Movement for breeding purposes prohibited.	Movement for feeding purposes prohibited.	Movement for feeding purposes prohibited.

APPENDIX B

TUBERCULOSIS TEST REQUIREMENTS FOR VARIOUS CLASSES OF CATTLE AND BISON FROM ACCREDITED HERDS BEING MOVED INTERSTATE OR INTERZONE FOR BREEDING OR FEEDING PURPOSES

Status of State or Zone	Breeding Animals	Sexually Intact Heifers for Feeding	Steers and Spayed Heifers for Feeding
Accredited-Free	No test required.	No test required.	No test required.
Modified Accredited Advanced	No test required if accompanied by a certificate stating the accredited herd completed the testing necessary for accreditation with negative results within 2 years of movement.	Requirements the same as for breeding animals.	Requirements the same as for breeding animals.
Modified Accredited	No test required if accompanied by a certificate stating the accredited herd completed the testing necessary for accreditation with negative results within 1 year of movement.	Requirements the same as for breeding animals.	Requirements the same as for breeding animals.
Accreditation Preparatory	Negative test within 60 days of movement and certificate stating accredited herd completed the testing necessary for accreditation with negative results within 1 year of movement.	Requirements the same as for breeding animals.	Requirements the same as for breeding animals.
Non-Accredited	Movement for breeding purposes prohibited.	Movement for feeding purposes prohibited.	Movement for feeding purposes prohibited.

APPENDIX C

PERFORMANCE STANDARDS FOR CAUDAL FOLD TUBERCULIN TESTING

Each individual authorized to conduct official CFT tests shall be in compliance with these standards for CFT testing if the number of CFT test responders reported is equal to, or greater than, the minimum number of CFT test responders expected for the specified maximum number of CFT tests conducted. For example, if 5 responders have been reported, then the total number of CFT tests conducted should be less than, or equal to, 1050.

The response rates of each individual authorized to conduct official CFT tests shall be calculated for the number of cattle or bison tested for each 1-year period. *Except that:* In the case of authorized individuals who test 300 or less cattle and bison in 1 year, the minimum response rates for the maximum number of CFT tests conducted shall be calculated on a cumulative basis from year to year.

Number of CFT Tests		Expected Minimum Number of CFT Test Responders	Number of CFT Tests		Expected Minimum Number of CFT Test Responders
From	Through		from	through	
0	300	0	3518	3634	26
301	473	1	3635	3750	27
474	630	2	3751	3866	28
631	775	3	3867	3981	29
776	915	4	3982	4095	30
916	1050	5	4096	4209	31
1051	1183	6	4210	4323	32
1184	1315	7	4324	4437	33
1316	1444	8	4438	4551	34
1445	1570	9	4552	4665	35
1571	1695	10	4666	4779	36
1696	1820	11	4780	4893	37
1821	1945	12	4894	5007	38
1946	2070	13	5008	5121	39
2071	2195	14	5122	5235	40
2196	2320	15	5236	5349	41
2321	2445	16	5350	5463	42
2446	2570	17	5464	5577	43
2571	2690	18	5578	5690	44
2691	2810	19	5691	5802	45
2811	2930	20	5803	5914	46
2931	3048	21	5915	6026	47
3049	3166	22	6027	6138	48
3167	3283	23	6139	6250	49
3284	3400	24	6251	6362	50
3401	3517	25	*	*	*

The table above is constructed by assuming that at least 1 percent of non-affected cattle will be false positive on the CFT test. For a given number of responders, the maximum allowable tests are calculated using the cumulative binomial distribution and determining the 5th percentile. For example, 5 or fewer positive test results are expected to occur among less than 5 percent of Accredited Veterinarians who each test, 1050 head of cattle.

* To remain in compliance with these standards, if more than 6,362 CFT tests are conducted prior to the end of 1 year, a minimum of 1 responder must be reported for each additional 110 CFT tests conducted during the remainder of the year.