BSE in the US
USDA Response

HHS Advisory Committee
Blood Safety and Availability
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BSE Timeline

- 12/9/03 – index cow arrives at WA slaughter plant, tested as a non-ambulatory (downer) animal

- 12/23/03 – presumptive positive BSE test results reported from NVSL

- 12/23/03 – Epidemiologic investigation begins

- 12/25/03 - Confirmation of BSE positive diagnosis

- 12/30/03 – USDA Secretary Veneman announces additional safeguards to be initiated by APHIS and FSIS.

- 1/12/04 – USDA Secretary makes declaration of extraordinary emergency providing additional authorities and funding for response (effective on 1/6/04)

BSE Index Case - Diagnosis

- Presumptive positive diagnosis at NVSL was based on
  - ✓ Positive immunohistochemical staining ("gold standard" test)
  - ✓ Typical spongiform lesions observed on routine histopathologic examination
- The positive diagnosis was confirmed at the BSE reference laboratory in Weybridge, England. Samples from the index cow were hand carried to this laboratory where the BSE diagnosis was confirmed on 12/25/03.
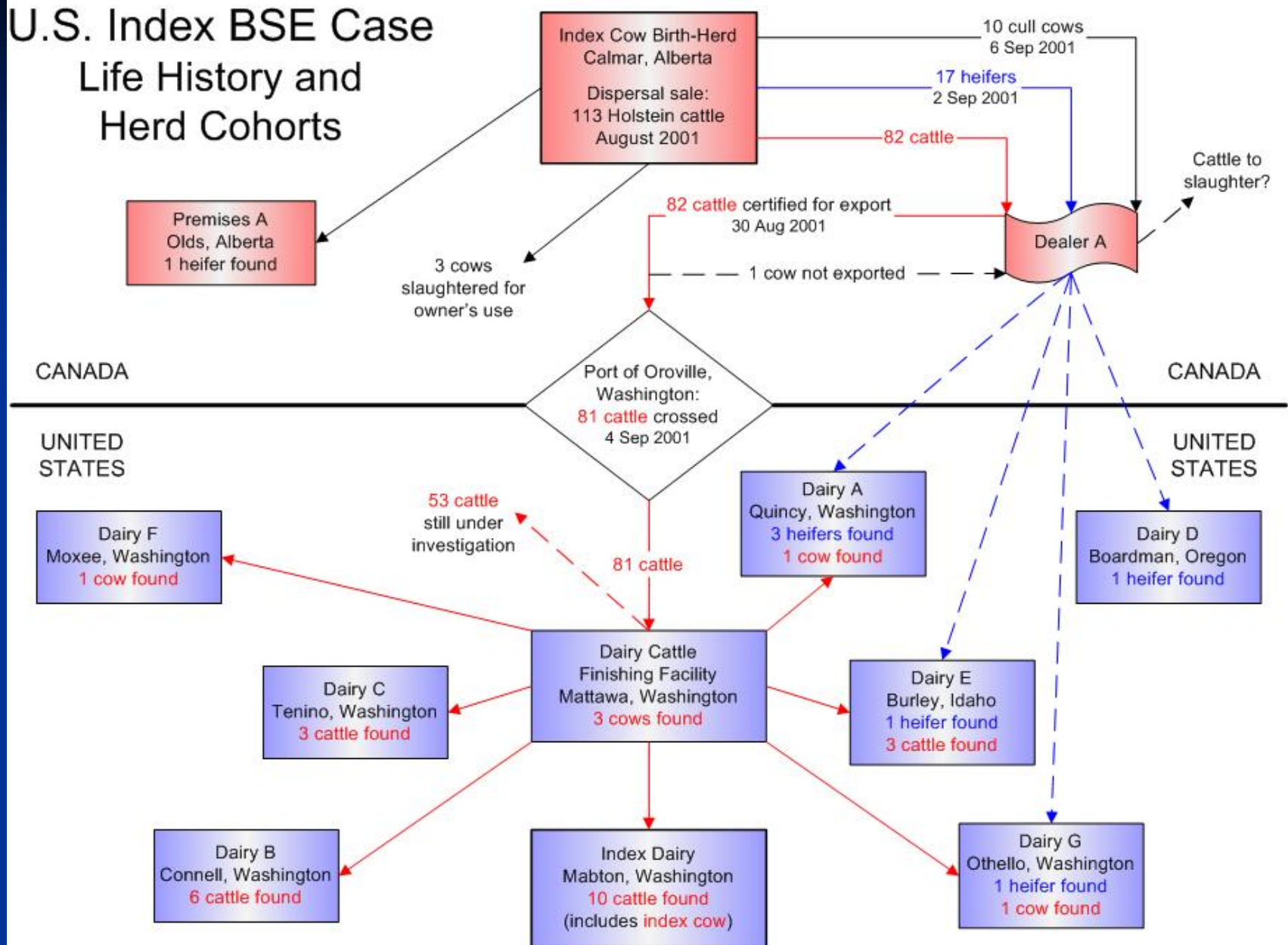
BSE Index Case

- Holstein dairy cow, 6 ½ years at slaughter
- Sent to slaughter due to calving complications
- Tested at slaughter because of non-ambulatory status, no neurological signs observed
- Trace back investigation determined cow was born into a herd in Alberta, Canada
- Moved into U.S. as part of dispersal sale in 2001
- Initially went to Mattawa, WA dairy finishing herd (9/01)
- Resided in Mabton, WA dairy herd since 10/01

BSE Index Case (continued)

- The index cow has had four offspring over her lifetime, three calves since entering the U.S.
  - ✓ A heifer calf born in Canada
  - ✓ A stillborn calf born in 2001
  - ✓ A heifer calf in born in 2002 (still in the index herd)
  - ✓ A bull calf born in 2003 – moved to a bull calf raiser in Sunnyside, WA

U.S. Index BSE Case Life History and Herd Cohorts

Index Cow Birth-Herd Calmar, Alberta
Dispersal sale: 113 Holstein cattle August 2001

10 cull cows 6 Sep 2001
17 heifers 2 Sep 2001
82 cattle

Premises A Olds, Alberta 1 heifer found

82 cattle certified for export 30 Aug 2001

Cattle to slaughter?

3 cows slaughtered for owner's use

1 cow not exported

Dealer A

CANADA

CANADA

UNITED STATES

Port of Oroville, Washington: 81 cattle crossed 4 Sep 2001

UNITED STATES

53 cattle still under investigation

81 cattle

Dairy A Quincy, Washington 3 heifers found 1 cow found

Dairy D Boardman, Oregon 1 heifer found

Dairy F Moxee, Washington 1 cow found

Dairy C Tenino, Washington 3 cattle found

Dairy Cattle Finishing Facility Mattawa, Washington 3 cows found

Dairy E Burley, Idaho 1 heifer found 3 cattle found

Dairy B Connell, Washington 6 cattle found

Index Dairy Mabton, Washington 10 cattle found (includes index cow)

Dairy G Othello, Washington 1 heifer found 1 cow found

through 26 Jan 2004

"At Risk" Animals Located

- "At risk" animals = 81 animals from herd in Canada
  - One of the 81 is the positive cow
  - 9 – index herd, Mabton, WA (131 euthanized) *
  - 3 - Tenino, WA (4 euthanized)
  - 6 - Connell, WA (15 euthanized) *
  - 1 - Quincy, WA (18 euthanized)
  - 3 - Mattawa, WA (39 euthanized) *
  - 1 – Moxee, WA
  - 3 – Burley, ID
  - 1 – Othello, WA

January 26, 2004

FSIS Actions

- Class II voluntary recall of meat initiated on 12/24/03

- Includes 10,410 pounds

- Includes all 20 animals slaughtered on the same day as index cow

- Product was distributed to Interstate Meats and Williamette Valley Meats and subsequently distributed to 42 locations within several states
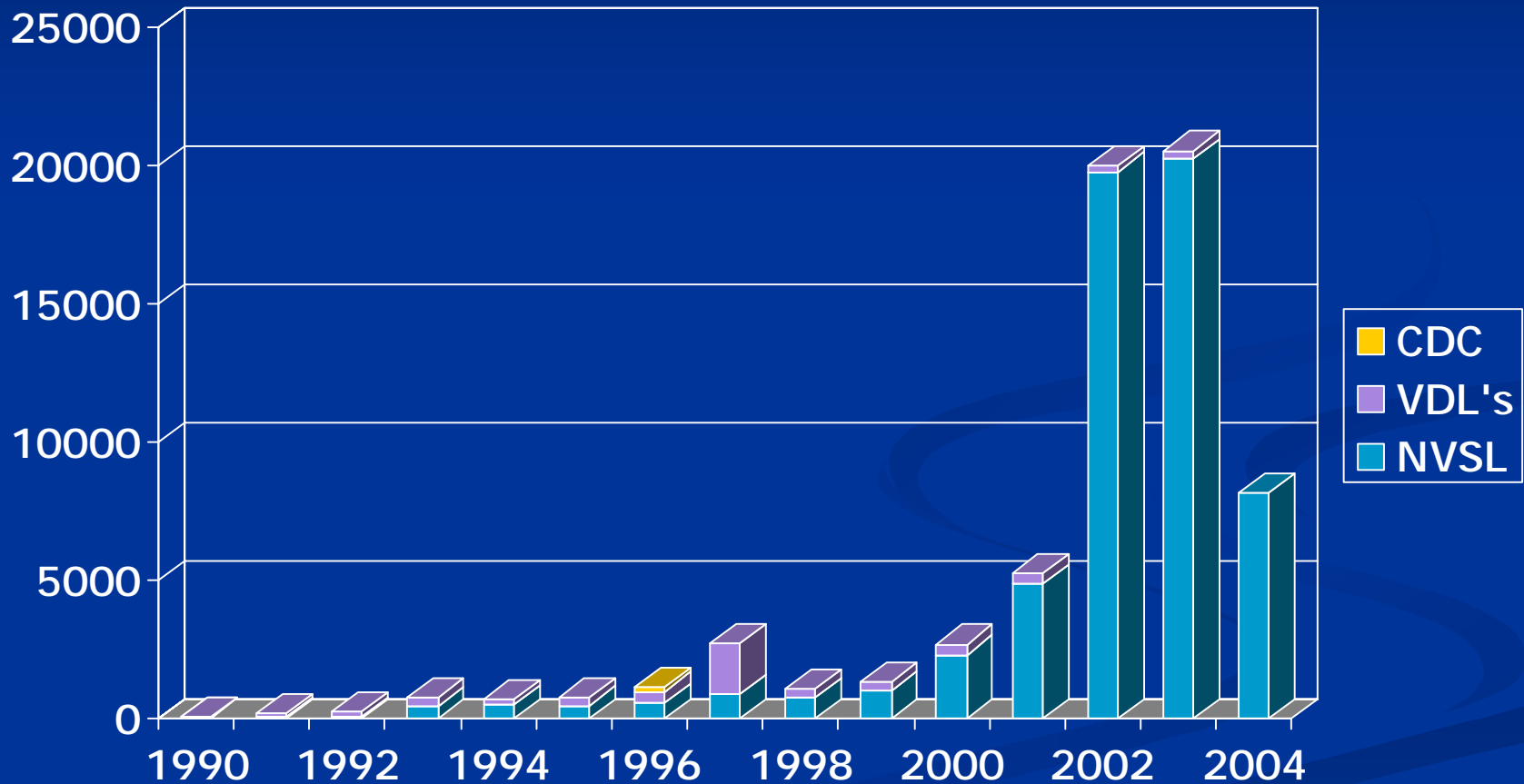
FSIS Actions, cont'd

- 4 FSIS Regulations – Part of the safeguards announced on 12/30/03 by Secretary Veneman

- All were published on 1-12-04

  - ✓ Non-ambulatory disabled cattle banned from human food chain (went into effect immediately following the Secretary's announcement) and Specified Risk Materials (SRMs) from cattle prohibited in human food chain (SRMs include brain, spinal cord, trigeminal ganglia, tonsils and small intestine)

  - ✓ AMR process controls instituted to prevent nervous system tissue in meat (i.e. can't use skull or spinal column)

  - ✓ Air-injection stunning of cattle prohibited

  - ✓ Mechanically separated meat prohibited from human food chain

Other USDA Safeguards

✓ FSIS Notice - If cattle are tested for BSE, they will not receive an FSIS "inspected and passed" mark until negative test results received

✓ APHIS to implement verifiable system of national animal identification

BSE Surveillance –
May 1990 – FY2004 (thru 12/31/2003)

BSE – Targeted Surveillance

- **Non-ambulatory animals**

- **Dead stock**

- **Field CNS Cases and on-farm suspects**

- **Veterinary Diagnostic Laboratory data**

- **Public health laboratories**

- **CNS condemns at slaughter and other antemortem condemns in certain categories**

Surveillance goals

- Surveillance at a level sufficient to find 1 case per 1 million adult cattle, 95% confidence
- Based on estimates of targeted high risk population
  - Non-ambulatory – 195,000
  - Broader estimate, including deads and other condemns – 600,000
- Adult cattle population – 45 million