June 3, 2014

FSIS Docket Clerk
Department of Agriculture
Food Safety and Inspection Service
Room 2534 South Building
1400 Independence Avenue, S.W.
Washington, DC 20250-3700

Submitted electronically to Mary.Porretta@fsis.usda.gov

Dear Ms. Porretta:

On behalf of Farm Sanctuary, the ASPCA, Animal Legal Defense Fund, the Animal Welfare Institute, Compassion in World Farming, Compassion Over Killing, Farm Forward, and Mercy for Animals, I am submitting the attached rulemaking petition to amend regulations related to the Humane Methods of Slaughter Act and Federal Meat Inspection Act, with a focus on banning the slaughter of nonambulatory disabled (NAD) pigs.

We are submitting this electronic copy of the petition now, and will send printouts of all of the attachments by postal mail soon. Please let me know if it would be acceptable to simply email the attachments as PDF files, rather than printing and mailing them.

Please send any communications regarding this petition to my attention:

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Thank you very much for your time and attention.

Respectfully submitted,

Bruce G. Friedrich
Director of Advocacy & Policy
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202.306.2020

BEFORE THE UNITED STATES
DEPARTMENT OF AGRICULTURE
FOOD SAFETY AND INSPECTION SERVICE

FARM SANCTUARY,
AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS,
ANIMAL LEGAL DEFENSE FUND,
ANIMAL WELFARE INSITUTE,
COMPASSION IN WORLD FARMING,
COMPASSION OVER KILLING,
FARM FORWARD, and
MERCY FOR ANIMALS,

Petitioners,

v.

HONORABLE TOM VILSACK, SECRETARY, and
BRIAN RONHOLM, DEPUTY UNDER SECRETARY FOR FOOD SAFETY,
UNITED STATES DEPARTMENT OF AGRICULTURE,

Respondents.

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Petition for Rulemaking

I. Introduction

The undersigned submit this petition to request that the Food Safety and Inspection Service (FSIS) amend the ante-mortem inspection regulations to prohibit the slaughter of non-ambulatory disabled (NAD) pigs.[1] Specifically, Petitioners request that FSIS amend 9 C.F.R. § 309.3 by adding a provision: "(f) Non-ambulatory disabled pigs that are offered for slaughter must be condemned and humanely euthanized in accordance with § 309.13."

FSIS should initiate this rulemaking to improve food safety, animal handling, and inspector efficiency at slaughter establishments. In March 2009, FSIS promulgated a rule that banned the slaughter of NAD cattle in order "to better ensure effective implementation of inspection and humane handling requirements at official establishments."[2] Then, in March 2013, FSIS granted a petition filed by the Humane Society of the United States (HSUS) to prohibit the slaughter of NAD veal calves to "better ensure humane handling requirements established pursuant to 21 U.S.C. 603(b) are satisfied, and to ensure the effective implementation of ante-mortem inspection pursuant to 21 U.S.C. 603(a) of the Federal Meat Inspection Act."[3]

The same logic offered by USDA in making these previous two important decisions also requires the condemnation and prompt euthanasia of NAD pigs.[4]

First, USDA's statutory food safety mandate requires the condemnation of NAD pigs. As FSIS has acknowledged, reduction of salmonella prevalence will "help [slaughter establishments] better comply with the relevant regulatory requirements (9 CFR 310.7, 310.10, 310.11, 310.12, 310.18, 310.25, Part 416, and Part 417).[5] And the agency has noted specifically that "lairage is the most cost-effective stage to prevent cross-contamination that leads to rapid infection."[6]

A European Food Safety Authority Scientific Opinion links long holding times and fecal contamination at pig slaughter establishments to *Salmonella* spp. and *Yersinia enterocolitica* infection.[7] NAD pigs are prone to both hazards: they are held longer than other pigs and exposed to more fecal matter because they cannot rise from the floor of dirty holding pens. Other studies have found that most NAD pigs are actively infected with H1N1 swine influenza,[8] that NAD

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[1] "Non-ambulatory disabled livestock are livestock that cannot rise from a recumbent position or that cannot walk, including, but not limited to, those with broken appendages, severed tendons or ligaments, nerve paralysis, fractured vertebral column, or metabolic condition." 9 CFR § 309.2(b).

[2] "Requirements for the Disposition of Cattle that Become Non-Ambulatory Disabled Following Ante-Mortem Inspection," 74 FR 11463-01

[3] Attachment 1, FSIS Administrator Alfred V. Almanza, Letter Granting HSUS Petition (Mar. 13, 2013).

[4] *See County of Los Angeles v. Shalala*, 192 F.3d 1005, 1022 (D.C. Cir. 1999) ("A long line of precedent has established that an agency action is arbitrary when the agency offer[s] insufficient reasons for treating similar situations differently.") (*quoting Transactive Corp. v. United States,* 91 F.3d 232, 237 (D.C. Cir. 1996)).

[5] Attachment 58, FSIS, *Compliance Guideline for Controlling* Salmonella *in Market Hogs*, December 2013.

[6] Attachment 58, available at http://www.regulations.gov/#!documentDetail;D=FSIS-2014-0002-0001.

[7] Attachment 2, European Food Safety Authority, *Scientific opinion on the public health hazards to be covered by inspection of meat (swine)*, 9(10) EFSA JOURNAL 2351 (2011), *available at* http://www.efsa.europa.eu/en/efsajournal/doc/2351.pdf.

[8] Attachment 3, Mhairi A. Sutherland, et al., *Health of non-ambulatory, non-injured pigs at processing*, 116 LIVESTOCK SCI. 237–245 (2008).

pigs present symptoms of *Listeria monocytogenes* and other infections, and that NAD pigs are 16 times more likely than ambulatory pigs to harbor antibiotic-resistant *Campylobacter*.[9] Condemning NAD pigs will thus reduce the risk of diseased pigs entering the food supply.

Second, USDA statutory animal handling mandate also requires the prompt euthanasia of NAD pigs. Prompt euthanasia would end the fiscal incentive for establishments to inhumanely force NAD pigs to rise[10] and end the incentive for producers to send to slaughter "old, weak, emaciated sows . . . likely to become downers."[11] It would also create an incentive for establishments to improve animal handling, since improved handling generates up to 17 times fewer NAD pigs than aggressive handling does.[12] And it would improve handling throughout slaughter establishments because "[m]aintaining an adequate level of animal welfare at the plant level is impossible if the pigs are too weak to walk through the yards."[13]

Third, in addition to the fact that the slaughter of NAD pigs leads to higher levels of adulteration and cruelty, the current regime taxes inspectors in a way that decreases agency efficiency with regard to all tasks assigned to inspectors. [14] FSIS cited this issue in both its decision to ban the slaughter of NAD cattle[15] and in its decision to do the same for calves.[16] As FSIS deals with inspector cutbacks and a move toward greater self-regulation by slaughterhouses, a rule to ban the slaughter of NAD pigs will best ensure that inspector attention is not diverted to an issue that, even if time and multitude of tasks competing for an inspector's time and attention were not an issue, "may be impossible to ascertain."[17]

II. Interests of Petitioners

Petitioner the American Society for the Prevention of Cruelty to Animals (ASPCA) has worked since 1866 to stop the cruelties committed upon animals used for food. In the late 1800s, early ASPCA agents inspected New York City's stockyards and slaughterhouses, while ASPCA founder Henry Bergh pursued legislation to ensure that animals raised for human consumption

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[9] Attachment 4, M.E. Schuppers, *Clinical herd health, farm management and antimicrobial resistance in campylobacter coli on finishing pig farms in Switzerland*, 69 PREV. VET. MED. 189–202 (2005).

[10] The most recent available analysis estimates that if an establishment can force a pig to rise before ante-mortem inspection it is worth $126. By contrast, if an establishment has to classify the pig as NAD, it is worth $88, and if it is ultimately condemned it is worth nothing. Attachment 5, M. J. Ritter, et al, *Review*: *Transport losses in market weight pigs: I. A review of definitions, incidence, and economic impact*, 25 PROF. ANIM. SCIENTIST 404–415 (2009), *available at* http://pas.fass.org/content/25/4/404.full.pdf+html. BF COMMENT: This says to me that the difference between condemnation and non-condemnation is at least $88; I did make this change in the few places where the issue is discussed. Please let me know if I've missed anything.

[11] Attachment 6, Temple Grandin, Handling of Crippled and Nonambulatory Livestock, *available at* http://www.nal.usda.gov/awic/newsletters/v9n1/9n1grand.htm.

[12] Attachment 7, Matt Ritter and Mike Ellis, Handling Challenges: Non-Ambulatory Pigs, presentation prepared for the American Meat Institute, at slide 15 (2007), *available at* http://www.meatami.com/Education/Presentations/2007/Animal Handling/RitterHandlingChallengesNonAmbulatoryPigs.pdf.

[13] Attachment 8, Temple Grandin, *Fixing the Downer Pig Problem*, Meat and Poultry at 82 (May 2006).

[14] 2009 Final Rule, 74 Fed. Reg. at 11463 (with regard to the cattle rule, FSIS noted that allowing NAD slaughter causes inspectors to "spend [time] determining whether or not an animal can be tagged as 'U.S. Suspect,' proceed to slaughter, and then re-inspected after slaughter, thereby increasing the time inspection program personnel can focus on other inspection activities").

[15] 74 Fed. Reg. 11463 (the rule will "reduce uncertainty in determining the proper disposition of non-ambulatory cattle").

[16] See attachment 1 ("FSIS has concluded that prohibiting slaughter of all NAD veal calves would improve the Agency's inspection efficiency by eliminating the time that FSIS inspection program personnel spend assessing and supervising the treatment of NAD veal calves").

[17] Detwiler, *supra* note 64.

were handled humanely. Today, on behalf of its 2.5 million supporters, the ASPCA continues its efforts to prevent the suffering of animals raised for food.

Petitioner ALDF is a national nonprofit organization that works to protect the lives and advance the interests of animals through the legal system. ALDF has spent over three decades working on issues involving animals and the law, with a focus on assisting agencies, courts, and legislatures in carrying out public policy against animal cruelty and advancing the protection of the interests of animals and consumers under the law. Based in Cotati, California, ALDF represents over 110,000 members, is supported by hundreds of dedicated pro bono attorneys, and supports 177 student ALDF chapters in law schools throughout the United States. ALDF has long been involved in the protection of animals used and sold in commercial enterprises, with a particular focus on the cruel treatment and intensive confinement of animals used for food.

Petitioner the Animal Welfare Institute (AWI), a non-profit charitable organization, has been alleviating the suffering inflicted on animals by people since its founding in 1951. AWI aims to improve the welfare of animals used in agriculture through engagement with policymakers, scientists, industry, non-governmental organizations, farmers, veterinarians, teachers, and the public. Specifically, AWI seeks to abolish factory farms, support high-welfare family farms, achieve humane slaughter, and improve transport conditions for all animals raised for food. The organization monitors enforcement of U.S. humane slaughter laws and lobbies for stronger regulation and increased enforcement. It also regularly comments on proposed changes to international standards for the welfare of animals at slaughter. Headquartered in Washington, DC, AWI has members and supporters throughout the United States.

Compassion in World Farming (CIWF) was founded in 1967 in England by a British farmer who became horrified by the development of intensive factory farming. Over 40 years ago he decided to make a difference and take a stand against this farming system. In his lifetime, Peter Roberts saw the demise of veal crates and gestation crates in the UK, and in Europe achieved recognition that animals are sentient beings and secured a ban on the barren battery cage and gestation crates for sows (except for the period up to four weeks into pregnancy). Today, CIWF campaigns on a global level to end all cruel factory farming practices. The organization believes that the biggest cause of cruelty on the planet deserves a focused, specialized approach – so it only works on farm animal welfare. CIWF's U.S. office is based in Atlanta, Georgia.

Petitioner Compassion Over Killing (COK) is a national nonprofit animal advocacy organization working to eliminate cruelty to animals used in agriculture, including pigs, since 1995. COK seeks to educate the public about the cruel practices utilized by industrial animal agriculture through investigations, legal advocacy, and outreach campaigns. Many of COK's more than 45,000 supporters are concerned about the treatment of animals when purchasing animal products, and support measures that would help eliminate the inhumane handling of injured and disabled pigs.

Launched in 2007, Farm Forward is a nonprofit advocacy and consulting group at the forefront of pragmatic efforts to transform the way our nation eats and farms. Our vision is encapsulated in the critically acclaimed international bestseller *Eating Animals* by Farm Forward

Board Member Jonathan Safran Foer, and our executive staff and board have been working on behalf of farmed animals since the early 1990s. This accumulated expertise informs Farm Forward's unique role as the first centrist organization where disparate interests opposed to the abuse of animals on factory farms can unite in coordinated and effective ways.

Petitioner Farm Sanctuary has worked since 1986 to expose and stop cruel practices of animal agriculture through research and investigations, legal and institutional reforms, public awareness projects, youth education, and direct rescue and sanctuary efforts. Farm Sanctuary's policy efforts have led to laws and regulations that protect farm animals from some of the worst abuses of industrial farming. Farm Sanctuary's three shelters in New York and California provide lifelong care for more than 1,000 abused and neglected farm animals, who have become ambassadors for farm animals everywhere by educating visitors about who farm animals are and how they suffer in modern farming.

Petitioner Mercy For Animals (MFA) is a national non-profit animal protection organization dedicated to preventing cruelty to farmed animals and promoting compassionate food choices and policies. Through its animal cruelty investigations, legal advocacy, corporate outreach, and consumer education initiatives, MFA serves as a voice for the billions of farmed animals who are raised and killed for food each year in this country. MFA has a long history of undercover investigations and legal advocacy efforts that have led to increased legal protections for farmed animals and enforcement of existing animal cruelty laws.

III. Action Requested

Pursuant to the FSIS petition regulations[18] and the Administrative Procedure Act,[19] the undersigned submit this petition for rulemaking under the Humane Methods of Slaughter Act (HMSA), which requires that FSIS take regulatory action to prevent inhumane handling in the slaughter process, and under the Federal Meat Inspection Act (FMIA), which requires that FSIS prevent the sale of meat unfit for human consumption. Specifically, Petitioners request that FSIS amend 9 C.F.R. § 309.3 by adding a provision:

Section 309.3 Dead, dying, disabled, or diseased and similar livestock.

(f) Non-ambulatory disabled pigs that are offered for slaughter must be condemned and humanely euthanized in accordance with § 309.13.

Additionally, Petitioners request that FSIS amend its directives on ante-mortem inspection,[20] humane handling and slaughter of livestock,[21] and any other relevant topics, to clarify that all pigs non-ambulatory at ante-mortem inspection, and all pigs that become non-ambulatory after passing ante-mortem inspection, must be promptly and humanely euthanized.

[18] 9 C.F.R. § 392.
[19] 5 U.S.C. 553(e).
[20] Ante-Mortem Livestock Inspection, FSIS Directive 6100.1, Rev. 1 (Apr. 11, 2011).
[21] Humane Handling and Slaughter of Livestock, FSIS Directive 6900.2, Rev. 2 (Aug. 15, 2011).

IV. Legal Background

A. The Humane Methods of Slaughter Act

Congress passed HMSA to "establish as a national policy that livestock should be slaughtered and handled in connection with slaughter only by the 'most humane practicable methods.'"[22] The Act authorizes USDA to "designate methods . . . of handling in connection with slaughter which with respect to each species of livestock, conform to [that] policy."[23] HMSA is incorporated by reference into the Federal Meat Inspection Act (FMIA), which instructs USDA to appoint inspectors to enforce humane handling regulations at slaughter establishments.[24] The 1978 amendments to the Act direct USDA to refuse to inspect at a slaughter establishment if animals "have been slaughtered or handled in connection with slaughter at such establishment by any method not in accordance with [HMSA]."[25] FSIS regulations govern all aspects of handling animals at slaughter establishments.[26] In line with Congress' intent, these regulations apply from the moment "a vehicle carrying livestock enters an official slaughter establishment's premises" until slaughter.[27]

B. The Federal Meat Inspection Act

FMIA authorizes USDA to conduct ante-mortem and post-mortem inspections to ensure that adulterated meat does not enter the human food supply.[28] FMIA directs USDA to inspect animals "before they shall be allowed to enter into any slaughtering . . . establishment" and to "set apart and slaughter[] separately" animals that "show symptoms of disease."[29] FMIA grants USDA broad authority to "make such rules and regulations as are necessary for the efficient execution of the provisions of [FMIA]."[30] Under these regulations, FSIS inspectors designate all animals presented for slaughter as U.S. Condemned, U.S. Suspect, or fit for slaughter.[31] These inspectors are meant to document all humane handling violations with a non-compliance record, and may respond to food safety and humane handling violations with a "regulatory control action," "withholding action," or "suspension."[32] Additionally, criminal enforcement is available under section 676; thus, inhumane slaughter could result in "imprisonment for not more than one

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[22] Attachment 9, H.R. Report No. 85-706, at 4 (1957). *See also* 7 U.S.C. 1902 ("No method of slaughtering or handling in connection with slaughtering shall be deemed to comply with the public policy of the United States unless it is humane").
[23] 7 U.S.C. 1904(b).
[24] 21 U.S.C. 603(b).
[25] 92 Stat. 1069 (1978) (codified at 21 U.S.C. 603(b)).
[26] *See* 9 C.F.R. § 313. *See also* provisions of 9 C.F.R. §§ 301, 304, 305, 313, 327, 335, 390, 391.
[27] 44 Fed. Reg. 68,811 (*quoting* S. Comm. Rep. No. 95-1059, at 4 (1978) ("It is the committee's intent that handling in connection with slaughter be interpreted by the Secretary to begin at the time livestock come into the custody of the slaughtering establishment, up to and including the moment of slaughter.")).
[28] 21 U.S.C. §§ 603, 604, 606. Section 601(m) of the FMIA defines "adulterated" to include: "any carcass, part thereof, meat or meat food product . . . (m)(1) if it bears or contains any poisonous or deleterious substance that may render it injurious to health . . . (m)(3) if it consists in whole or in part of any filthy, putrid, or decomposed substance or is for any other reason unsound, unhealthful, unwholesome, or otherwise unfit for human food."
[29] 21 U.S.C. 603(a).
[30] 21 U.S.C. 621.
[31] 9 C.F.R. §§ 309.2, 309.3.
[32] *See* 9 C.F.R. § 313.50 ("When an inspector observes an incident of inhumane slaughter or handling in connection with slaughter, he/she shall inform the establishment operator of the incident and request that the operator take the necessary steps to prevent a recurrence."). A "regulatory control action" is "the retention of product, rejection of equipment or facilities, slowing or stopping of lines, or refusal to allow the processing of specifically identified product." *Id*. § 500.1(a). A "withholding action" is "the refusal to allow the marks of inspection to be applied to products." *Id*. § 500.1(b). A "suspension" is "an interruption in the assignment of program employees to all or part of an establishment." *Id*. §500.1(c).

year, or a fine of not more than $1,000, or both."[33] And if the violation "involves intent to defraud, or any distribution or attempted distribution of an article that is adulterated … such person, firm, or corporation shall be subject to imprisonment for not more than three years or a fine of not more than $10,000, or both…"[34]

C. Regulations Governing Non-Ambulatory Disabled Livestock

FSIS regulations have split procedures for NAD livestock. Inspectors must condemn NAD cattle and ensure that they are promptly euthanized.[35] But inspectors need only identify other "seriously crippled animals and non-ambulatory disabled livestock" – including pigs – as U.S. Suspects that "shall be set apart and shall be slaughtered separately from other livestock."[36] Establishments are meant to move NAD pigs "on equipment suitable for such purposes,"[37] though FSIS directives authorize the use of "bobcat-type vehicles."[38] Establishments may then slaughter NAD pigs, whose meat enters the food supply after post-mortem inspection, or hold them in covered pens to see if they regain the ability to walk.[39] There is no limit to how long U.S. Suspects can be held for, though the establishment must feed an animal held for over 24 hours.[40]

V. Factual Background

A. Food Safety and Non-Ambulatory Disabled Pigs

1. Salmonella Spp. and Yersinia Enterocolitica Contamination

The European Food Safety Authority recently conducted a comprehensive risk assessment of the biological and chemical public health hazards associated with swine slaughter.[41] The resulting Scientific Opinion identifies *Salmonella* spp. as the most severe biological hazard in swine slaughter, and *Y. enterocolitica* as one of the four most potent hazards.[42] The Scientific Opinion also identifies ante-mortem contamination as the primary source of *Salmonella* spp. carcass contamination: "currently, about 70% of all carcass contamination results from the animals themselves being carriers."[43] And the Scientific Opinion finds that animals are more likely to become carriers the longer they are held in lairage.[44] The Scientific Opinion concludes that "as indicated in previous sections, keeping the pig transport-lairaging period as short as possible, including avoiding lairaging altogether . . . may be beneficial in terms of reducing associated cross-contamination of pigs with *Salmonella* spp. and *Y. enterocolitica*."[45]

The Scientific Opinion is consistent with other studies that have shown long lairage times increase the risk of *Salmonella* contamination; indeed, FSIS recognizes this issue. In its

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[33] 21 USC § 676.
[34] *Id*.
[35] *Id*. § 309.3(e).
[36] *See* 9 C.F.R. §§ 309.2(b), 309.2(n); Humane Handling and Slaughter of Livestock, FSIS Directive 6900.2, Rev. 2, at 14-15 (Aug. 15, 2011).
[37] 9 C.F.R. § 313.2(d)(3).
[38] Humane Handling and Slaughter of Livestock, FSIS Directive 6900.2, Rev. 2, at 3-4 (Aug. 15, 2011).
[39] *See* 9 C.F.R. § 309.2.
[40] 9 C.F.R. § 313.1(c).
[41] *See* Attachment 2 at 1-3.
[42] *Id*. at 12.
[43] *Id*. at 51.
[44] *Id.* at 50.
[45] *Id.* at 61.

December 2013 *Compliance Guideline for Controlling* Salmonella *in Market Hogs,* the agency noted that "the lairage is the most cost-effective stage to prevent cross-contamination that leads to rapid infection (Vander Gaag, 2004)."[46] In a study by Iowa State veterinary professor Scott Hurd, et al., pigs were placed in a simulated lairage environment – a holding pen with a slurry of water and *Salmonella*-contaminated feces on the floor. After just 2 hours, 80 percent of pigs contracted *Salmonella Typhimurium*, and all did after 6 hours of lairage.[47] The authors concluded, "Intervention at this [lairage] step of the production process may have a major impact on the safety of pork products."[48] In a later report, the same authors found that pigs were seven times more likely to acquire *Salmonella enterica* during transport and lairage than they were to acquire it on the farm.[49] They concluded, "The fact that 100% of pigs were infected after six hours of exposure identifies the need to avoid long lairage times."[50] Notably, in these trials, all of the pigs were able to stand, and these were controlled conditions.

A French study quantified the effect of increased lairage times on *Salmonella* infection. The researchers found that pigs held for 3-6 hours in lairage are three times more likely to contract *Salmonella* than those held for fewer than three hours.[51] Pigs held for over six hours are nine times more likely to catch *Salmonella*.[52] The authors concluded, "The effect of the time spent in lairage on *Salmonella* caecal contamination was identified as a crucial risk factor . . . The longer the time spent by the pigs in lairage, the higher was the risk for caecal contamination . . . At the slaughter-house, control measures should be implemented to reduce the time spent in lairage before slaughtering."[53]

NAD pigs endure more time in lairage than other pigs. There is no limit to how long a slaughter establishment can hold a NAD pig.[54] But establishments have a strong incentive to hold NAD pigs for as long as it takes them to rise, since a NAD pig that rises is worth at least $38 more than a pig that does not rise.[55] Slaughter establishments will also often wait until the end of the slaughter shift to slaughter NAD pigs separately—and the standard slaughter shift lasts 8 hours.[56] Based on the studies cited above, this increased lairage time will make NAD pigs at least 3-9 times more likely to contract *Salmonella*.

The Scientific Opinion also links *Salmonella* spp. and *Y. enterocolitica* to slaughtering dirty pigs, especially pigs covered in fecal matter. The Scientific Opinion recommends "ensuring through current *ante-mortem* inspection that only visually clean pigs . . . without observable abnormalities enter the routine slaughtering process."[57] Clean pigs are less likely to be

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[46] Attachment 58, available at http://www.regulations.gov/#!documentDetail;D=FSIS-2014-0002-0001.
[47] Attachment 10, H. Scott Hurd et al., *Rapid infection in market-weight swine following exposure to a Salmonella typhimurium-contaminated environment,* 62 AM. J. VET. RES. 1194-1197 (2001).
[48] *Id*.
[49] Attachment 11, H. Scott Hurd et al. *Salmonella enterical infections in market swine with and without transport and holding*, 68 APPL. ENVT'L. MICROBIOL 2376-81 (2002).
[50] *Id*.
[51] Attachment 12, Pierre-Alexandre Beloeil et al., *Impact of the Salmonella status of market-age pigs and the pre-slaughter process on Salmonella caecal contamination at slaughter*, 35 VET. RES. 513-530 (2004).
[52] *Id*.
[53] *Id*.
[54] *See* 9 C.F.R. § 309.2.
[55] Attachment 6.
[56] *See* 77 Fed. Reg. 15978.
[57] Attachment 1 at 69.

contaminated than dirty pigs because "microbial loads on skins of clean incoming pigs are reduced."[58] The Scientific Opinion further notes that "in case of pig batches from *Salmonella*- and *Y. enterocolitica*-positive farms being presented for slaughter, it could be assumed that the dirtier animals are with faecal material, the higher risk exists of cross-contamination of the slaughterline environment including the carcasses."[59]

NAD pigs are often dirty with fecal matter because NAD pigs cannot rise from the floor of slurry-filled holding pens. As *Meat and Poultry* magazine explains, "Lame animals spend more time lying down, which increases the likelihood they will be contaminated with fecal matter."[60] Swine fecal matter has been found to include the bacterial pathogens *Bacillus anthracis*, *Brucella* spp., *Campylobacter* spp., *Chlamydia* spp., [enteropathogenic] *Escherichia coli*, *Leptospira* spp., *Listeria monocytogenes*, *Mycobacterium* spp., *Salmonella* spp., and *Yersinia* spp.[61] As a result, NAD pigs are 16 times more likely to harbor antibiotic-resistant *Campylobacter* than ambulatory pigs.[62]

2. H1N1 Swine Influenza

Non-ambulatory pigs are more likely to carry swine influenza subtypes H1N1 and H3N2 than other pigs. A Pork Industry Institute-funded study compared NAD pigs and ambulatory pigs at slaughter establishments accounting for almost a fifth of U.S. pork production.[63] The researchers found that fully 53.8% of NAD pigs were actively infected with H1N1 and 51.9% were actively infected with H3N2.[64] A genetic analysis of the 2009 H1N1 pandemic revealed that six of the eight viral gene segments came from a hybrid swine/human/avian flu virus that was prevalent in the U.S. pork industry.[65] The Centers for Disease Control and Prevention estimates that the H1N1 pandemic sickened 60.8 million Americans, hospitalized 274,304, and killed 12,469.[66]

3. Other Pathogens Associated with NAD Pigs

Lameness – an abnormality common to NAD pigs – is a clinical symptom of several bacterial, prion, and viral diseases. These diseases include:

- *Listeria monocytogenes*, a bacterial infection that causes *Listeriosis*, which contributes to an estimated 28% of U.S. foodborne illness deaths,[67] presents as lameness in pigs.[68]

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[58] *Id*.
[59] *Id*. at 60.
[60] Attachment 13, quoted in Gene Bauston, *FDA: Prohibit the slaughter of downed animals*, 18 J. SUSTAINABLE AGRIC. 3-6 (2001).
[61] Attachment 14, Cherie J. Ziemer, *Fate and transport of zoonotic, bacterial, viral, and parasitic pathogens during swine manure treatment, storage, and land application*, 88 J. ANIM. SCI. E84-94 (2010).
[62] Attachment 4.
[63] The study was conducted at five large pig slaughter establishments across the Midwest. The plants account for 15-20% of U.S. pork production. *See* Attachment 3.
[64] By contrast, 34.8% of ambulatory pigs in the study had H1N1 swine influenza, and 26.1% had H3N2 swine influenza. *Id*.
[65] Attachment 15, Gavin J. D. Smith, et al. *Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic*, 459 NATURE 1122-25 (2009).
[66] Attachment 16, Sundar S. Shrestha et al., *Estimating the burden of 2009 pandemic influenza A (H1N1) in the United States (April 2009-April 2010)*, 52 CLIN. INFEC. DIS. S75-82 (2011).
[67] Attachment 17, Paul S. Mead et al., *Food-related illness and death in the United States*, 5 EMERG. INFECT. DIS. 607-625 (1999).
[68] Attachment 18, H. Scott Hurd et al. *Swine health impact on carcass contamination and human foodborne risk*, 143 PUBLIC HEALTH REPORTS 343-351 (2008).

- *Erysipelothrix rhusiopathiae*, a bacterial infection that can cause human septic arthritis, endocarditis, and meningitis, presents as lameness in pigs.[69]
- *Brucellosis*, one of the most common zoonotic diseases, presents as lameness in pigs.[70]
- *Porcine spongiform encephalopathy*, the pig equivalent to "mad cow disease," with links to deadly Creutzfeldt-Jakob disease, presents as "persistent recumbency with difficulty in rising."[71]
- *Arcanobacterium and Trueperella* (formerly known as *Actinomyces pyogenes*), bacterial infections that can cause human joint and bone infections, pneumonia, and fatal endocarditis, present as lameness in pigs.[72]
- *Streptococcus suis* and *Streptococcus equisimilis*, both potent occupational zoonoses for workers in the pork industry, present as lameness in pigs.[73]

The re-inspection of NAD pigs before slaughter is unlikely to spot these diseases associated with lameness. Former FSIS senior staff veterinarian Linda Detwiler notes that the underlying cause of a non-ambulatory condition "may be impossible to ascertain."[74] Bovine veterinarian Jim Reynolds of the University of California's School of Veterinary Medicine explains that even trained veterinarians find it nearly impossible to determine why a NAD animal cannot rise.[75] And FSIS notes, "the underlying reason for an animal's non-ambulatory condition cannot always be accurately ascertained when these animals are presented for slaughter."[76]

4. "Fatigued" Pigs: A False Distinction Invented by Industry.

The industry's response that most NAD pigs are merely "fatigued"[77] is both wrong and irrelevant. The industry defines "fatigued" pigs as all non-ambulatory pigs lacking "*obvious* injury, trauma, or disease."[78] First, this is a baseless distinction; pigs who are too sick or injured to stand are suffering, and they are far more likely to harbor disease than pigs who can walk, regardless of whether they may eventually stand. Second, both "fatigue" and other forms of NAD are caused by ill treatment, which violates the HMSA, as will be discussed further in the next section.

Additionally, most "fatigued" pigs display less-obvious symptoms of illness, internal injuries, or severe stress: skin discoloration (77%), muscle tremors (83%), and lameness

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[69] Attachment 19, R. Singh et al., *Swine erysipelas in a sow – a case report*, 26 INDIAN J. VET. MED. 156-7 (2006).
[70] Attachment 20, Krzysztof Szulowski et al., *Brucellosis in pigs*, 59(4) MEDYCYNA WETERYNARYJNA 283 (2003).
[71] Attachment 21, G.A. Wells et al., *Studies of the transmissibility of the agent of bovine spongiform encephalopathy to pigs*, 84 J. GEN. VIROLOGY 1021-31 (2003).
[72] Attachment 22, A. Zankl et al., *Paralysis in fattening pigs due to bacterial brain stem meningoencephalitis caused by ascending alveolitis and maxillary sinusitis*, 5 TIERÄRZTLICHE PRAXIS GROßTIERE 354-355 (2007).
[73] Attachment 23, D. Chennells, *An unusual outbreak of Streptococcus suis type 2*, 36 PIG J. 203-7 (1996); Attachment 24, Thomas J. Fangman and W.H. Fales, *Multiple Streptococcus species implicated in lameness and central nervous system signs in piglets and sows*, 7 SWINE HEALTH PROD. 113-115 (1999).
[74] L.A. Detwiler, Comments on: Prohibition of the use of specified risk materials for human food and requirements for the disposition of non-ambulatory disabled cattle, Docket 03-025IF, at 4 (May 7, 2004), *available at* http://www.fsis.usda.gov/OPPDE/Comments/03-025IF/03-025IF-634.pdf.
[75] Attachment 25, P. Hisey, *USDA plans to ease restrictions on slaughter of downer cattle*, meatingplace.com (Apr. 21, 2005), *available at* http://www.iatp.org/news/usda-plans-to-ease-restrictions-on-slaughter-of-downer-cattle.
[76] 72 Fed. Reg. 38703 (Jul. 13, 2007).
[77] *See*, *e.g.*, Attachment 43, Comments of the National Pork Producers Council, signed by Doug Wolf, Document ID FSIS-2010-0041-5067 (Apr. 8, 2011).
[78] *Id.* (dividing all non-ambulatory pigs into two categories: "injured" and "fatigued").

(100%).[79] All three of these symptoms could indicate the presence of severe illnesses—for instance, the only visible symptom of *Porcine spongiform encephalopathy* (Mad Pig Disease) can be "persistent recumbency with difficulty in rising." [80]

Moreover, even "fatigued" pigs who are not ill when they enter holding pens are more likely to be ill when they leave them. The Scientific Opinion shows that any additional lairage time increases the risk that pigs will contract *Salmonella* spp. and *Y. enterocolitica*. "Fatigued" pigs may actually be held in lairage even longer than "injured" pigs because they are more likely to regain the ability to walk. And while they are in lairage, "fatigued" pigs come into as much contact with fecal matter on the floor of dirty holding pens as all NAD pigs. As a result, "fatigued" pigs will harbor *Campylobacter* and other pathogens at significantly higher rates than other pigs.[81]

B. Inhumane Handling and NAD Pigs

1. FSIS' Evolving Position on NAD Livestock

FSIS has increasingly recognized that allowing the slaughter of NAD livestock encourages inhumane handling. In 2009, FSIS required that all NAD mature cattle be promptly euthanized.[82] FSIS explained that allowing the slaughter of NAD cattle that rise "may have encouraged . . . livestock producers to hold ill or injured cattle from slaughter longer in an attempt to allow them to sufficiently recover to pass the initial ante-mortem inspection before collapsing."[83] FSIS further explained that the practice "may have created an incentive for establishments to inhumanely force these animals to rise."[84]

Last year, FSIS granted a Humane Society of the United States (HSUS) petition requesting the prompt euthanasia of NAD veal calves offered for slaughter.[85] FSIS explained that the current policy allowing NAD veal calves to be slaughtered after re-inspection "may create an incentive for establishments to inhumanely force non-ambulatory veal calves to rise and for veal calf producers to send weakened calves to slaughter."[86] FSIS stated that its new policy will "improve the Agency's inspection efficiency" and "improve compliance with the HMSA and the humane slaughter implementing regulations."[87]

FSIS' evolving position is consistent with the Agricultural Marketing Service's (AMS) humane handling standards. AMS' contracts prohibit the purchase of meat from NAD animals, including NAD pigs. AMS explains: "The logic behind the prohibition of non-ambulatory, disabled livestock was to ensure the humane treatment of animals by their being managed and handled in a manner that would enable them to walk into the facility's stunning area."[88] In 2008,

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[79] Attachment 6.
[80] Attachment 21.
[81] *See* Attachment 18.
[82] 74 Fed. Reg. 11464.
[83] *Id.* at 11465.
[84] *Id*. at 11463-64.
[85] *See* Attachment 1.
[86] *Id*. at 1.
[87] *Id*.
[88] Attachment 26, Lloyd Day, Administrator, USDA Agriculture Marketing Service, Informational Memorandum for the Undersecretary, at 2 (May 15, 2008) ("It is important to note that the prohibition of non-ambulatory, disabled livestock from AMS meat purchases was implemented solely to ensure the humane treatment of animals.").

AMS strengthened this policy – a move that an AMS spokesperson said was "directly aimed at ensuring there is not a repeat of the conditions animals were subjected to at Hallmark/Westland."[89]

FSIS' evolving position is also consistent with Congress' actions. In 2001, the Senate Committee on Agriculture, Nutrition, and Forestry was considering an amendment to the Farm Bill that would ban the slaughter of downed livestock. In its report on the issue, the Committee found "that the transportation and marketing of downed livestock can be inhumane, and that meat from downed livestock may involve increased food safety risks."[90] Congress subsequently directed USDA to report on the scope, causes, and humane handling implications of slaughtering NAD livestock, and consider "regulations to provide for the humane treatment, handling and disposition of non-ambulatory livestock."[91] Since then, FSIS has repeatedly stated that it plans to "evaluate measures that may be necessary to ensure the humane handling of other non-ambulatory disabled livestock species."[92]

2. How Inhumane Handling Causes Pigs to Become Non-Ambulatory

Industry studies show that inhumane handling causes pigs to become non-ambulatory. The American Meat Institute cites data showing that 34% of pigs become fatigued when subject to "aggressive handling with hot shots," 15% do when subject to "aggressive handling with paddles," and just 2% do when subject to "gentle handling with paddles."[93] An Elanco Animal Health-funded study found that pigs held in small pens and not presorted are twice as likely to become non-ambulatory as pigs presorted and held in large pens.[94] Another study shows that when workers use electrical prods on over 60% of pigs (instead of on fewer than 10%), four times more pigs become non-ambulatory.[95]

Inhumane production practices also cause pigs to become non-ambulatory. Dr. Temple Grandin observes, "Sow condition is declining especially on the largest farms . . . Slaughter plant managers have reported that the condition of sows from some farms has become worse."[96] She attributes this deterioration to abuse of the growth stimulant Paylean,[97] and producers allowing "old, weak, emaciated sows . . . to deteriorate into a weakened condition . . . likely to become

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[89] Attachment 27, Email of Farm Bureau representative (Kelli@fb.org) to Craig Morris, AMS (May 29, 2008) *quoting* Meatingplace.com article by Lisa M. Keefe.

[90] The Committee recommended passage of a provision to require the immediate euthanasia or veterinary care of all NAD livestock. Attachment 28, Senate Committee on Agriculture, Nutrition, and Forestry, S. Report 107-117, to accompany S. 1731 (Dec. 7, 2001). The Senate passed this provision as part of the 2002 Farm Bill, but it was removed in conference.

[91] Congress requested that USDA "investigate and submit to Congress a report on — (1) the scope of non-ambulatory livestock; (2) the causes that render livestock non-ambulatory; (3) the humane treatment of live non-ambulatory livestock; and (4) the extent to which non-ambulatory livestock may present handling and disposition problems for stockyards, market agencies, and dealers." Congress also requested, "Based on the findings of the report, if the Secretary determines it necessary, the Secretary shall promulgate regulations to provide for the humane treatment, handling and disposition of non-ambulatory livestock." 7 U.S.C. § 1907(b).

[92] 76 Fed. Reg. 6573. *See also* 72 Fed. Reg. 38722 and 74 Fed. Reg. 11464.

[93] Attachment 7 at slide 15.

[94] Attachment 29, Johnson, A. K., et al., *Effects of facility system design on the stress responses and market losses of market weight pigs during loading and unloading*, 26 PROF. ANIMAL SCIENTIST 9-17 (2010), *available at* http://pas.fass.org/content/26/1/9.full.pdf+html.

[95] Temple Grandin, LIVESTOCK HANDLING AND TRANSPORT at 7 (3d ed. 2007).

[96] Attachment 30, Temple Grandin, Preventing Crippled and Non-ambulatory Animals, at 1, *available at* http://www.grandin.com/welfare/lci/lci.html

[97] Attachment 31, Temple Grandin, *Perspectives on transportation issues; the importance of having physically fit cattle and pigs*, 79 J. ANIM. SCI. E201-E207 (2001).

downers."[98] She further notes that producers have bred pigs for fast growth, not good welfare: "Modern hydrid pigs—selected for rapid growth, high leanness and extreme muscularity—are often prone to stress that causes the pig to become nonambulatory, to die during transport and/or preslaughter handling."[99]

Similarly, inhumane transportation practices cause pigs to become non-ambulatory. As early as 1961, USDA observed that more pigs die when trucked long distances.[100] Since then, the industry has only increased long-distance trucking, often trucking pigs from production facilities in Nebraska and Texas to California for slaughter. Transporters also continue to overcrowd pigs in trucks, despite research showing that pigs given one more square foot of space are seven times less likely to become non-ambulatory.[101]

These practices continue because there are weak financial incentives to keep pigs ambulatory. Current regulations allow establishments to use electrical prods to force NAD pigs to rise before their ante-mortem inspection,[102] or to hold them indefinitely until they rise after their inspection.[103] In either case, the establishment gains the full slaughter value of the pig.[104] And even if the pig remains non-ambulatory, it is still worth roughly 70% the value of an ambulatory pig. (By contrast, if establishments had to condemn NAD pigs they would lose money on each pig they caused to become non-ambulatory, due to labor, segregation, and disposal costs.[105]) As a result, the prevalence of non-ambulatory pigs has tripled since 1933-34, when just 0.16% of pigs arrived at slaughter establishments non-ambulatory; today, an estimated 0.44% do.[106]

3. The Inhumane Handling of NAD Pigs

FSIS records show that some establishments continue to inhumanely handle NAD pigs. Since FSIS began publishing statistics in 2009, the number of non-compliance records for humane handling has increased annually.[107] Although the number of inspection procedures performed has also increased, an Office of the Inspector General (OIG) report suggests these

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[98] Attachment 6.

[99] Attachment 33, Temple Grandin, Effect of Transport on Meat Quality and Animal Welfare of Cattle, Pigs, Sheep, Horses, Deer, and Poultry, *available at* http://www.grandin.com/behaviour/effect.of.transport.html.

[100] Attachment 34, Joseph E. Rickenbacker, *Loss and damage in handling and transporting hogs*, USDA Farmer Cooperative Service, at 17 (1961) ("Possibility of death in transit was far greater by truck than by rail. This was true, regardless of distance shipped, but was especially true where shipments moved really long distances.")

[101] 1.5% of pigs given 4.26 square feet of space became non-ambulatory, while just 0.2% of pigs given 5.26 square feet of space did. Attachment 35, M.J. Ritter, et al., *Effects of distance moved during loading and floor space on the trailer during transport on losses of market weight pigs on arrival at the packing plant*, 85 J. ANIM. SCI. 3454-3461 (2007).

[102] *See* "FSIS Dir. 6100.1 Use of Electric Prod #1" (updated June 11, 2013), *available at* http://askfsis.custhelp.com/app/answers/detail/a_id/803/~/fsis-dir-6100.1-use-of-electric-prod-%231 ("[B]ecause not all recumbent livestock are non-ambulatory disabled. FSIS Directive 6100.1, Rev.1, does not prohibit a low-voltage electric prod, used as little as possible, to stand healthy recumbent animals provided such use is kept to a minimum.")

[103] *See* 9 C.F.R. § 313.1.

[104] Attachment 6.

[105] *Id*. at 409.

[106] *Id*.

[107] Data is only available data from 2009 until the end of Q2 2013. FSIS inspectors issued 504 humane handling non-compliance records from Q3 2009 to Q2 2010; 572 from Q3 2010 to Q2 2011; 605 from Q3 2011 to Q2 2012; and 649 from Q3 2012 to Q3 2013. *See* FSIS Humane Handling Quarterly Enforcement Reports, *available at* http://www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/regulatory-enforcement/quarterly-enforcement-reports.

records still underreport the scale of humane handling violations.[108] In the less than 30 minutes that OIG observed the stunning process at five slaughter establishments, OIG witnessed several egregious violations of HMSA that went unreported by FSIS inspectors.[109] OIG also found that establishments were seldom suspended for egregious humane handling violations of NAD pigs. For example,

> [A]n inspector observed a plant employee in a skid loader (similar to a fork lift) attempting to move a non-ambulatory hog. The employee repeatedly drove into the live hog, pushing it with the skid loader, attempting to lift the hog into the loader bucket. On one attempt, the operator was able to lift the back half of the hog into the loader, but the load was so imbalanced that the hog fell out of the loader and onto the concrete floor. The inspector only issued an NR.[110]

The OIG report is consistent with other evidence of inadequate FSIS supervision of the handling of NAD pigs, which may be a result of understaffing and underfunding, as well as too many agency tasks and priorities. Whatever the cause, the situation is dire, as indicated by a 2010 Government Accountability Office audit that found that inspectors did not take consistent enforcement actions when faced with humane handling violations.[111] That year, FSIS inspector Dr. Dean Wyatt testified before Congress that slaughter establishments screened off unloading areas so that FSIS could not document humane handling violations.[112] He also testified that he had repeatedly been told not to prepare noncompliance records or take other enforcement actions, even after witnessing workers punching a NAD pig in the face and nose 8-12 times.[113]

But FSIS records still present a snapshot of the inhumane handling of NAD pigs at slaughter establishments. At Carolina Pride Foods on January, 9, 2013, FSIS inspectors observed a pig become non-ambulatory as workers were trying to force her down an alleyway.[114] After the pig fell to the ground, the workers continued to drive another pig over the top of the non-ambulatory pig.[115] The ambulatory pig began running, trampling the non-ambulatory pig.[116] FSIS suspended the establishment, but the next day held the suspension in abeyance, allowing the establishment to resume operations.[117]

Just 16 days later, at the same establishment, a worker put a knock hole in a NAD pig's head and loaded the pig—bleeding and fully conscious—into a cart without the FSIS inspector noticing.[118] The worker then wheeled the disabled pig to another pen, where another worker

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[108] Attachment 36, Food Safety and Inspection Service - Inspection and Enforcement Activities at Swine Slaughter Plants, USDA Office of the Inspector General (May, 2013), *available at* http://www.usda.gov/oig/webdocs/24601-0001-41.pdf.
[109] *Id*. at 23-24.
[110] *Id*. at 24-25.
[111] Attachment 37, Humane Methods of Slaughter Act, Actions Are Needed to Strengthen Enforcement, GAO-10-203 (Feb. 2010).
[112] Attachment 38, Statement of Dr. Dean Wyatt, Continuing Problems in USDA's Enforcement of the Humane Methods of Slaughter Act, Domestic Policy Subcommittee, Oversight and Government Reform Committee at 4 (Mar. 4, 2010), *available at* http://www.foodwhistleblower.org/storage/documents/dean_wyatt_testimony.pdf.
[113] *Id*.
[114] Attachment 39, FSIS Notice of Suspension, Carolina Pride Foods, Inc. (Jan. 9, 2013).
[115] *Id*.
[116] *Id*.
[117] Attachment 40, FSIS Notice of Suspension Held in Abeyance, Carolina Pride Foods, Inc. (Jan. 10, 2013).
[118] Attachment 41, FSIS Notice of Reinstatement of Suspension, Carolina Pride Foods, Inc. (Jan. 25, 2013).

shackled the pig's leg and began to drag the conscious pig to the hanging area.[119] At this point the inspector intervened, rescuing the pig, which was still rhythmically breathing and blinking her eyes, and ensured the pig was euthanized.[120] The inspector then allowed the pig to be shackled, hung, and processed for human consumption.[121] FSIS reinstated its suspension of the plant, but held it in abeyance two working days later, allowing slaughter operations to resume.[122]

The Agency knows that cruelty to downed pigs is at least as severe a problem as cruelty to NAD calves. An email from Dr. Keith Gilmore to Daniel Engeljohn, Mary Porretta, et al., notes that when Dr. Gilmore pulled a year's worth of NAD Noncompliance Reports, he found 18 instances of illegal cruelty to NAD pigs and only 1 instance of cruelty to an NAD calf. He noted that "[a]lthough the market hog category has the highest number of animals slaughtered … they also have a disproportionate number of NR's for inhumane treatment of downer animals."[123]

VI. Argument

FSIS should prohibit the slaughter of NAD pigs to improve compliance with its food safety and humane handling mandates. FSIS is statutorily required to ensure that adulterated meat is not sold, and that animals are slaughtered in accordance with the HMSA.

Furthermore, FSIS' current policy is arbitrary because: 1) there is no valid reasons for treating NAD pigs differently from NAD mature cattle and veal calves; and 2) it is inconsistent with other USDA policies (e.g., AMS's ban on the slaughter of nonambulatory pigs). "A long line of precedent has established that an agency action is arbitrary when the agency offer[s] insufficient reasons for treating similar situations differently."[124]

For precisely the same reasons that FSIS requires immediate euthanasia of cattle, it must promulgate a similar requirement for NAD pigs. This reform would reduce the risk of meat contamination, end the uncertainty about how to deal with NAD pigs, improve the efficiency of the inspection process, and decrease the multiple incentives for inhumane treatment of animals on farms, during transport, and at slaughter.

FSIS should therefore require that all NAD pigs be condemned and promptly euthanized.

A. FSIS Should Prohibit the Slaughter of NAD Pigs to Fulfill its Food Safety Mandate

FSIS amended 9 CFR 309.3(e) to prohibit the slaughter of NAD mature cattle, in part, "to ensure that animals that may be unfit for human food do not proceed to slaughter and to improve the effectiveness and efficiency of the inspection system.''[125] FSIS has also agreed to amend 9 CFR 309.13(b) to require the prompt euthanasia of NAD veal calves to "improve the Agency's inspection efficiency by eliminating the time that FSIS inspection personnel spend assessing and

[119] *Id*.
[120] *Id*.
[121] *Id*.
[122] Attachment 42, FSIS Notice of Reinstatement of Suspension Held in Abeyance, Carolina Pride Foods, Inc. (Jan. 29, 2013).
[123] Email from Keith Gilmore to Daniel Engeljohn, Mary Porretta, et al. (December 04, 2012 10:07 PM).
[124] *Shalala*, 192 F.3d at 1022 (*quoting Transactive Corp.,* 91 F.3d at 237). *See also Airmark Corp. v. FAA*, 758 F.2d 685, 691 (D.C.Cir.1985) ("Deference to agency authority or expertise . . . 'is not a license to . . . treat like cases differently.'") (*quoting United States v. Diapulse Corp.*, 748 F.2d 56, 62 (2d Cir.1984)).
[125] 74 Fed. Reg. 11463.

supervising the treatment of NAD veal calves."[126] Because more downed pigs are slaughtered annually than downed cattle were slaughtered at the time of the ban, a requirement that NAD pigs be condemned would achieve even greater food safety and animal handling goals.

A prohibition on slaughtering NAD pigs would ensure that animals unfit for human food do not proceed to slaughter. The studies outlined above show that NAD pigs are disproportionately likely to harbor H1N1 swine influenza, *Campylobacter*, *Salmonella* spp., *Y. enterocolitica*, and other dangerous pathogens. And as would be expected, ""[l]ive animals that carry *Salmonella* spp. are 3–4 times more likely to end up as a positive carcass than *Salmonella*-free animals."[127]

B. FSIS Should Prohibit the Slaughter of NAD Pigs to Improve Efficiency.

As with the rule banning the slaughter of NAD adult cattle and coming rule to do the same for calves, a uniform rule would end the current uncertainty about how to deal with NAD pigs that may harbor such latent severe illnesses. FSIS required that all NAD mature cattle be promptly euthanized in part to "reduce uncertainty in determining the proper disposition of non-ambulatory cattle,"[128] and it used the same reasoning in granting the petition to do the same for calves.[129] Similarly, a requirement that all NAD pigs be promptly euthanized would reduce the uncertainty of FSIS inspectors and slaughter establishments confronted with lame pigs that may harbor various pathogens, including porcine spongiform encephalopathy.[130] Current regulations foster uncertainty because they require FSIS inspectors to make a quick visual diagnosis of whether a non-ambulatory pig is diseased. Yet, as former FSIS senior staff veterinarian Linda Detwiler notes, the cause of a non-ambulatory condition "may be impossible to ascertain."[131]

Additionally, a prohibition on slaughtering NAD pigs would improve the effectiveness and efficiency of the inspection system. FSIS noted that prohibiting the slaughter of NAD cattle meant that inspectors would not need to "spend [time] determining whether or not an animal can be tagged as 'U.S. Suspect,' proceed to slaughter, and then re-inspected after slaughter, thereby increasing the time inspection program personnel can focus on other inspection activities."[132] Current regulations similarly force FSIS inspectors to spend time monitoring incoming shipments for NAD pigs, deciding whether to tag them as "U.S. Suspect," and "rigorously" re-inspecting them after slaughter; and according to USDA's letter to Farm Sanctuary, animals are not allowed to be slaughtered "until the animal has received addition inspection by a FSIS veterinarian."[133] This is time not spent on FSIS' priorities of monitoring humane handling and slaughter, and preventing meat contamination.[134] This lost efficiency will become even more important if USDA develops new food safety rules that emphasize moving FSIS inspectors to the

[126] Attachment 1 at 1.
[127] Attachment 2 at 51.
[128] 74 Fed. Reg. 11463.
[129] See attachment 1 ("FSIS has concluded that prohibiting slaughter of all NAD veal calves would improve the Agency's inspection efficiency by eliminating the time that FSIS inspection program personnel spend assessing and supervising the treatment of NAD veal calves").
[130] See attachment 21.
[131] Detwiler, *supra* note 64.
[132] 2009 Final Rule, 74 Fed. Reg. at 11463.
[133] Attachment XX.
[134] FSIS Annual Report, 2013 Explanatory Notes, at 47 ("Preventing harm to consumers is our first priority") and at 52 ("USDA considers humane methods of handling animals and humane slaughter operations a priority"), *available at* http://www.the-inspector.com/FY2013[1].pdf.

end of the line at pig slaughter establishments.[135] It is important that the inspectors remaining on ante-mortem inspection duty can focus their time on humane handling enforcement, rather than on the time-consuming process of supervising NAD pigs.

C. FSIS Should Require the Prompt Euthanasia of NAD Pigs to Fulfill its Humane Handling Mandate

HMSA requires ‘‘handling of livestock in connection with slaughter . . . be carried out only by humane methods.”[136] It directs USDA “to designate methods . . . of handling in connection with slaughter which, with respect to each species of livestock, conform to [this] policy.” Congress intended to “establish as a national policy that livestock should be slaughtered and handled in connection with slaughter only by the ‘most humane practicable methods.’”[137] In 2002, Congress further directed USDA to consider “regulations to provide for the humane treatment, handling and disposition of non-ambulatory livestock.”[138] FSIS has already prohibited the slaughter of NAD cattle because “humane handling requires that such cattle be promptly euthanized,”[139] and it has used similar reasoning in agreeing to extend the ban to calves.[140]

The current policy fails to ensure the “humane treatment, handling, and disposition” of NAD pigs for at least five independent reasons. First, it creates an incentive for slaughter establishments to inhumanely force NAD pigs to rise. FSIS has acknowledged that allowing the slaughter of NAD cattle “may have created an incentive for establishments to inhumanely force these animals to rise.”[141] Similarly, allowing the slaughter of NAD pigs creates an incentive for establishments to force NAD pigs to rise because NAD pigs that rise are worth $88 to $126 more per pig than NAD pigs that do not, while saving the establishment labor, segregation, and disposal costs.[142] This encourages establishments to excessively shock, prod, kick, shunt, and drag NAD pigs to force them to rise, in violation of FSIS regulations and the FMIA.[143] As FSIS has recognized for mature cattle and veal calves, the only way to end this incentive to inhumanely force NAD pigs to rise is to require their prompt euthanasia.

Second, the current policy allows establishments to inhumanely hold suffering sick and injured pigs. NAD pigs are routinely held for hours to see if they will rise, or until the shift ends so they can be slaughtered separately. During this period they are typically held without veterinary care, analgesics, or food. This “[w]aiting can prolong a disabled animal’s suffering,”[144] in clear violation of federal law.[145] And as Dr. Gilmore discovered, NAD pigs

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[135] *See* Attachment 36.
[136] 7 U.S.C. 1902.
[137] Attachment 9.
[138] 7 U.S.C. 1907(b).
[139] *See* 74 Fed. Reg. 11464.
[140] Attachment 1.
[141] *Id*.
[142] *See* Attachment 5.
[143] *See* 9 C.F.R. § 313.2(b) (“Electric prods . . . shall be used as little as possible”); *id.* § 313.2(d)(2) (“The dragging of disabled animals and other animals unable to move, while conscious, is prohibited”); FSIS Notice 21-09, at 2-3 (describing “excessive beating or prodding of . . . non-ambulatory animals” and “dragging conscious animals” as “egregious” cruelty); Ante-Mortem Livestock Inspection, FSIS Directive 6100.1, Rev. 1, at 6 (Apr. 16, 2009) (“FSIS does not consider forcing an animal to stand or ambulate by kicking or prodding (e.g., electrical prodding) to be humane.”)
[144] Attachment 44, Dr. Temple Grandin, Recommended Animal Handling Guidelines Audit Guide: A Systematic Approach to Animal Welfare, American Meat Institute Foundation, at 29 (2010), *available at* http://www.animalhandling.org/ht/a/GetDocumentAction/i/58425.
[145] *See, e.g.,* 7 U.S.C. 1902.

suffer not just from this clear violation of the Humane Slaughter Act; they also suffer disproportionately from inhumane treatment so severe that it leads to NRs.[146]

Third, the current policy creates an incentive for producers to hold animals even if they are sick or injured, and then to send these weakened animals to slaughter, rather than euthanizing them on the farm. In banning the slaughter of NAD cattle, FSIS noted the prior policy "may have encouraged . . . livestock producers to hold ill or injured cattle from slaughter longer," which "increases the chances that they will go down and then be subjected to conditions that are inhumane."[147] The Agency reasoned similarly with regard to NAD calves, stating that "the provision that allows veal calves to be set aside to be warmed or rested may create an incentive for establishments to inhumanely force non-ambulatory veal calves to rise and for veal calf producers to send weakened calves to slaughter."[148] Similarly, the current policy encourages pig producers to hold breeding pigs, especially breeding sows, for longer before sending them to slaughter in weakened condition. Dr. Temple Grandin notes that this concern is not hypothetical. Indeed, pig producers already allow "old, weak, emaciated sows . . . to deteriorate into a weakened condition . . . likely to become downers."[149]

Fourth, the current policy contradicts the judgment of another branch of USDA, AMS, about humane treatment. AMS prohibits purchasing meat from NAD pigs "to ensure the humane treatment of animals by their being managed and handled in a manner that would enable them to walk into the facility's stunning area."[150] Thus a branch of USDA has recognized that slaughtering NAD pigs is inconsistent with humane treatment. FSIS' current policy is therefore arbitrary because it treats the same situation (NAD pigs) differently from AMS without justification.[151]

Fifth, the current policy creates an incentive to inhumanely transport and handle pigs. The American Meat Institute cites data showing that 34% of pigs became "fatigued" when subject to "aggressive handling with hot shots," while just 2% did when subject to "gentle handling with paddles."[152] The National Pork Board transport manual shows that more than twice as many pigs become "fatigued" when they are transported at freezing temperatures.[153] And several recent studies have linked pigs becoming non-ambulatory to over-crowding in transport,[154] excessive waiting times at slaughter establishments,[155] and inhumane handling.[156]

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[146] Attachment XX.
[147] 74 Fed. Reg. 11465.
[148] Attachment 1.
[149] Attachment 6.
[150] Attachment 26.
[151] *See SKF USA Inc. v. United States*, 263 F.3d 1369, 1382 (Fed. Cir. 2001) (holding that agency action is arbitrary when it treats similar situations differently without a reasoned justification).
[152] Attachment 7 at Slide 15.
[153] Attachment 45, National Pork Board, TRANSPORT QUALITY ASSURANCE HANDBOOK (2008), *available at* http://www.pork.org/filelibrary/TQAAdvisor/TQA4Manual.pdf.
[154] *See* Attachment 46, R. F. Fitzgerald, et al., *Factors associated with fatigued, injured, and dead pig frequency during transport and lairage at a commercial abattoir*, 87 J. ANIM. SCI. 1156-1166 (2009), *available at* http://www.journalofanimalscience.org/content/87/3/1156.long.
[155] Attachment 47, M.J. Ritter et al., *Effect of floor space during transport of market-weight pigs on the incidence of transport losses at the packing plant and the relationships between transport conditions and losses*, 84 J. ANIM. SCI. 2856-64 (2006).
[156] *See* Attachment 48, Dr. Temple Grandin, The Effect of Economics on the Welfare of Cattle, Pigs, Sheep, and Poultry (updated Apr., 2013) (collecting studies), *available at* http://www.grandin.com/welfare/economic.effects.welfare.html.

A requirement that establishments promptly euthanize NAD pigs would encourage reform in all five of these areas because NAD pigs would become worthless. It would thus encourage improved handling for all pigs.

D. FSIS Cannot Distinguish the Slaughter of NAD Pigs from the Slaughter of NAD Cattle and Calves

FSIS has found that requiring the prompt euthanasia of NAD mature cattle and veal calves improves compliance with HMSA and FMIA, both because it decreases cruelty directly and because it makes it easier for inspectors to do their jobs, thus increasing compliance with all aspects of their oversight responsibilities.[157] FSIS must therefore require the prompt euthanasia of NAD pigs too, unless it can show valid reasons to "treat [these] like cases differently."[158] The agency cannot do so.

1. A Prompt Euthanasia Requirement Would Improve Humane Handling

Given that FSIS has found that HMSA requires the prompt euthanasia of NAD cattle and calves,[159] it must find HMSA requires the prompt euthanasia of NAD pigs, unless it can provide sufficient reasons for treating these similar situations differently.[160] The pork industry has attempted to distinguish NAD pigs from other NAD livestock by labeling them "fatigued."[161] FSIS adopted this distinction in its response to Farm Sanctuary's petition, distinguishing NAD cattle on the basis that they become non-ambulatory because dairy producers send to slaughter "weakened cattle," more likely to "go down and then be subject to inhumane conditions."[162] The response distinguished NAD calves on the basis that they become non-ambulatory due to "veal production practices customary in the United States," which render calves so debilitated that "further handling necessary for slaughter would be inhumane."[163] By contrast, the response asserts, "Because healthy pigs may go down at slaughter because of a temporary metabolic condition, which is unrelated to on-farm practices, prohibiting the slaughter of non-ambulatory pigs at slaughter is unlikely to improve practices prior to slaughter or affect humane handling at slaughter."[164]

This distinction does not survive scrutiny: Pigs become non-ambulatory for reasons effectively identical to those that afflict mature cattle and calves: producers sending weakened breeding sows to slaughter and using customary production practices that debilitate pigs. Dr. Temple Grandin notes: "The industry needs to fix problems with downed, fatigued market-weight pigs. *It is a problem that can be solved and the corrections must be made at the farms*."[165] Just as dairy producers hold cattle until they become weak, pork producers hold breeding sows to produce extra litters until they become "old, weak, emaciated sows . . . [that] deteriorate into a

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[157] *See* Attachment 1 and 74 Fed. Reg. 11464.
[158] *Airmark Corp.*, 758 F.2d at 691 ("Deference to agency authority or expertise . . . 'is not a license to . . . treat like cases differently.'") (*quoting Diapulse Corp.*, 748 F.2d at 62).
[159] *See* Attachment 5 (explaining that banning the slaughter of NAD calves would "improve compliance with the HMSA and the humane slaughter implementing regulations"); 2009 Final Rule, 74 Fed. Reg. 11464 (requiring the immediate euthanasia of NAD cattle because "humane handling requires that such cattle be promptly euthanized").
[160] *See Transactive Corp*., 91 F.3d at 237 ("A long line of precedent has established that an agency action is arbitrary when the agency offered insufficient reasons for treating similar situations differently.")
[161] *See* Attachment 43.
[162] Attachment 49 at 2.
[163] *Id*.
[164] *Id*. at 3.
[165] Attachment 56 (emphasis added).

weakened condition . . . likely to become downers."[166] And just as veal producers' production practices debilitate calves, pork producers' production practices debilitate pigs, especially the practices of breeding "lean hybrid pigs [with] terrible leg conformation," "rough handling and electric prod use," and the "indiscriminant use of Paylean."[167]

Like mature cattle and calves, pigs also become non-ambulatory due to inhumane handling and poorly aligned incentives for slaughter establishments. The American Meat Institute animal handling audit counts the "[n]umber of non-ambulatory pigs on the trailer" as evidence of poor handling,[168] as does the pork industry's Transport Quality Assurance program.[169] Dr. Grandin documents that pork production plants with the right incentives have reduced the number of "fatigued" pigs from 10-20 per hour to one per hour by improving pig genetics and handling, and reducing the use of ractopamine.[170] If "fatigued" pigs were experiencing a "temporary metabolic condition . . . unrelated to on-farm practices," plants could not reduce their numbers by 90-95% by altering these on-farm and on-plant practices.

Indeed, the American Veterinary Medical Association (AVMA) rejects the industry's claim that NAD pigs are experiencing a "temporary metabolic condition . . . unrelated to on-farm practices." In its new Draft Guidelines on the Humane Slaughter of Animals, AVMA focuses on on-farm factors in its section on preventing NAD pigs.[171] AVMA notes that breeding pigs for rapid growth, and overfeeding gilts, causes degenerative joint disorders and neurological disorders affecting the spinal cord.[172] It finds that feeding pigs "[h]igh doses of the beta-agonist ractopamine may contribute to downers."[173] It notes that "pigs need exercise to increase muscular strength and to develop proper agility" – something that most producers deny breeding sows through the use of gestation and farrowing crates.[174] And AVMA observes that producers' use of concrete slatted floors, instead of solid floor with soft bedding, causes pigs to develop foot and leg problems that make them vulnerable to collapsing at slaughter.[175]

Moreover, once pigs become non-ambulatory, they are vulnerable to inhumane handling regardless of the cause of their disability. FSIS found that allowing the slaughter of cattle non-ambulatory for any reason "created an incentive for establishments to inhumanely force these animals to rise."[176] And FSIS has specifically found that allowing the slaughter of calves "non-ambulatory because they are *tired* or cold" created incentives to inhumanely handle these animals.[177] Similarly, allowing the slaughter of NAD pigs, regardless of whether they are non-ambulatory due to disease or fatigue, creates an incentive for slaughter establishments to inhumanely force them to rise, and for producers to send weakened sows to slaughter.

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[166] Attachment 6.
[167] Attachment 56.
[168] Attachment 44 at 60.
[169] Attachment 45 at 43.
[170] *Id*.
[171] *See* Attachment 57, AVMA Draft Guidelines for the Humane Slaughter of Animals.
[172] *Id*. at 137, 139.
[173] *Id*. at 139-40.
[174] *Id*. at 139.
[175] *Id*.
[176] 74 Fed. Reg. 11463.
[177] Attachment 1 at 1 (emphasis added).

2. A Prompt Euthanasia Requirement for NAD Pigs Would Improve Food Safety

A prohibition on the slaughter of NAD pigs would reduce food safety risks and improve FSIS inspection efficiency. NPPC argues that a ban on the slaughter of NAD livestock is unnecessary because the current case-by-case inspections work.[178] FSIS adopted this argument in its response to the Farm Sanctuary petition, arguing, "FSIS veterinarians are trained to recognize animal diseases that require condemnation" and conduct "rigorous post-mortem inspection" on all NAD livestock carcasses.[179]

But FSIS has previously rejected an identical argument by industry. Before Hallmark/Westland, the industry argued that "prohibiting the slaughter of all non-ambulatory cattle for human food is overly broad and not necessary to protect the public."[180] The industry reasoned that "veterinarians are able to readily discern through ante-mortem or post-mortem inspection whether an animal has suffered an acute injury or is affected with a pathological condition."[181] But FSIS soundly rejected that claim, finding that "the underlying reason for an animal's non-ambulatory condition cannot always be accurately ascertained when these animals are presented for slaughter."[182] FSIS also found that post-mortem inspections could not compensate for slaughtering cattle at heightened risk of infection.[183] FSIS later explained, "The events at the Hallmark/Westland establishment demonstrate that FSIS inspection personnel are not always notified when cattle become non-ambulatory disabled after they pass ante-mortem inspection."[184] Similarly, FSIS noted that its case-by-case approach to NAD calves created "potential uncertainty in determining the disposition of calves that have been set aside."[185] And FSIS explained that requiring the euthanasia of NAD calves "would improve the Agency's inspection efficiency" since case-by-case inspections of NAD livestock are time-consuming.[186] Because FSIS has already determined that a case-by-case approach to NAD cattle and calves hurts food safety and inspection efficiency: first, to refuse to promulgate a similar regulation for pigs would violate FSIS's statutory mandates regarding both food safety and humane slaughter; and second, it would be arbitrarily and capricious to attempt to assert that a case-by-case approach is effective for NAD pigs, but not for cattle.[187]

3. The myth of the "fatigued" pig.

The pork industry argues that most NAD pigs are merely "fatigued," and that they will recover if given a period to rest,[188] and the industry defines "fatigued" pigs as all NAD pigs that lack "*obvious* injury, trauma, or disease."[189] First, there is no scientific basis offered by the industry to assert that these pigs are "fatigued," rather than suffering from non-obvious injuries,

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[178] *See* Attachment 43.
[179] Attachment 49 at 3.
[180] 72 Fed. Reg. 38702.
[181] *Id*.
[182] *Id*. at 38703.
[183] *Id*.
[184] 74 Fed. Reg. 11464.
[185] 76 Fed. Reg. 6574.
[186] Attachment 1 at 1.
[187] *See Airmark Corp.*, 758 F.2d at 691 ("Deference to agency authority or expertise . . . 'is not a license to . . . treat like cases differently.'").
[188] *See*, *e.g.*, Attachment 43.
[189] Attachment 43 (Comments of the National Pork Producers Council) ("Fatigued hogs are ones that without *obvious* injury, trauma or disease fall behind contemporaries or refuse to take multiple steps at any stage of the marketing process from loading at the farm to stunning at the plant") (emphasis added).

traumas, or diseases. Second, the issues that point toward the statutory necessity of immediate euthanasia for NAD pigs apply regardless of whether the pigs might eventually rise.

As discussed above: First, any additional time spent in lairage increases food safety concerns; just two hours in lairage causes 80 percent of animals to become infected—in controlled conditions, where all animals are healthy and ambulatory. As long as pigs can be held for indefinite amounts of time, industry has an incentive to do so, increasing food safety concerns where pigs might rise after 1, 2, 4, 8, or even 24 hours[190]; so FSIS' food safety mandate requires that no distinction be made between pigs who may or may not eventually rise.

Second, multiple studies have shown that cruel treatment is the cause of the vast majority of NAD pigs, including those the industry calls "fatigued." The meat industries own studies confirm precisely this point, as discussed more thoroughly above: As just one example, the American Meat Institute shows an increase in "fatigue" of 1700 percent when comparing gentle with aggressive handling.[191] So FSIS' humane handling mandate requires that the agency ban the slaughter of even pigs who might eventually rise. Additionally, pigs who are too sick or ill or "fatigued" to walk off of transport trucks are an inherent humane handling issue; as Dr. Grandin has noted, "[m]aintaining an adequate level of animal welfare at the plant level is impossible if the pigs are too weak to walk through the yards."[192]

Finally, the 500,000 pigs who arrive at slaughter every year unable to walk off the backs of the transport truck require much more oversight time from FSIS inspectors than did the far fewer cattle and calves who arrived non-ambulatory; whether the pigs will or will not eventually rise, inspectors have to spend far more time "determining whether or not an animal can be tagged as 'U.S. Suspect,' proceed to slaughter, and then re-inspected after slaughter"[193] than they did for adult cattle and calves. A ban on the slaughter of NAD pigs will free up much more inspector time than did the NAD cattle ban, "thereby increasing the time inspection program personnel can focus on other inspection activities."[194]

E. The Economic Impact on Industry is No More Relevant for NAD Pigs than It Was for NAD Cattle.

In response to industry concerns about the impact of the NAD cattle ban on industry profits and on the condemnation of cattle who were not adulterated, USDA's response was that it did not matter.[195] Similarly here, a ban on the slaughter of NAD pigs would have identical positive statutory and regulatory impacts as the NAD cattle and impending NAD calf slaughter bans, and so the economic impact should not be a consideration.

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[190] 9 C.F.R. § 313.1(c).
[191] Attachment 7 at Slide 15.
[191] Attachment 43.
[191] *Id*. ("[T]he overall percentage of hogs that become non-ambulatory [is] less
[192] Attachment 8, Temple Grandin, *Fixing the Downer Pig Problem*, Meat and Poultry at 82 (May 2006).
than half of the percentage of cattle that
[193] 2009 Final Rule, 74 Fed. Reg. at 11463.
[194] *Id.*

That said, it is worth noting that the economic impact of requiring the humane euthanasia of NAD pigs would be less than the impact of the NAD cattle ban. Fewer than one in 200 (0.44%) pigs becomes non-ambulatory, according to the National Pork Producers Council (NPPC).[196] Twice that percentage of cattle become non-ambulatory,[197] yet FSIS found that the cost of a complete ban on the slaughter of NAD cattle was "insignificant compared to the value of their annual production of about $8.4 billion."[198] Pig slaughter establishments would face even smaller costs because proportionately half as many pigs as cattle become non-ambulatory. "Comparing the cost to the annual revenue of the meat slaughtering industry alone, which is about $67.2 billion, the costs of this rule to the industry would not be significant."[199]

Notablythe industry's estimates of lost saleable pork are not credible. In the course of just two years, from 2009 to 2011, NPPC increased its estimate of the amount of pork derived from NAD pigs from 41 million pounds to 66 million pounds,[200] even as it reduced its estimate of the number of NAD pigs from 0.8-1% of pigs to just 0.44% – a logical impossibility.[201] The 66 million pounds figure is particularly suspect. NPPC never explained the methodology behind this figure, but a simple calculation reveals that it relies on strained assumptions. Using NPPC's data, there are roughly 500,000 NAD pigs.[202] Even if each NAD pig weighs 250 pounds, and can thus yield 144 pounds of retail cuts,[203] 66 million pounds of "wholesome pork" would only be lost if fully 92% of NAD pigs are currently processed into "wholesome pork."[204] Yet NPPC provides no data to support this assumption – on the contrary, it concedes that at least 12% of NAD pigs have an "obvious injury, trauma or disease."[205]

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[196] Attachment 43.

[197] *Id*. ("[T]he overall percentage of hogs that become non-ambulatory [is] less [197] Attachment 8, Temple Grandin, *Fixing the Downer Pig Problem*, Meat and Poultry at 82 (May 2006).
than half of the percentage of cattle that[197] 2009 Final Rule, 74 Fed. Reg. at 11463.
[197] *Id.*
do.")

[198] 74 Fed. Reg. 11465.

[199] 77 Fed. Reg. 15978 (justifying cost of change in meat inspection regime by comparison to $67.2 billion annual revenue of the meat slaughtering industry).

[200] *Compare* Attachment 50, Comments of Dr. Jennifer Greiner, National Pork Producers Council, on CNN (Dec. 8, 2009), *available at* http://transcripts.cnn.com/transcripts/0912/08/cnr.07.html ("We estimate that if all non-ambulatory pigs were—were banned, all fatigued pigs were banned from the food supply, we would approximately lose 41 million pounds of safe pork going into the food supply") *with* Attachment 43, Comments of the National Pork Producers Council, signed by Doug Wolf (Apr. 8, 2011) ("Banning the slaughter of non-ambulatory hogs, however, would not only eliminate approximately 66 million pounds of safe and wholesome pork . . .").

[201] *Compare* Attachment 51, Written Testimony of the National Pork Producers Council, U.S. House Committee on Agriculture Subcommittee on Livestock, Dairy, and Poultry (Apr. 23, 2009), *available at* http://democrats.agriculture.house.gov/testimony/111/h042209/Appell.doc ("data from FSIS show that 0.8 to 1 percent of the roughly 110 million hogs marketed in the U.S. each year become non-ambulatory from fatigue or injury during transport or shortly after unloading") *with* Attachment 43, Comments of the National Pork Producers Council, signed by Doug Wolf (Apr. 8, 2011) (citing statistic that 0.44% of pigs are non-ambulatory).

[202] Attachment 43.

[203] These are both generous assumptions, based on the average weight of a healthy pig at slaughter and in retail cuts, even though NAD pigs often weigh less than healthy pigs, and more retail cut weight is lost in trimming diseased portions of the carcass. *See* Attachment 52, Oklahoma Dept. of Agriculture, Food, and Forestry, Average Hog Weight Data, *available at* http://www.oda.state.ok.us/food/fs-hogweight.pdf.

[204] 66 million pounds divided by 144 pounds of marketable pork per pig equals 458,333 pigs. That is 92% of the total number of NAD pigs (500,000, according to NPPC). *See* Attachment 43.

[205] NPPC defines "fatigued" pigs as all NAD pigs "without obvious injury, trauma, or disease." It estimates that 0.37% of pigs are "fatigued" and 0.05% are "injured," implying that "injured" pigs do have obvious injuries, traumas, or diseases (since there is no third category of NAD pigs). 0.05% is 12% of the combined 0.42% of pigs that are non-ambulatory. Attachment 43.

And even the 66 million pounds figure pales in comparison to the potential losses if the slaughter of NAD pigs causes the American public and American trade partners to lose trust in the safety of American pork. Following the 2008 Hallmark/Westland NAD cattle investigation, USDA recalled 143 million pounds of meat.[206] Following the BSE cow scare, exacerbated by the slaughter of NAD cattle, FSIS published rules on specified risk materials that NPPC and other industry groups claimed would waste 400 million pounds of meat.[207] The European Union has already barred the import of American pork from NAD pigs, requiring their immediate euthanasia instead.[208] The potential financial losses if the sale of pork from NAD pigs creates a disease scare are dire. Indeed, preventing such losses was a core motivation for Congress in passing FMIA.[209]

Perhaps most critically, though, the industry could eliminate almost all of these losses by treating animals better. In a meta-analysis of data covering 12,333 trailer loads, amounting to 2,053,945 pigs, researchers found huge variation in rates of NAD pigs leaving different trailers: ranging from 0% to 10.19% of pigs non-ambulatory.[210] The researchers identified nine factors that meat packers and producers could alter that would have a statistically significant effect on reducing NAD pig numbers.[211] For example, reducing stocking density on transport trucks has the largest effect of any variable on the number of NAD pigs at slaughter.[212] Other studies have found that establishments can reduce NAD losses by holding pigs for less time in trailers at slaughter establishments and reducing transport times.[213]

Dr. Temple Grandin notes, "Fatigued pigs are a problem that can be easily corrected."[214] She finds that by implementing humane handling reforms, plants can reduce NAD pigs from 10 to 20 per hour of production to one per hour.[215] In particular, plants can reduce NAD pigs by stopping rough handling, not overcrowding transport trucks, and "[c]ontrolling the indiscriminant use of Paylean."[216] Of course, this accentuates the fact that there is no difference between "fatigued" pigs and other NAD pigs, and it accentuates the fact that the pigs the industry calls "fatigued" have been abused, in violation of federal law.

Yet the pork industry has failed to implement these simple reforms. To the contrary, the proportion of pigs that are non-ambulatory at slaughter establishments today is three times higher

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[206] Attachment 53, David Brown, *USDA Orders Largest Meat Recall in U.S. History*, Washington Post (Feb. 18, 2008), *available at* http://www.washingtonpost.com/wp-dyn/content/article/2008/02/17/ AR2008021701530.html.
[207] *See* Attachment 54, Meat Industry Letter on Bovine Spongiform Encephalopathy (Jan. 20, 2008), *available at* http://www.nppc.org/2008/01/letter-on-bovine-spongiform-encephalopathy-2/.
[208] *See* Attachment 55, European Council Regulation (EC) No. 1099/2009, Art. 15, Annex III.1.11 (Sept. 24, 2009) ("Animals which are unable to walk shall not be dragged to the place of slaughter, but shall be killed where they lie.") Meat imported from any "third country" must be certified to comply with "equivalent" standards. *Id.* Chap. II, Art. 12.
[209] *See* 21 U.S.C. 602 (expressing Congress' finding that "[u]nwholesome, adulterated, or misbranded meat or meat food products impair the effective regulation of meat and meat food products in interstate or foreign commerce, are injurious to the public welfare, destroy markets for wholesome, not adulterated, and properly labeled and packaged meat and meat food products, and result in sundry losses to livestock producers and processors of meat and meat food products, as well as injury to consumers.").
[210] *See* Attachment 46.
[211] *Id.*
[212] *Id.*
[213] *See*, *e.g.*, Attachment 47.
[214] Attachment 56, Dr. Temple Grandin, *Reducing Fatigue and Non-Ambulatory Pigs in Slaughter Plants to Improve Welfare*, Meat and Poultry (Aug. 2009), *available at* http://www.grandin.com/meat/ reduce.fatigued.pigs.html.
[215] *Id.*
[216] *Id.* Paylean is Elanco's brand name of the generic drug ractopamine.

than it was in 1933-34, when 0.16% of pigs were non-ambulatory after transport.[217] The industry has not implemented these simple reforms because it has little economic incentive to do so. But if FSIS amends its regulations to stop the industry from profiting from the slaughter of NAD pigs, FSIS will create an incentive for the industry to improve handling of all pigs. The industry is capable of reform when guided by the right incentives: for example, in establishments that fined producers just $20 for each "fatigued" pig, the problem of "fatigued" pigs was "greatly reduced."[218] A prohibition would provide an even greater financial incentive for the industry to greatly reduce the number of pigs becoming non-ambulatory.

F. USDA's Denial of Farm Sanctuary's Downer Livestock Petition

In March 2013, USDA denied Farm Sanctuary's petition that asked the agency to require humane euthanasia for all NAD livestock. We have revised our petition in response to the Agency's findings.

- First, re: adulteration, we hope that in the light of the agency's own December 2013 salmonella guidance and the information we have provided, USDA will agree that holding animals non-ambulatory in lairage for any period of time is patently out of compliance with food safety requirements, as discussed in the agency's own guidance.
- Second, re: efficiency of agency operations, we hope the agency will agree that oversight of vastly more pigs than NAD calves or cattle points toward even greater agency efficiency gains from a ban on NAD pigs than were (or will be) attained by the NAD cattle and calf bans.
- Third, re: humane slaughter, the agency suggested based on its review of Farm Sanctuary's first petition that NAD livestock do not result exclusively from inhumane treatment. As discussed in detail above, industry can eliminate 96-100 percent of NAD pigs by eliminating inhumane treatment and cutting back on ractopamine use, as documented in many studies.[219] Thus, it is clear that NAD pigs are caused by inhumane treatment. Additionally, USDA's own analysis documented that NRs for inhumane treatment of downed pigs showed "a disproportionate number of NR's for inhumane treatment" of NAD pigs over NAD calves,[220] so USDA's reasoning on behalf of calves will clearly apply even more robustly on behalf of pigs.

VII. Conclusion

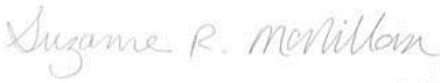
Petitioners request that FSIS initiate rulemaking to require the condemnation and prompt euthanasia of NAD pigs. FMIA and its HMSA provision point inexorably to FSIS's statutory obligations to ensure both that contaminated meat not enter the human food supply and also that animals be humanely handled in connection with slaughter. Acting on this dual mandate, FSIS prohibited the slaughter of NAD cattle "to ensure that animals that may be unfit for human food do not proceed to slaughter and to improve the effectiveness and efficiency of the inspection system.''[221] It has promised to do the same for NAD calves, using the same analysis.[222] As

[217] Nor were 1933-34 unique years: as late as 1951 (the last year data was collected), just 0.18% of pigs arrived non-ambulatory at the Omaha Livestock Market by truck and rail. Attachment 5.
[218] Attachment 48.
[219] USDA acknowledges in its letter a differential of 1700 percent between gentle and aggressive handling, and the agency chooses to err on the side of the tiny fraction of pigs (just 6 percent, with 94 percent going down because of inhumane treatment) who went down for reasons other than inhumane treatment. This reasoning is a violation of USDA's humane handling mandate and cannot be reconciled with its mandate to treat like circumstances alike.
[220] Email from Keith Gilmore to Daniel Engeljohn, Mary Porretta, et al. (December 04, 2012 10:07 PM).
[221] 74 Fed. Reg. 11463.

detailed above, the slaughter of NAD pigs poses greater food safety and humane slaughter threats than those addressed by these previous FSIS actions; thus, a prohibition on their slaughter would reduce food safety risks, reduce violation of federal humane slaughter requirements, and free up FSIS inspectors' time to focus on the rest of their food safety and humane slaughter mandate. FSIS should therefore prohibit the slaughter of NAD pigs, and require their prompt euthanasia, to better fulfill its food safety and humane handling mandates.

Respectfully submitted,

_____
Bruce Friedrich
Farm Sanctuary



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Leah Garces
Compassion in World Farming

[222] See attachment 1.

Erica Meier
Compassion Over Killing

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Farm Forward

Vandhana Bala
Mercy for Animals

Appendix A: Image of Non-Ambulatory Disabled Pigs Awaiting Slaughter

Source: Farm Sanctuary