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Service

# National Animal Identification System (NAIS)

## *“Draft Program Standards”*

*A Discussion Document*

*April 25, 2005*

*While the NAIS is now voluntary, stakeholders recognize that participation by the entire industry will be necessary to achieve a highly successful animal traceback/trace forward system to support animal disease management programs. This document, with industry input, reflects USDA's view on how the NAIS could work if mandatory requirements are established in the future. Public comment and ongoing dialogue with the industry will provide invaluable feedback to the continued development of the NAIS.*

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## INTRODUCTION

Protecting American animal agriculture by safeguarding animal health is vital to the well-being of all U.S. citizens. Healthy and protected agriculture promotes human health; provides wholesome, reliable, and secure food resources; mitigates national economic threats; and enhances a sustainable environment. An efficient and effective animal identification program is essential to achieving this goal.

As part of its ongoing efforts to safeguard animal health, the United States Department of Agriculture (USDA) initiated the implementation of a National Animal Identification System (NAIS) in 2004. The NAIS is the cooperative State-Federal-industry program administered by USDA's Animal and Plant Health Inspection Service (APHIS) for the purpose of tracking all animal movements from birth to slaughter as part of the USDA's National Animal Health Monitoring and Surveillance Program. A main objective of the cooperative NAIS program is to develop and implement a comprehensive national animal tracking system which will enable State and Federal animal health officials to identify both domestic and foreign animal diseases on a real-time basis with the ability to track all exposed and infected animals within 48 hours of initial presumptive positive diagnosis. Another major purpose of the NAIS is to enable State and Federal animal health officials to promptly ascertain animal health status for the purpose of issuing both intrastate and interstate animal health movement certificates.

The NAIS is being developed for use with animals that will benefit from a system that facilitates rapid tracing in the event of a disease concern. Currently, working groups are developing plans for camelids (llamas and alpacas), cattle and bison, cervids (deer and elk), equine, goats, poultry, sheep, and swine.

The ultimate goal of NAIS is to have the capability to identify all animals and premises that had direct contact with a foreign animal disease (FAD) or disease of concern within 48 hours after discovery.

The NAIS is now voluntary, so producers and other stakeholders can participate in the design, development, and testing of the system to ensure that practical solutions evolve. However, to achieve the goal of 48-hour tracebacks, all producers and affected industry segments would have to participate eventually, and there has been support from industry for making the system mandatory. We envision the system becoming mandatory by January 2009. This document presents the USDA's current view of how the NAIS would work when fully implemented. Certain provisions included here may differ from what is currently authorized in the regulations. The development of this document was facilitated by significant industry feedback; however, the document was prepared by USDA, which is responsible for its content. The posting of this document on the Web is intended to provide an opportunity for all stakeholders to offer additional comments and suggestions. Other species-specific information is pending.

The NAIS would be established over time through the integration of these key components:

### **Premises Identification**

An animal's birthplace and all movements are essential facts in tracking animals. Therefore, identifying premises (locations that manage or hold animals) would be the starting point of the NAIS. Each premises would be identified with a unique seven-character identifier, which would be known as a premises identification number (PIN).

### **Animal Identification**

To track animals as they move from premises to premises, there would also have to be a standard way to identify them. Animals would be identified either individually with a unique animal identification number (AIN) or, if they are managed and moved through the production chain as a group, with a group/lot identification number (GIN).

### **Animal Tracking**

As animals move from one premises to another, a few basic pieces of information would be reported to a National Animal Records Repository: the AIN or GIN, the PIN of the receiving location, and the date of the animal or animals' arrival. The ability to achieve the 48-hour traceback objective would be directly affected by the percentage of animal movements that are recordable. Collecting animal movement information would be possibly the most challenging component of the NAIS.

These components are discussed in greater detail in subsequent sections of this document.

DRAFT

## PART I – NAIS DATA STANDARDS FOR KEY COMPONENTS

### I. A. DATA ELEMENTS AND NUMBERING SYSTEMS

To achieve the NAIS' 48-hour traceback objective, the movement of individual animals or "units of animals" would have to be recorded. Standards for certain data elements are essential for the implementation of a successful information system in which data would be shared among States, the Federal government, and certified commercial service providers. Key data elements in the NAIS would include numbering systems for the identification of premises, nonproducer participants (individuals or entities that are not associated with a particular premises but participate in the NAIS by providing products or services or submitting data), individual animals, and groups or lots of animals. Specifications for these key data elements are summarized in the chart below.

Key Data Element Standards				
Data Element	Field Structure	Type	Example	Comments
Premises Identification Number	7	Alphanumeric	A123R69	Right-most character is a check digit <sup>1</sup> based on ISO 7064, Mod 37, 36
Nonproducer Participant Number	7	Alphanumeric	H892345	Same numbering system as Premises Identification Number
Animal Identification Number	15 Total			
	3	Numeric	First	Three digits are the country code (840 = USA) based on ISO 3166
	12	Numeric	123456789012	Animal number. Start number > 2,000,000,000
Group/Lot Identification Number	13 Total			
	7	Alphanumeric	A234567	First seven characters are the entity's Premises Identification Number
	6	Date	100302	Date on which the group/lot was assembled. Format is MMDDYY
<sup>1</sup> See check digit formula in NAIS Technical Supplement.				
<b>Table 1</b>				

#### I. A. 1. Premises

Tracing a subject animal or a group/lot of animals to its origin and determining other potentially exposed premises and animals can only be achieved with a complete record of all locations that manage or hold livestock. Such locations are referred to as "premises." While the diversity of the environments in which we manage livestock makes the definition of such locations quite complex, we offer the following general definition of the term "premises":

A premises is an identifiable physical location that, in the judgment of the State Animal Health Official or Area Veterinarian in Charge and, when appropriate, in consultation with the affected

producer, represents a unique and describable geographic entity where activity affecting the health and/or traceability of animals may occur.

Production locations that have multiple species would have to have one unique PIN in the NAIS. More specific premises definitions would be established to define livestock operations and environments as the NAIS is developed. In addition to farms, ranches, other production units, markets, packing plants, quarantine facilities, ports of entry, veterinary clinics, exhibitions, etc., would also be registered in the national premises system.

### **Premises Identification Number (PIN)**

Identifying these premises with a single and unique number is essential to trace animals potentially exposed to disease. If more than one premises number were to be used for the same location, animals subject to contagious disease could go undetected.

The PIN would be the official premises identification number in the NAIS. The PIN would be nationally unique and have no meaning in itself. The PIN would be associated with an address or legal land description. The field specification for the PIN is:

7 characters (right-most character is a check digit)

Example: A123R69

On November 8, 2004, we published in the *Federal Register* (69 FR 64644-64651, Docket No. 04-052-1) an interim rule recognizing this numbering format for use in officially identifying premises.

#### *I. A. 2. Nonproducer Participants*

A person or entity that engages in a designated role in the NAIS but is not associated with a specific premises would be designated as a nonproducer participant. These nonproducer participants would perform a number of functions, including, but not limited to, manufacturing and distributing official identification tags and submitting information to designated NAIS databases. USDA/APHIS will establish application and enrollment procedures for nonproducer participants and would be responsible for the allocation of unique nonproducer participant numbers to such individuals or entities.

### **Nonproducer Participant Number**

Data supplied to NAIS databases by a nonproducer participant would be associated with that person or entity's nonproducer participant number so that proper data controls and integrity measures could be maintained. The enrollment of nonproducer participants in the NAIS would be administered through the State/tribe Premises Registration Systems (see I.B.1) in the location in which the individual or entity maintains its primary business office. In other words, a nonproducer participant would obtain a nonproducer participant number through the Premises Registration System, which would be administered by the State/tribe.

The nonproducer participant number would be generated through the same computer program that would generate the PIN. The field specification for the nonproducer participant number is:

7 characters (right-most character is a check digit)

Example: H892345

### **Nonproducer Participant Type Codes**

The types of entities and individuals listed in the following table could participate in the NAIS and would be assigned nonproducer participant type codes. These codes would be used to establish authorization levels for the appropriate databases.

Nonproducer Participants – Type Codes		
Name	Nonproducer Participant Type	Role and/or Responsibility
Animal Health Official – Government	1	
Animal Health Official – Accredited Veterinarians	2	
AIN Tag Managers	3	An entity authorized by APHIS to distribute AIN tags to a premises. The AIN Tag Manager agrees to validate the PIN of the receiving operation and report the AINs distributed to that receiving operation to the National Premises Information Repository.
AIN Tag Manufacturers	4	A company that is authorized by APHIS to receive AINs and produce AIN tags.
AIN Tag Distributors	5	A person or entity that distributes and/or takes orders for AIN tags. The distributor has an agreement with an AIN Tag Manager who must report distribution information to the National Animal Records Repository.
Laboratories	6	Diagnostic laboratories that submit data to the national databases
Order Buyers/Dealers	7	Individuals that buy or sell livestock or act as agents for a buyer or seller of livestock. They will have their non-producer participant number recorded in lieu of a premises number.
Service Providers	8	Submit animal records to the National Animal Identification Database
Identification Services/Sites	9	Identify animals using the AIN on behalf of producer and submit records to the National Records Repository, according to communication standards prescribed in the Technical Supplement

**Table 2**

### *I. A. 3. Animal Identification*

Two types or levels of animal identification are necessary to support animal disease management programs: Individual animal and “group/lot” identification. Individual animals may be identified with unique numbers or with premises numbers. Unique individual animal identification is needed for tracking animals that are destined to be commingled with animals outside the production system in which they were born as they move through the production chain. While certain traceback functions can be achieved with premises identification alone, premises identification cannot be used to record an individual animal’s movement through multiple marketing and commingling points. In such instances, individual animal identification is necessary. Individual animals would be identified in the NAIS by means of the AIN.

Group/lot identification can be used in species where groups of animals are assembled from within the same production system and are tracked by recording group movements and maintaining required production record elements. In the event animals identified through group/lot identification are to be commingled with animals outside the production system, unique individual animal identification would become necessary. In the NAIS, groups or lots of animals would be identified by means of the GIN.

### **Animal Identification Numbers (AIN)**

Current numbering systems considered official for the interstate movement of livestock include:

- USDA/APHIS uniform State series code
- Breed registration numbers
- Premises identification used in combination with unique herd management identification

The standard for the single national numbering system would:

- Be compatible with national numbering systems already established in other countries
- Avoid duplication of any existing numbers

The November 2004 interim rule referred to earlier also recognized the AIN as an official number for use in identifying individual animals. Over time, the AIN would become the sole national numbering system used when unique individual animal identification is required.

The field specification for the AIN is:

15 digits (the first three digits would be the national code defined by ISO 3166 [USA is 840]; the remaining 12 digits would comprise the nationally unique individual animal number)

Example: 840123456789012

### **Official Identification Devices and Methods**

Individual animals or groups of animals would be identified in the NAIS using devices or methods approved by the USDA/APHIS Administrator, including, but not limited to, official tags, tattoos, radio frequency identification, and registered brands when accompanied by a certificate of inspection from a recognized brand inspection authority. Animals identified as individuals would have different requirements from animals identified by group or lot. The specifications would be defined through species-specific standards, which are provided in the species-specific section (Part IV) of this document.

Official identification devices would be distributed to be readily available for producers to purchase either through direct delivery, drop shipment, or through the retail sector.

While the NAIS would be technology neutral, AIN tags would become the de-facto standard for certain species when visual, unique individual animal identification is necessary. The following chart lists what we envision would be the minimum standards for the AIN tag. Certain species could incorporate other technologies as part of the AIN tag. For example, the cattle industry has established RFID eartags as its preferred form of identification to meet these minimum standards.



AIN Tags
Standards for AIN Tags
<ul style="list-style-type: none"> <li>• The tag must bear the entire 15-digit number.</li> <li>• The tag must be designed for one-time use (tamper evident).</li> <li>• The tag may not be readily altered or otherwise tampered with.</li> <li>• The national identification number must be easily and reliably readable.</li> <li>• The tag must have the US Shield imprinted.</li> </ul>
<b>Table 3</b>

### Prohibitions on Tampering with or Removing Official Identification Devices

USDA/APHIS would promulgate regulations, as appropriate and/or necessary, to prohibit any person from:

- Removing an official identification device or causing the removal of one unless the animal is terminated, except in cases when an AIN has become illegible or the device malfunctions
- Causing the application of an AIN tag to an animal that is currently carrying an AIN tag, unless that same AIN is imprinted on the second device
- Altering an AIN tag to change its number, or to make the number unreadable
- Selling or providing an identification device bearing the USDA Shield unless so authorized
- Manufacturing, selling, or providing an identification device that so closely resembles an approved device that it is likely to be mistaken for official identification.

### Group/Lot Identification Numbers (GIN)

Group/lot identification is used in industries where production practices involve management of animals by groups, i.e., animals move in groups through the production chain. In such cases, there is no traceback advantage to individual identification. Instead, groups of animals can be tracked using appropriate group identifiers and production records.

In the NAIS, an animal production system would be able to use group/lot identification if the producer is able to demonstrate, through group identification and production records, that 48-hour traceback can be accomplished to all premises with animals potentially exposed to disease. Specific requirements for group/lot identification would vary by species.

A unique and standardized number would be necessary to track groups of animals in the national system. The November 2004 interim rule also established the GIN as an official number for the identification of groups or lots of animals. The field specification for the GIN is as follows:

13 characters, combining the 7-digit PIN of the premises where the group was assembled and the date (6 digits) on which the group was assembled (mmddyy)

Example: A234567100302 (group assembled on October 3, 2002)

If more than one group of animals were to be assembled on a particular day at a given premises, the animals would still be considered a single group for the purpose of assigning a GIN.

## I. B. INFORMATION SYSTEM

The primary information system components of NAIS would include the National Premises System and National Animal Identification and Tracking System. These systems would be integral components of the USDA/APHIS National Animal Health Surveillance System. To ensure that animal health officials would have immediate, reliable, and uninterrupted access to essential NAIS information in the event of a disease concern, certain basic data would be maintained at the Federal level (see Tables 5 and 6). Accordingly, the two main NAIS information repositories, the National Premises Information Repository and the National Animal Records Repository, would be maintained and managed by USDA/APHIS. These information repositories would also be integrated with current information systems already established for animal disease control, monitoring, surveillance, and eradication programs (e.g., the Emergency Management Response System, the Generic Data Base, and the National Animal Health Laboratory Network). The NAIS data systems would also need to be well integrated with other systems as they are developed and implemented (e.g., the Interstate Certificate of Veterinary Inspection System).

The overall system would allow for the identification of each premises and the recording and reporting of animal identification and animal movement data. Additionally, the system would associate or link the animal identification data to each premises where the animal or group was located and the specific dates on which the animal(s) was at the premises. Only information essential to the enhancement of animal disease surveillance and monitoring would be stored in federally managed database under the NAIS.

Premises registration systems and animal identification and tracking systems maintained by the States or regional alliances (or contracted through a third party) would be an integral part of the overall NAIS information infrastructure. These systems would be maintained and operated by the States or regional alliances or third parties, and essential data would be “pushed” from them to the national repositories. Once participating State/regional and third-party systems have been evaluated for data compliance, USDA/APHIS would support the establishment of interfaces between these systems and the national repositories. The State/regional systems or third-party systems would be able to collect and maintain more information than is required for NAIS, but only the Federally required data would need to be sent to the national repositories. NAIS data would be kept confidential to the extent allowed by law, and routine access would be restricted to State and Federal animal health officials when information is required to perform their responsibilities for maintaining the health of the U.S. herd.

Event(s) that would trigger State or Federal access to the data management system would include the following:

1. A confirmed positive test for List A diseases
2. An animal disease emergency, as determined by the Secretary of Agriculture
3. The need to conduct a traceback to determine the origin of infection for a program disease (brucellosis, tuberculosis, etc.)
4. The need to conduct surveillance for another domestic or emerging disease

### *I. B. 1. National Premises System*

The National Premises System would include the Premises Number Allocator, the Premises Registration Systems, and the National Premises Information Repository.

#### **Premises Number Allocator**

The uniqueness of each PIN would be achieved through the Premises Number Allocator with which the Premises Registration Systems would interface when administering the registration of premises. Assigning premises numbers to a valid address or legal land description would help avoid having multiple numbers assigned to the same operation, regardless of species. The allocator would be maintained by USDA/APHIS.

### Premises Registration Systems

The Premises Registration Systems (databases) would provide for the administration of premises enrollments according to the national requirements. The States and tribes that would be responsible for administering the registration of premises within their geographic areas, or would be jointly responsible for administering the registration of premises in boundary areas, could use either a standardized Web-based premises registration system provided by USDA/APHIS or a compliant registration system developed by the States or tribes or by third parties through contractual arrangements and evaluated by USDA/APHIS for compliance with NAIS data standards.

States and tribes could establish various means for collecting and entering the data into the system they elect to operate. These cooperative efforts could involve industry organizations, brand inspection entities, third party service providers, etc. While each State or tribe would be required to adhere to the national standards and requirements, other functionality and data collection would be at the discretion of the State or tribe. Compatibility between the Premises Registration Systems and the National Premises Information Repository would be achieved through adherence to NAIS data standards. At a minimum, States and tribes would have to collect and maintain the information defined in Table 4 below.

A location would maintain the same PIN when sold intact. The States or tribes would maintain the historic data for 20 years. This would provide animal health officials with the proper contact reference when the current contact person was not associated with the premises during the period being researched in a traceback situation.

States/tribes would submit data on all premises to the National Premises Information Repository listed in Table 5 using the file transfer protocols provided in the NAIS IT Supplement. The transmission of data would include new and revised premises records daily and monthly “master” updates. The “master” updates would contain all records from the State/tribe premises database. Premises information would be kept confidential to the extent allowable by law, and only partial data would be routinely available to State or Federal animal health officials.

Premises Registration Systems - Data Elements		
Field Name	Type	Length
Premises Identification Number	Alphanumeric	7
Name of Entity	Alphanumeric	30
Owner or Appropriate Contact Person*	Alphanumeric	30
Street Address	Alphanumeric	30
City	Alphanumeric	20
State	Alpha	2
Zip/Postal Code	Numeric	9
Contact Phone Number	Numeric	15
Operation Type	Character	1
Date Activated	Date (YYYYMMDD)	8
Date Retired	Date (YYYYMMDD)	8
Reason Retired	Character	1
Historic Data**		
Previous Contact Person	Alphanumeric	30
Previous Contact Person Phone	Numeric	15
Previous Contact Person - Start Date	Date (YYYYMMDD)	8
Previous Contact Person - End Date	Date (YYYYMMDD)	8
GPS		
Longitude	Numeric (6 decimals)	11
Latitude	Numeric (6 decimals)	11
Alternative Phone Numbers **	Numeric	15
* The contact person should be the person with whom the animal health official is to communicate when performing a traceback (as determined by the entity).		
** Requires facility to store multiple records.		
<b>Table 4</b>		

### National Premises Information Repository

The National Premises Information Repository, maintained by USDA/APHIS, would centralize data from the Standardized and Compliant Premises Registration Systems. A real-time subset of all Premises Registration Systems will be necessary to support the national infrastructure. For example, the National Premises Information Repository will support the allocation of AINs to a premises. AIN Distributors would be able to verify in the National Premises Information Repository that a producer has a valid PIN before distributing AINs to that producer.

The following chart defines the fields (data elements) that would be required by the National Premises Information Repository.

National Premises Information Repository - Data Elements		
Field Name	Type	Length
Premises Identification Number	Alphanumeric	7
Name of Entity	Alphanumeric	30
Owner or Appropriate Contact Person*	Alphanumeric	30
Street Address	Alphanumeric	30
City	Alphanumeric	20
State	Alpha	2
Zip/Postal Code	Numeric	9
Contact Phone Number	Numeric	15
Operation Type	Character	1
Date Activated	Date (YYYYMMDD)	8
Date Retired	Date (YYYYMMDD)	8
Reason Retired	Character	1
* The contact person should be the person with whom the animal health official is to communicate when performing a traceback (as determined by the entity).		
<b>Table 5</b>		

### *I. B. 2. National Animal Identification and Tracking System*

The National Animal Identification and Tracking System would include the AIN Allocator, Animal Identification and Tracking Systems, and the National Animal Records Repository.

#### **AIN Allocator**

USDA/APHIS would administer the AIN Allocator that would assign AINs to AIN tag manufacturers. Only authorized AIN tag manufacturers would have access to the AIN Allocator. USDA/APHIS would maintain the information on authorized AIN tag manufacturers and records of all animal numbers allocated to each manufacturer.

#### **Animal Identification and Tracking Systems**

States/tribes would administer their Animal Identification and Tracking System. States/tribes could establish agreements to administer their systems on a regional basis. USDA/APHIS would provide a Standardized Animal Identification and Tracking System (SAITS) that States could elect to use. The SAITS would be housed within a technology center maintained by or contracted through USDA/APHIS to operate the system. Each State, tribe, or region using the system would have a secured, partitioned area on the database that it administers through the Internet.

States/tribes could also elect to have their information administered through their own system or through systems provided by third parties. USDA/APHIS would designate systems that meet the data standards

and communication security requirements as a Compliant Animal Identification and Tracking System (CAITS).

The data submitted to the National Animal Records Repository would be consistent from both the standardized and compliant systems. (See file format and communication protocol in NAIS IT Supplement.)

### National Animal Records Repository

USDA/APHIS would administer the National Animal Records Repository (NARR), a centralized database maintained and integrated within the USDA/APHIS National Animal Health Surveillance System. Records would be received from the Standardized and Compliant Animal Identification and Tracking Systems, as well as direct submissions. Tables 6 and 8 below list the fields that would be maintained for individual animals and group/lots of animals in the NARR. Tables 7 through 9 contain individual animal event codes, group/lot data elements, and group/lot event codes, respectively.

National Animal Records Repository – Individual Animal Data Elements				
Field Description	Data Type	Size	Reqd.	Example
Event Type Code	Numeric	2	Y	1 (see following event code table)
Sighting/Reporting Premises Identification	Character	7	Y	
Source/Destination Premises Identification	Character	7	N	
Event Date & Time	Numeric	12	Y	YYYYMMDDHHMM 200308011223
Animal Identification number	Numeric	15	Y *	AIN with leading "840"
Species	Character	3	N	
Identification Electronically Read	Boolean	1	Y	0 (False default) / 1 (True)
Animal Date of Birth	Character	8	N	YYYYMMDD 20020101
Age of Animal	Character	3	N	(M)onth, (D)ay, (Y)ear e.g. M11 (Zero fill if less than 10)
Gender	Character	1	N	(M)ale, (F)emale, (C)astrated/neutered male, (S)payed/neutered female
Breed of Animal	Character	2	N	See document Breed codes US and Can1.pdf
Remarks	Character	50	N	Description/other comments (may include brand information)
Status	Character	1	N	(C)orrection
Alternate Animal ID 1	Character	17	N *	Alternate official identification number if 840 AIN not available, Lot identification number if animal has AIN number and was moved out of a lot, old AIN number if tag replaced
Alternate Animal ID Type 1	Character	1	N	(A) AIN with leading USA, (U)SDA eartag, (R) AIN with lead manufacture code, (B)reed registry number, (G)GIN,

				(T)attoo, required if alternate identification (field 15) is provided, R(E)placement AIN number if event code 6 used
Alternate Animal ID 2	Character	17	N *	Second alternate official Identification number if 840 AIN not available, or GIN if animal has AIN and was moved out of a lot
Alternate Animal ID Type 2	Character	1	N	(A) AIN with leading USA, (U)SDA eartag, (R) AIN with lead manufacture code, (B)reed registry number, (L)ot number, (T)attoo, required if alternate identification (field 17) is provided
* At least one official ID required				
<b>Table 6</b>				

### Animal Event Codes

Animal Event Codes	
Event Code #	Description
1	AIN tag distributed – AIN is distributed to a premises or Nonproducer Participant (tags transferred to another entity in the distribution chain).
2	Tag applied – AIN tag is applied to an animal
3	Moved in – Animal is moved into a premises
4	Moved out – Animal is moved out of a premises
5	Lost Tag – New tag is applied to an animal that lost a tag and previous AIN is unknown
6	Replaced Tag or Re-Tagged – New tag is applied to an animal that lost a tag and previous AIN is known
7	Imported – Animal is imported into the U.S.
8	Exported – Animal is exported out of the U.S.
9	Sighting – Animal has a confirmed sighting at a location, no movement has occurred. (Ex: veterinarian sighting)
10	Harvested – Animal was terminated at an abattoir
11	Died – Animal died of natural causes or euthanized at the farm/ranch
12	Tag retired – Tag retired by producer, packing house, etc.
13	Animal Missing (lost stolen, etc)
14	ICVI – Certificate of veterinary inspection
<b>Table 7</b>	



## Group/Lot Data Elements

National Animal Records Repository - Group/Lot Data Elements				
Field Description	Data Type	Size	Reqd.	Example
Event Type Code	Numeric	2	Y	1 ( <i>see following event code table</i> )
Premises Identification	Character	7	Y	(Required when event code is 2, 3, or 4)
Event Date & Time	Numeric	12	Y	YYYYMMDDHHMM 200308011223
Group/Lot Identification Number (GIN)	Character	13	Y	GIN is composed of premises ID number and date the lot was established
G/L Subset Identifier	Character	30	N	Used to identify subset such as a barn
Group Type	Character	1	Y	(S)tatic, (D)ynamic
Species	Character	3	Y	
Event Remark	Character	50	N	
Status	Character	1	N	(C)orrection

**Table 8**

## Group/Lot Event Codes

Group/Lot Event Codes	
Event Code #	Description
1	Begin Group/Lot, Group/Lot of animals was established at a premises
2	Moved Group/Lot in, Group/Lot of animals was moved into a premises
3	Moved Group/Lot out, Group/Lot of animals moved out of a premises
4	Lot has a confirmed sighting at a location, no movement has occurred (i.e. vet sighting)
5	End Group/Lot, Group/Lot inventory is zero

**Table 9**



### List Codes

Certain fields are predefined for list standards that would allow the data to be selected and stored consistently. Such list standards are presented below.

Species			
Code	Description	Code	Description
AQU	Aquaculture	CER	Cervids
CLM	Clams	DEE	Deer
CRA	Crawfish	ELK	Elk
CTF	Catfish	EQU	Equine (Horses) <sup>1</sup>
MSL	Mussels	OVI	Ovine (Sheep)
OYS	Oysters	POR	Porcine (Swine)
SAL	Salmon	POU	Poultry
SBA	Striped Bass	CHI	Chickens
SHR	Shrimp	DUC	Ducks
SLP	Scallops	GEE	Geese
TIL	Tilapia	GUI	Guineas
TRO	Trout	PGN	Pigeon
BOV	Bovine (Bison and Cattle)	PHE	Pheasants
CAM	Camelid (Alpaca and Llama)	QUA	Quail
CAP	Caprine (Goats)	TUR	Turkeys

<sup>1</sup> Equine industry will expand as necessary

Table 10

Operation Type			
Code	Description	Code	Description
B	Port of Entry	P	Production Unit <sup>1</sup>
C	Clinic	Q	Quarantine Facility
E	Exhibition	R	Rendering
L	Laboratory	S	Abattoir
M	Market/Collection Point	T	Tagging Site
N	Nonproducer Participant		

<sup>1</sup> Includes Hunt Ranches, etc.

Table 11

Reason Premises Retired	
Code	Description
D	Developed (Operation terminated resulting from commercial development)
E	Error (Reported in error)
M	Merged
O	Sold or Transferred
S	Split

**Table 12**

Animal Gender	
Code	Description
M	Male
F	Female
C	Neutered / castrated male
S	Neutered / spayed female
X	Mixed (used only in groups)

**Table 13**

## PART II – HOW THE SYSTEM WOULD WORK

### II. A. ROLES AND RESPONSIBILITIES

A key to the functioning of the NAIS would be the sharing of administrative responsibilities by State and tribal governments, Federal agencies, producers, and nonproducer participants. Part II of this document provides an overview of how the various sectors would carry out their responsibilities, as well as flowcharts detailing the premises registration, tag distribution, and animal tracking processes.

#### II. A. 1. USDA/APHIS, States and Tribes

USDA/APHIS would execute cooperative agreements and/or Memoranda of Understanding (MOU) with the animal health authority of States or tribes to administer the NAIS. State/tribe and USDA/APHIS administrative responsibilities are summarized in the following table.

Responsibilities of States/Tribes and USDA	
States/Tribes	USDA APHIS
<ul style="list-style-type: none"> <li>• Register/identify premises within their geographic area</li> <li>• Maintain data required by the Premises Registration System</li> <li>• Submit premises data to National Premises Information Repository</li> <li>• Recognize the use of the AIN as an official identification number within their State/regions</li> <li>• Recognize the use of the GIN as an official identification number within their State/regions</li> <li>• Administer intrastate movements</li> <li>• Administer the enrollment of Nonproducer Participants located in their area</li> <li>• Approve Tagging Sites/Services</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Premises Number Allocator</li> <li>• Provide a Standardized Premises Registration System and Standardized Animal Identification and Tracking System</li> <li>• Evaluate other Premises Registration and Animal Identification and Tracking Systems developed by States and/or third parties for compliancy</li> <li>• Administer National Premises Information Repository</li> <li>• Administer allocation of AINs and GINs</li> <li>• Administer National Animal Records Repository</li> <li>• Approves AIN Tag Manufacturers and administers the authorization of AIN Tag Managers</li> </ul>

**Table 14**

#### II. A. 2. Other Stakeholders

##### Producers

**Premises Registration:** The owner of the premises, or person designated by the owner of the premises, would register his or her location(s) and would have to keep the required information current. All individuals who own or lease livestock would be responsible for having a PIN for the holding location(s) of their livestock.

Owners with multiple production units and/or holding units would consult with their State/tribe Animal Health Official or Area Veterinarian in Charge (AVIC) to determine if multiple PINs are required.

**Animal Identification:** The owner of the animal (or lessee of a leased animal) at its current premises would be solely responsible for having each animal or lot of animals properly identified when an event

“triggers” the identification requirement. The method of identification would be species specific. Part III of this document contains species-specific procedures and requirements.

*Animal Movements:* The reporting of animal movements would be the sole responsibility of the receiving premises or person responsible for the animals at the receiving premises. The receiving premises are the premises to which animals are moved and at which a responsible party (not necessarily the buyer) would be responsible for reporting that identified animals have arrived.

### **Market Operators**

Market operators would submit a record of each animal or group of animals that enters their facility to the National Animal Records Repository or appropriate State/tribe Animal Identification and Tracking System in accordance with communication standards prescribed in the Technical Supplement. Records would have to be submitted within 24 hours of the animals’ departure from the facility or by the close of the next business day.

### **Abattoirs - Processing Plants**

Abattoirs, or processing plant operators, would submit a record of each animal or group of animals that entered their facility to the National Animal Records Repository or appropriate State/tribe Animal Identification and Tracking System. The processing plant would submit the data within 24 hours of the animals’ slaughter at their facility in accordance with communication standards prescribed in the Technical Supplement.

### **AIN Tag Manufacturers**

AIN Tag Manufacturers are companies that would be authorized by USDA/APHIS to manufacture approved identification devices and would be responsible for the overall production of the official identification devices that contain AIN. AIN Tag Manufacturers could also be AIN Tag Managers.

AIN Tag Manufacturers would have to:

- Only produce approved AIN Tags with the AINs that have been allocated to them by USDA/APHIS.
- Demonstrate a functioning computerized system, compatible with NAIS standards, that ensures the uniqueness of the AINs allocated to them;
- Maintain a database of the manufacturer product code for all devices that contain an AIN;
- Furnish official identification devices to AIN Tag Managers and Distributors as prescribed by the policy on official identification devices; and
- Have a means to support the distribution of AIN devices, either by being AIN Tag Managers themselves or through third-party distributors.

### **AIN Tag Managers**

AIN Tag Managers are individuals, organizations, or companies that, either directly or working in concert with an AIN Tag Distributor, would provide AIN Tags to a premises that manages or holds livestock. The AIN Tag Manager would have an AIN Tag distribution agreement with an AIN Tag Manufacturer(s). As an authorized AIN Tag Manager, the individual or firm would agree to:

- Validate the PINs of the premises that are to receive AIN Tags
- Submit a record of all AINs provided to a premises to the National Animal Records Repository in accordance with communication standards prescribed in the Technical Supplement
- Educate customers on the proper use of official identification devices

### **AIN Tag Distributors**

AIN Tag Distributors would have marketing agreements with AIN Tag Managers. The AIN Tag Distributor would provide AIN Tags to a producer with a valid PIN. Through a documented procedure, The AIN Tag Distributor would have the record of distribution submitted to the National Premises Repository by the AIN Tag Manager with whom the Distributor had entered into a marketing agreement.

### **Tagging Sites**

Tagging sites are authorized premises that would receive animals that were not identified with approved tags. Individuals at the tagging site would apply the AIN tags to the animals on behalf of the owners or persons having possession, care, or control of the animals when they are brought to the site. Individuals at the tagging site would have to:

- Obtain AIN Tags from an AIN Tag Manager or Distributor or become AIN Managers themselves;
- Validate the PIN of the premises at which the animals had been located prior to arriving at the tagging site;
- Tag the animals with approved devices prior to commingling the animals with animals from other premises; and
- Report the AIN of the approved tags that are applied to the animals, the date applied, and the PIN of each animal tagged by the close of the next business day, in accordance with communication standards prescribed in the Technical Supplement.

In the event the person responsible for the animals did not have a PIN, the tagging site would record the necessary information on the form provided by the state animal health authority, and submit the information according to the established protocol with the State/tribe.

### **Tagging Services**

Tagging services would tag animals at the animals' premises prior to their leaving. Like tagging sites, the tagging service would obtain AIN tags, and when the animals were tagged, would validate the PIN of the premises where the animals were located. The tagging service would report the AINs of each animal tagged at the premises to the National Animal Records Repository, in accordance with communication standards prescribed in the Technical Supplement, within 24 hours or at the close of the next business day.

### **Summary**

The chart on the following pages describes responsibilities producers and other stakeholders in the cattle and bison industries would have for NAIS-related activities. Information for goats and sheep, pigs, and horses is currently being developed by those industries.

Activity	Cattle/Bison	Goats	Sheep	Pigs	Horses
Registration of Premises	Owner of premises *Person responsible for cattle on grazing scenarios				
Responsible party for the identification of the animals	Owner of animals at current premises (lessee of a leased animal)				
When is the animal to be officially identified	When an event triggers the need for official ID Exception: Tagging sites or when a condition of trade				
What animals must be identified	All classes and types				
Events that “trigger” the requirement of official identification	Change of ownership (even at same premises) Interstate movement Multiple owners commingle their cattle.				
ID Method to be used	AIN/RF Tag Left ear ISO 11784/85				
Reporting of Movements – who is responsible	Person responsible for the animals at the receiving premises Markets, processing plants are “receiving” premises Optional reporting for ship-from premises				

Who reports Interstate Movement	Accredited Veterinarian when Interstate Certificate of Veterinary Inspection is required Receiving premises uses e-permit system when no health certificate is required				
Time frame requirement for reporting movements	Within 24 hours or the close of the next business day				

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## II. B. ILLUSTRATIONS AND EXPLANATIONS OF BASIC PROCESSES

### II. B. 1. Premises Registration

The following flow chart provides an overview of how the premises registration system would be administered.

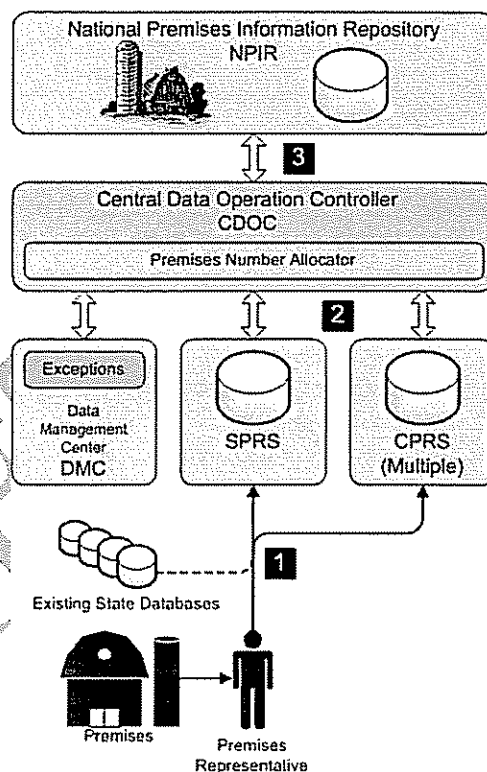
1. The premises identification data would be administered in a Premises Registration System used by the State/tribe. In some States/reservations, the producer, or agent for the producer, would provide the information. Additionally the State/tribe could “merge” or integrate data from existing databases or use a combination of both methods to obtain the premises information.

2. The Premises Registration System being used by the State/tribe, through a machine-to-machine interface, would pass the address (or land description if no address exists for the premises) to the Premises Number Allocator. The Premises Number Allocator would determine if the address is valid and if the address has previously been allocated a premises ID number.

When the address is valid and has no premises ID number on record, the Premises Number Allocator would return the next available sequential premises ID number to the Premises Registration System. If a premises ID number is on record for the premises being processed, the Premises Number Allocator would return the premises ID number already on file for that premises. In cases where the premises does not have an address, an exception process would be established to assign a premises ID number to the appropriate locations of the livestock enterprise.

The Premises Registration System would complete the identification/enrollment process for the premises by collecting data elements required by the National Premises Information Repository (see table 5 above).

3. The Premises Registration System would update the National Premises Information Repository according to prescribed update procedures. This would include updates of new and revised premises records daily and monthly “master” updates. The “master” updates would contain all records from each Premises Registration System.



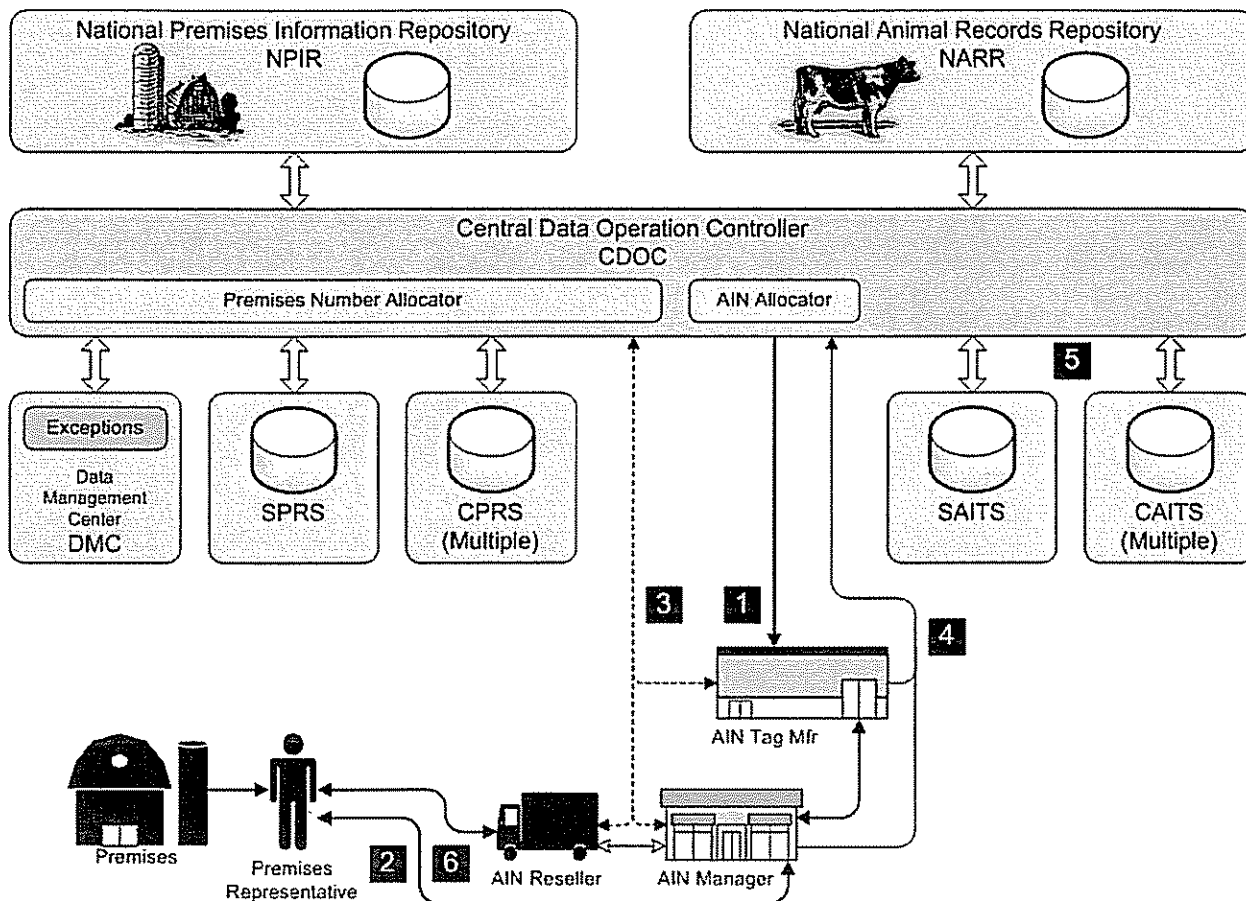
*The Standardized Premises Registration System is housed at a single technology center and is operated by USDA/APHIS.*



## II. B. 2. Animal Identification and Tracking

### AIN Tag Distribution

1. The AIN Manufacturer would access the AIN Allocator through the AIN Management System for a pre-approved volume of AINs or on an “as needed” basis. The system would maintain a record of the numbers and the date the numbers are released to each AIN Tag Manufacturer. AIN Tag Manufacturers would produce AIN tags for their supply distribution chain or would provide the AIN tags to AIN Tag Managers as the tags are ordered.



Note: AIN Tag Manufacturers may also be AIN Tag Managers.

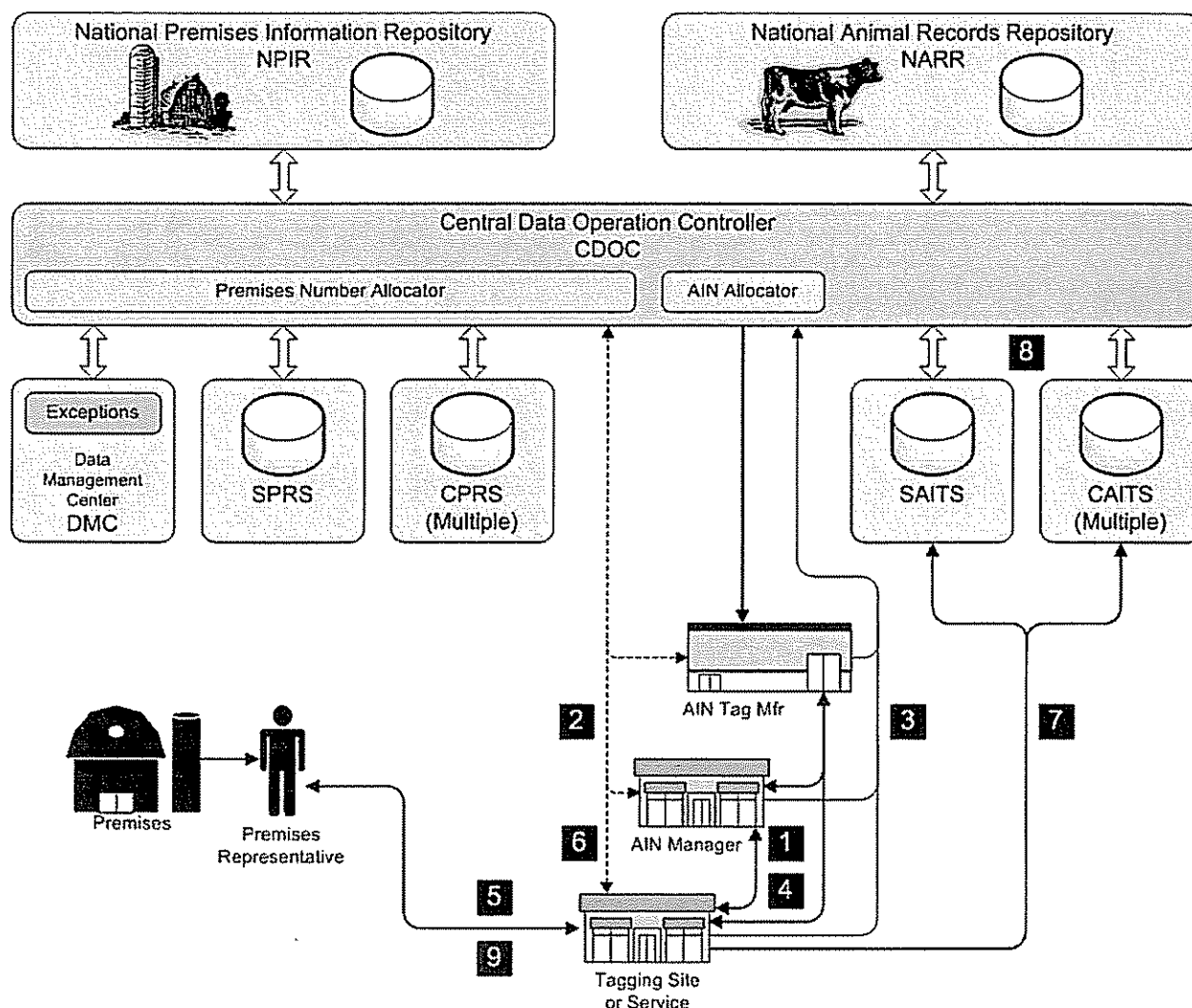
2. The Premises representative would request AIN tags from an AIN Tag Manager or Reseller and provide that person or entity with their PIN.
3. The AIN Tag Manager or Reseller, through authorized access to the National Premises Information Repository, would validate the reported PIN of the producer. If the PIN is correct, the AIN Tag Manager or Distributor would provide AIN tags to the producer/premises.

*Note: AIN tags could only be provided to entities that have a valid PIN.*

4. The AIN Tag Manager (or Reseller) would report the AINs printed on the AIN Tags to the National Animal Records Repository.
5. The report of AINs would be shared with the appropriate State/tribe Animal Identification and tracking System.

6. The AIN tags would be shipped or delivered to the premises (or sold at the retail outlet to the representative of the premises).

### AIN Tag Distribution – Tagging Services



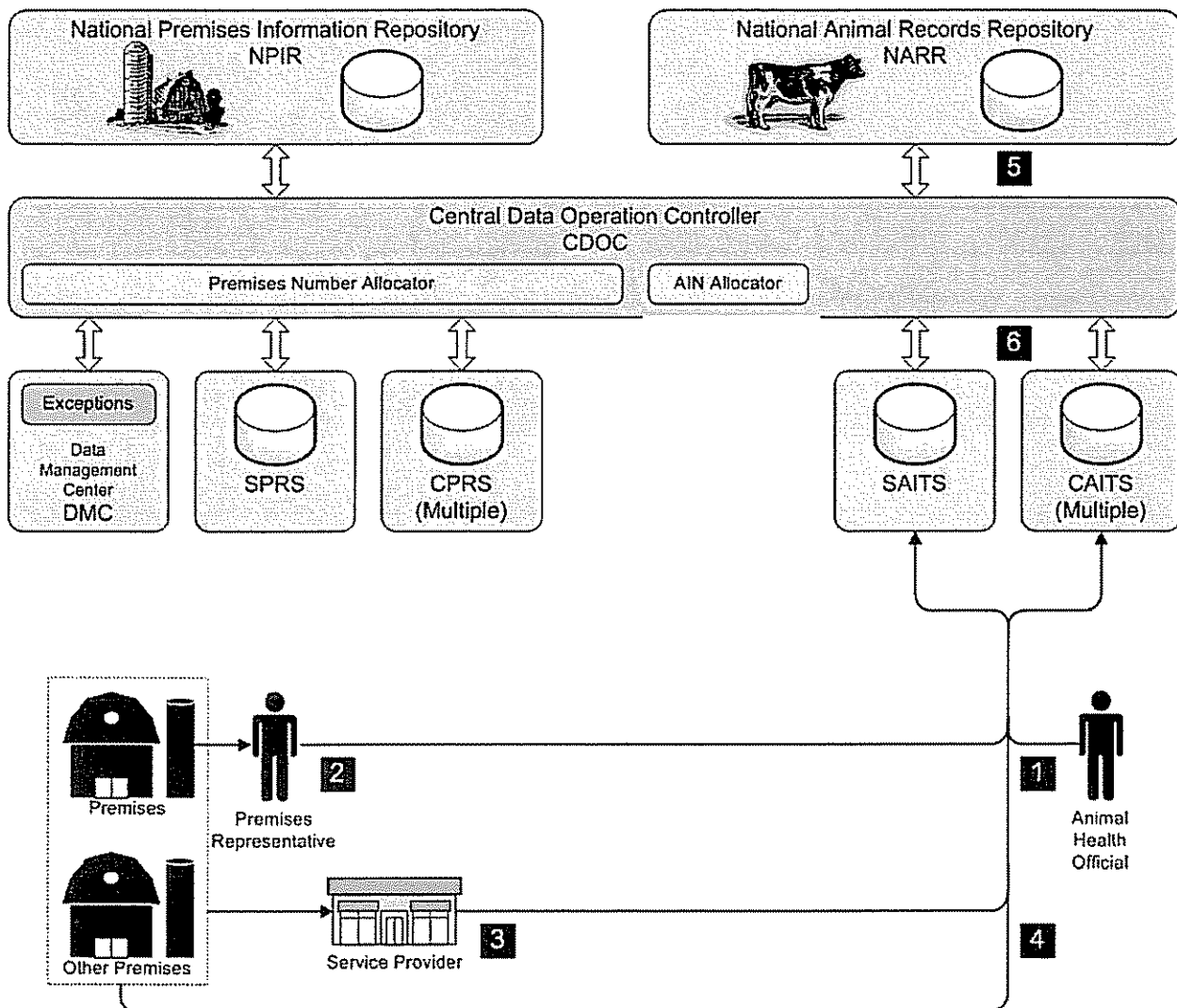
1. The tagging site/service would request AIN tags from the AIN Tag Manager or Distributor.
2. The AIN Tag Manager or Distributor would confirm that the request came from an authorized tagging service and would validate the service's nonproducer participant number.
3. The AINs provided to the tagging service would be reported to the National Animal Records Repository by the AIN Tag Manager.
4. The AIN Tags would be provided to the tagging service.
5. A producer would request tagging services.
6. The PIN would be validated or established.
7. After the animals are tagged, the AIN numbers would be reported to the State/tribe Animal Identification and Tracking System or the National Animal Records Repository.
8. The report of AINs would be shared between the National Animal Records Repository and the appropriate State/tribe Animal Identification and Tracking System.

- The record of AINs would be provided to the producer that requested the service.

*Note: A PIN could be established after tagging the animals in cases where the movement of the animals does not permit the establishment or validation of the PIN prior to tagging.*

**Reporting Animal Movement/Sightings**

Records that provide animal location and movements would be received from various sectors of the industry (producers, animal health officials, service providers, markets, and slaughter plants). Such input would be obtained through the integration of the AIN/Animal Transaction file.



- Using standard operating procedures, States/tribes would submit Animal transaction records of events related to animal/herd testing programs, certifying animals for interstate movement, completing electronic Interstate Certificate of Veterinary Inspection, etc. to the National Animal Records Repository
- Producers could submit records directly from their farms/ranches to the State/tribe Animal Identification and Tracking System used in their State or region.
- Records obtained from other premises would be reported to either the State/tribe Animal Identification and Tracking System, or to the National Animal Records Repository.

4. Animal location records are submitted to the Animal Records Repository.
5. Animal records received directly from any premises would be provided to the appropriate State/tribe Animal Identification and Tracking System.

## II. C. IDENTIFICATION AND REPORTING REQUIREMENTS FOR EXPORTED AND IMPORTED ANIMALS

### *II. C. 1. Identification and Reporting Requirements for Exportation of Individual Animals*

All animals being exported from the United States would be identified with the approved AIN tag for that species prior to being moved from their point-of-origin premises. The AIN, the PIN from where the animal was last received, and the PIN of the export facility would be reported to the National Animal Records Repository. The AIN of the animals being exported and the PIN of the export facility would also be recorded on the U.S. Origin Health Certificate which would accompany the animal(s) to the country of destination. USDA/APHIS port veterinarians would report to the National Animal Records Repository the AINs of the animals being exported, date of export shipment, and validation that the animals have been received at the export destination location.

### *II. C. 2. Identification and Reporting Requirements for Importation of Individual Animals*

Each animal arriving in the United States would be identified with an official RFID tag of the country of origin bearing the animal's individual number and would be accompanied by a USDA/APHIS-approved International Certificate of Identification, which include a listing of the age and sex of the animal.

#### **Cattle**

If an animal or groups of cattle do not contain the equivalent of the U.S. AIN/RF tag, the animal(s) would be off-loaded at the U.S. border, or final destination location, and be individually identified with an AIN tag. USDA/APHIS animal health officials or port veterinarians would assume responsibility for reporting to the National Animal Records Repository all official individual numbers of imported cattle with or without RFID tags, including any cross-referenced number on the animals at the time of entry, the date of import, date of tagging with the official AIN tag (if not previously tagged), premises of last destination prior to being imported into the United States, and the destination premises within the United States where the cattle are to be shipped, with subsequent validation that the cattle have been received at their designated U.S. premises.

## PART III. SPECIES-SPECIFIC PROCEDURES AND REQUIREMENTS

This section will provide species-specific information developed by the stakeholders representing each sector of the industry. Currently, the section contains only information pertaining to the cattle industry. Reports on other species are under development. The proposed requirements in this section reflect how the industry, in collaboration with State and Federal animal health authorities, plans to implement certain protocols and technologies in the NAIS. Certain recommendations address issues on which USDA/APHIS has taken a “neutral” position, including animal identification technologies.

### III. A. CATTLE

#### III. A. 1 Individual Identification Methods for Cattle

The NAIS Cattle Working Group (CWG) fully endorses the utilization of ISO-compliant radio frequency identification (RFID) eartags as the standard for implementing NAIS in the U.S. cattle industry. The CWG considers RFID eartags to be the most practical technology used today in automating the collection of individual animal identification for cattle. However, the industry remains receptive to other technologies that may prove to be both effective and efficient in either replacing or augmenting RFID eartags.

The official AIN tag with an RFID transponder encased in an eartag that is compliant with ISO 11784 and 11785 would be referred to as the AIN/RF Tag. The 3-digit country code (or manufacture code) and the 12-digit animal number imbedded in the transponder code would also be printed on the AIN/RF Tag.

#### Performance Standards for AIN/RF Tags - Cattle

Performance Standards for AIN/RF Tags (Cattle)	
Description	Performance measurement/requirement
Read Rates and Range (transponder)	
In a laboratory with a neutral electromagnetic environment,	100% read rate in best orientation at 24 inches (60 cm), in a stationary test and a moving test of 1 m/ sec over a passage length of at least 20 inches (50 cm).
In a field test environment	Transponders must be reliably machine read without regard to orientation by a standardized dual HDX/FDX reader, as cattle move by in single file in a passage 48 inches (1.2 m) wide with animals moving at 4 mph (1m/sec) at a read rate of 99.5%.
Transponder security	The official number encoded within each transponder must not be able to be altered and must be contained within tag. Tags will be tamper-evident and impossible to unseal without visible evidence of tempering. The tag is designed for one-time use. The tag design makes it impossible to remove and re-apply the tag securely without damaging the portion containing the transponder.
Tag toxicity/animal injury	Tags shall do no harm to animal or affect its health or well-being. Tags will not cause chemical contamination of meat or edible offal or damage the hide.
Tag deterioration	There will be no diffusion of colorant from tags. There will be no apparent physical deterioration (other than color) due to detrimental effects to UV light, rain, heat (45C) and cold (-30C) or other environmental influences such as chemicals, mud, urine, and manure for

	at least 5 years of wear.
Tag plasticity	Devices will not split or crack under normal use.
Transponder failure rates	The transponder within the tag shall be reliably machine-readable for the expected lifetime of the animal.
Tag retention rates	When applied in a manner approved by the manufacturer, the average tag loss shall not exceed 1% per annum under normal field conditions.
Tag coupling/tensile strength	Evaluation standards conform to ICAR testing standards and at minimum ISO standards 37 and 527.
Tag abrasion resistance	Tag shall not exhibit damage or change due to wear and will be subjected to ICAR testing standards and at minimum ISO standard 9352.
Tag applicator devices	A single action applicator that provides minimal risk of pain or distress, that safeguards animal and operator from danger, guards against the spread of disease.
Identification device visual characteristics	<p>The tag color shall be white.</p> <p>Print color shall be black, or in contrast to the background color or pattern.</p> <p>Printed information on the tag will require a visible U.S. logo and the AIN.</p> <p>Print size for bovine tags shall be a minimum height of 0.2 inches (5 mm) for numbers, letters, and the official logo.</p> <p>The US Shield shall have a minimum width of 0.2 inches (5 mm).</p> <p>The printing and color contrast of the U.S. Shield, lettering and numbers are to remain readable at a distance of 30 inches (0.75 m) for the expected lifetime of the tag.</p>

Table 35

*Other species reports pending.*

## PART IV – TRANSITIONING TO THE NAIS

### IV. A. TRANSITION OF OFFICIAL ANIMAL NUMBERING SYSTEMS

As noted earlier, the AIN, containing the “840” country code as the first three digits, was recognized for official identification of animals through an interim rule published in the *Federal Register* on November 8, 2004. Through a transitional phase, the following additional types of numbers, which are currently also considered official when imprinted on devices that meet USDA/APHIS official ID tag requirements, would remain so:

- (1) A 15-digit sequence that begins with a 3-digit manufacturer code. Manufacturer codes are assigned by the International Committee for Animal Recording; the current range is 935 to 985. The last 12 digits are unique within the manufacturer code numbering sequence.

Example: 985123456789012

- (2) A 15-character alphanumeric sequence that begins with "USA." The last 12 digits are unique within the USA numbering sequence.

Example: USA123456789012

In the long term, however, the AIN, with the “840” prefix, would become the standard for individual animal identification in the NAIS. USDA/APHIS and the States would terminate the distribution of all identification tags with the Uniform State Series number at an agreed-upon future date. Notice of this date would be published in the *Federal Register*.

### IV. B. STATE STATUS DESIGNATION

The NAIS would be implemented in stages. The concept of using stages of progress as a way of measuring national implementation is not new. It is how we measure progress in the brucellosis, tuberculosis, and pseudorabies eradication programs. The NAIS is also envisioned as a cooperative State/Federal/industry program and, therefore, would lend itself to similar tracking.

*Note: The following is presented as a “concept” for measuring progress toward full implementation of the NAIS through establishing State designations. The five-stage process described below is a transitional one that would be in effect while the NAIS is still being administered on a voluntary basis, prior to full implementation.*

#### Stage I:

##### Qualifications:

To qualify for Stage I recognition, the State would have to meet the following standards:

1. A State animal identification committee composed of representatives of major segments of the farm animal industry is formed and functioning. Membership could include, but is not limited to the following stakeholders:
  - a. Major producer organizations;
  - b. Major breed organizations;
  - c. Major marketing organizations;
  - d. Major packer organizations;
  - e. State and Federal animal health agencies and tribal organizations;
  - f. Technology providers (tags, readers, integrators);

- g. Data service providers; and
    - h. Transportation (trucking industry).
  2. Plans are formulated for a reliable system of determining the number of animals and the number of premises in the State.
  3. State officials and/or industry representatives have, or are actively seeking, legislative and regulatory authority to:
    - a. Participate in the NAIS;
    - b. Require the registration with State or Federal eradication programs of premises where animals reside that are susceptible to known foreign animal diseases or domestic diseases of concern to the State or Federal eradication programs, unless applicable Federal requirements are already in effect; and
    - c. Require identification of animals that move intrastate to a point where they are commingled with other animals.
  4. A system for distribution of NAIS literature to producers and other interested groups is developed and functioning.
  5. Applicable regulations are enforced.
  6. The States will prepare a quarterly report of NAIS activities and submit it to APHIS for tabulation and distribution in a national progress report. Veterinary Services shall issue reports as requested and at least annually to the NAIS Subcommittee of the Secretary's Advisory Committee on Foreign Animal and Poultry Diseases, on progress, operation, and use of Federal funds.

#### **Stage II: Premises Identification**

##### Qualifications:

To qualify for Stage II recognition, the State would have to meet the following standards:

1. All qualifying requirements of Stage I continue to be met.
2. The State has implemented a premises registration system that is compliant with NAIS data standards.
3. Thirty-five percent of the qualifying premises in the State are registered with information that is reported to the National Premises Information Repository.
4. The State has a requirement that registered premises update the contact information at least annually.

#### **Stage III: Animal Identification**

##### Qualifications:

To qualify for Stage III recognition, the State would have to meet the following standards:

1. All qualifying requirements of Stage II continue to be met.
2. The State has begun to identify nonproducer participants within their State who may qualify as AIN Managers. These entities will need to apply to USDA/APHIS to make certain they meet the strict requirements. USDA/APHIS will make a list of all certified AIN Managers available to the States.
3. A system to issue AINs to producers has been implemented in the State.



4. Eighty percent of the qualifying premises in the State are registered with information that is reported to the National Premises Information Repository.
5. Twenty-five percent of the qualifying animals in the State are identified and reported to the National Animal Identification and Tracking Repository in accordance with the requirements of the NAIS.

#### **Stage IV: Animal Tracking**

##### Qualifications

To qualify for Stage IV recognition, the State would have to meet the following standards:

1. All qualifying requirements of Stage III continue to be met.
2. The State has begun to implement an animal tracking system that is compliant with NAIS data standards.
3. Key locations where animals commingle are equipped with the infrastructure to record the information required by the NAIS and report it to the National Animal Tracking Information Repository.
4. Ninety-five percent of the qualifying premises in the State are registered with information that is reported to the National Premises Information Repository.
5. Sixty percent of the qualifying animals in the State are identified and reported to the National Animal Tracking Information Repository in accordance with the requirements of the NAIS.
6. Twenty-five percent of the qualifying animal movements in the State are recorded and reported to the National Animal Tracking Information Repository in accordance with the requirements of the NAIS.

#### **Stage V: NAIS Full implementation**

##### Qualifications:

To qualify for Stage V recognition, the State would have to meet the following standards:

1. All qualifying requirements of Stage IV continue to be met.
2. One hundred percent of the qualifying premises in the State are registered with information that is reported to the National Premises Information Repository.
3. Ninety percent of the qualifying animals in the State are identified and reported to the National Animal Tracking Information Repository in accordance with the requirements of the NAIS.
4. Eighty percent of the qualifying animal movements in the State are recorded and reported to the National Animal Tracking Information Repository in accordance with the requirements of the NAIS.

##### **Duration of status**

Following a 12–14 month assignment for any Stage status by USDA/APHIS, a State would have to (1) indicate that it continues to meet the current Stage requirements, utilizing the same certification procedures as followed initially, or (2) certify that it meets the requirements of a subsequent Stage. States failing to recertify as required will automatically lose their current status and revert to the previous stage.

## APPENDIX A – DEFINITIONS

### **Animals:**

For the purposes of this document, the term “animals” refers only to those species listed in the Species Codes Definitions in Part II. B.

### **Animal Identification Number (AIN):**

Ultimately, the Animal Identification Number will be the sole national numbering system for the official identification of individual animals in the United States. The format contains 15 digits: the first three are the country code (840 for the United States), and the following 12 digits are the animal’s national number.

### **AIN Allocator:**

The program administered by APHIS that releases and maintains a record of AINs provided to AIN tag manufacturers.

### **AIN Tag:**

Official, visual animal identification devices that have an AIN printed on them.

### **AIN/RF Tags:**

AIN tags that also contain Radio Frequency Identification (RFID) transponders.

### **AIN Tag Distributor:**

A person or entity that distributes and/or takes orders for AIN tags. The distributor has an agreement with an AIN Tag Manager who must report distribution information to the National Animal Records Repository.

### **AIN Tag Manager:**

An entity authorized by APHIS to distribute AIN tags to a premises. The AIN Tag Manager agrees to validate the premises number of the receiving operation and report the AINs distributed to that receiving operation to the National Premises Information Repository.

### **AIN Tag Manufacturer:**

A company that is authorized by APHIS to receive AINs and produce AIN tags.

### **Brand Inspection Entity:**

State brand inspection agencies or other brand inspection organizations authorized by either by a State or the Grain Inspection, Packers and Stockyards Administration (USDA).

### **Breeding Stock:**

Sexually intact animals of either sex (except for veal calves and females of any species) moving directly to a terminal feedlot.

### **Check Digit:**

A digit contained within a number that provides a test to the validity of that number.

### **Compliant Premises Registration System:**

A State, Tribe, or third party premises registration system that meets with NAIS data standards and communication security requirements. APHIS determines compliance or noncompliance.

**Country Code:**

A 3-digit numeric code representing the name of a country in accordance with ISO 3166.

**Electronic Identification (EID):**

An identification method that utilizes electronic technology, including, but not limited to, bar codes, 2-D symbology, and radio frequency.

**Group/Lot Identification Number (GIN):**

The number used to identify a unit of animals of the same species that is managed together throughout the pre-harvest production chain. The GIN consists of a 7-character Premises Identification Number and a 6-digit representation of the date that the group or lot of animals was assembled (MMDDYY).

**Individual Animal Identification:**

A means of identification that differentiates one animal from another. Official individual-animal- identification uses APHIS-approved methodology.

**Identification Methods:**

A means of identifying an animal, including: ear tags, biometrics, brands and brand inspection records, breed registry certificates, etc.

**Interstate Movement:**

Movement that crosses State lines, regardless of ownership, at either shipping or receiving premises.

**Intrastate Movement:**

Movement within a State that does not meet criteria for being interstate commerce.

**ISO**

International Organization for Standardization.

**ISO Transponder:**

An ISO Transponder is a Radio Frequency Identification (RFID) device that transmits its transponder code according to ISO 11784/11785 when activated by a transceiver. The International Committee on Animal Recording (ICAR) must verify that a transponder is ISO 11784/11785 compliant and also assigns a manufacturer's code to the manufacturer. The manufacturer's code is a 3-digit number that ICAR assigns to a company when their evaluated transponders are deemed ISO 11784/11785 compliant.

**ISO Transceiver (Reader):**

A device that receives and reads radio signals from both ISO FDX-B and ISO HDX transponders as defined in ISO 11784/11785.

**Mandatory Identification:**

A State and/or Federal identification requirements that defines which livestock must be identified according to established protocols.

**National Animal Identification & Tracking:**

The National Animal System of NAIS that contains and coordinates the AIN Allocator, Animal Identification and Tracking Systems, and the National Animal Records Repository.

**National Premises System:**

The National Premises System contains the Premises Number Allocator, the Premises Registration Systems, and the National Premises Information Repository.

**Nonproducer Participant:**

A person or entity who engages in NAIS activity in a designated role/s where that role/s is not associated with a specific premises. Typical roles include USAIN Manager, AIN Distributor, Animal Health Official, Brand Inspection Entity, Diagnostic Laboratory, etc. Nonproducer Participants may provide data to the national identification database.

**Official Identification Devices and Methods:**

Means of officially (approved by the APHIS Administrator) identifying an animal, or group of animals, including, but not limited to: official tags, tattoos, and registered brands when accompanied by a certificate of inspection from a recognized brand inspection authority.

**Officially Identified:**

The moment when an official identification number is applied to an animal by means of an identification method or device approved by the APHIS Administrator for purposes related to official disease control programs or animal movements in interstate or international commerce.

**Official Animal Identification Number Systems:**

Currently, there are three official numbering systems; the three National Uniform Ear Tagging System, AIN, and the premises-based system that combines an official PIN with a producer's livestock production numbering system.

**Premises:**

A physical location that represents a unique and describable geographic entity where activity affecting the health and/or traceability of animals may occur. The State Animal Health Official or Area Veterinarian in Charge (and when appropriate, in conjunction with the affected producer) determines what is a premises.

**Premises Identification Number (PIN):**

An official, 7-character identification code assigned to a premises; the final PIN digit is a check digit

**Premises Identification of Individual Animals:**

The method of identification in which an official identification device (bearing the last PIN and thus, associating the animal to its last location) is attached to the animal prior to movement.

**Premises Number Allocator:**

The APHIS computer program that assigns PINs to a specific location through interfaces with Standardized or Compliant Premises Registration Systems.

**Radio Frequency Identification (RFID):**

An identification device that utilizes radio frequency technology. The RFID device includes ear tags, bolus, implants (injections), and Tag attachments (transponders that work in concert with ear tags).

**Standardized Premises Registration System:**

The Premises Registration System that APHIS makes available to all States and tribes.

**Terminal Feedlot (Designated Feedlot):**

A livestock feeding operation where all animals, upon exit of the operation, move directly to a slaughter plant.

**Transponder code:**

The code programmed into a transponder as defined in ISO 11784 and ISO 11785.