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Advancing cancer prevention and survival through nutrition education and research.

**PETITION TO THE UNITED STATES DEPARTMENT OF AGRICULTURE  
FOR ENFORCEMENT AND RULEMAKING**

Submitted to:  
Secretary of Agriculture, Ed Schafer  
United States Department of Agriculture  
1400 Independence Ave., SW  
Washington, DC 20250

On: October 9, 2008

Submitted by:  
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**I. INTRODUCTION**

The U.S. Department of Agriculture's ("USDA") Food and Nutrition Service ("FNS") is charged with providing nutritious foods to the nation's children and needy adults while at the same time strengthening American agriculture. In this capacity, the USDA purchases commodities to remove surpluses from the marketplace and delivers them through food distribution programs to state agencies. The state agencies then provide the commodities to schools and other outlets.

Petitioner, The Cancer Project ("TCP"), is alarmed by the USDA's failure to adequately protect the nation's children by unnecessarily exposing children to significantly increased risk of cancer. Specifically, the USDA permits commodity meats and poultry to be processed in such a way as to increase their carcinogenic potential and then distributed to children through the National School Lunch program, despite the substantial body of scientific evidence attributing the consumption of processed meat to significantly increasing the risk of various forms of cancer. In doing so, the USDA fails to implement one of the primary goals of the National School Lunch Act, 42 U.S.C. § 1751, which is to safeguard and improve children's health. Accordingly, TCP submits this petition, pursuant to the Right to Petition Government Clause contained in the First Amendment

of the United States Constitution,<sup>1</sup> the Administrative Procedure Act,<sup>2</sup> and the USDA's implementing regulations,<sup>3</sup> requesting that the Secretary of the USDA take the following actions necessary to comply with the express intent of the National School Lunch Act and end federal support and encouragement of unhealthy foods in school lunches for children.

## II. ACTION REQUESTED

The Cancer Project petitions the Secretary of the United States Department of Agriculture to:

- (1) Institute an examination or investigation into the significant dangers of processed meats<sup>4</sup> in light of the increasing and plentiful body of accepted scientific evidence concluding that the ingestion of processed meat products causes an increased risk of cancer, especially colorectal cancer.
- (2) Determine whether the USDA may continue to make available unhealthful processed meats for purchase, subsidy, and reimbursement, and comply with the National School Lunch Act, 42 U.S.C. § 1751, which mandates:

[A]s a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school lunch programs.
- (3) Discontinue the inclusion of processed meats and poultry on the list of commodities available for purchase from the USDA under the Child Nutrition Commodity Programs including the National School Lunch Program, in light of the findings sought in (1) and (2).
- (4) Discontinue reimbursement, under the Child Nutrition Commodity Programs including the National School Lunch Program, to schools for lunches that include processed meats.

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<sup>1</sup> U.S. Const. amend I.

<sup>2</sup> 5 U.S.C. § 553(e).

<sup>3</sup> 7 C.F.R. § 1.28

<sup>4</sup> "Processed meat" refers to meat preserved by smoking, curing or salting, or addition of chemical preservatives such as nitrites and nitrates, including that contained in processed foods. See World Cancer Research Fund ("WCRF") and American Institute for Cancer Research ("AICR") (2007). *Second Report on Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective* ("WCRF Second Report") at xix.

- (5) Encourage schools that offer processed meats to offer alternatives to processed meats in their meal plans and at school-hosted functions.
- (6) Promulgate regulations determining processed meat and poultry products to be unhealthful and a leading cause of colorectal cancer and thus unavailable for funding, purchasing, or reimbursement through the Child Nutrition Commodity Programs including the National School Lunch Program.
- (7) Enforce 7 C.F.R. § 210.10 by requiring the FNS nutrition education program to provide information and educational material on the deleterious effects of processed meats on human health to state agencies, schools, parents, and students.
- (8) Discontinue the announcement for and the receipt of bids from suppliers selling to the USDA, for redistribution through the Child Nutrition Commodity Programs including the National School Lunch Program, processed meat products, including ham, luncheon meat, pork sausage crumbles, pork sausage links, pork sausage patties, pork sloppy joes, and any other processed meat or poultry found to increase the risk of cancer.

### **III. PARTIES**

Petitioner, The Cancer Project, is a national health advocacy nonprofit located at 5100 Wisconsin Ave., NW, Washington, D.C., 20016. TCP is a collaboration of physicians, researchers, and nutritionists joining together to educate the public about the benefits of a healthy diet for cancer prevention and survival. TCP offers free nutrition classes throughout the country, conducts research, and advocates for healthier federal food policies.

### **IV. ARGUMENT**

THE USDA FAILS TO COMPLY WITH THE NATIONAL SCHOOL LUNCH ACT BY PERMITTING COMMODITY MEAT TO BE PROCESSED AND THEN DISTRIBUTED, SUBSIDIZED, AND REIMBURSED THROUGH THE NATIONAL SCHOOL LUNCH PROGRAM

Congress has repeatedly given the USDA the authority to protect both the health and welfare of the nation's children and to protect and cultivate the nation's agricultural sector. In passing the National School Lunch Act, 42 U.S.C.A. § 1751, *et seq.*, Congress expressly mandated the dual goals of supporting "the health and well-being of the Nation's children" and "encourag[ing] the domestic consumption of nutritious

agricultural commodities.” However, the USDA compromises the health of the nation’s children by ignoring convincing and accepted scientific evidence on the deleterious effects of consumption of processed meat and poultry. Contravening its mandate, the USDA facilitates, permits, and funds the purchase of processed meat and poultry for children in school, thus increasing their risk of cancer.

Processed meat products, including ham, bacon, pastrami, salami, bologna, liverwurst, bratwurst, sausages, frankfurters, hot dogs, luncheon meats, and, depending on the processing, hamburgers and minced meats,<sup>5</sup> represent a broad category of meat products that are often prepared and/or preserved by curing, smoking, salting, or adding chemical preservatives, such as nitrites and nitrates. A review of 58 scientific studies concluded that consuming processed meat is strongly associated with the increased risk of colorectal cancer,<sup>6</sup> the fourth most common cancer in men and women.<sup>7</sup>

Cancer risk is strongly influenced by environmental exposures; the intestinal tract is in constant contact with foods, food additives, and the products of digestion. This means that individuals who consume processed meats are at a significantly increased risk of developing colorectal cancer, compared with those who avoid consuming processed meats. Moreover, the risk increases with increased consumption. According to the World Cancer Research Fund and American Institute for Cancer Research, risk increases on average by 21 percent for every 50 grams of processed meat consumed daily. A 50-gram serving is approximately the size of a typical hot dog. The review also cites evidence that consuming processed meats may also contribute to cancers of the esophagus, lung, stomach, and prostate.<sup>8</sup>

Thus, in order to protect the health and well-being of the nation’s children, the USDA must eliminate the availability of processed meats through the Child Nutrition Commodity Programs including the National School Lunch Program. By acting on the requests made by TCP, the USDA will be in compliance with the National School Lunch Act, 42 U.S.C.A. § 1751, *et seq.* And in doing so, the USDA will meet its responsibilities to the nation’s children. Moreover, this can be achieved while allowing processed meats to be sold at prices set by the marketplace, not by the federal government.

In determining the nutritious quality of a school lunch, the USDA considers many factors. For example, school lunches must meet the applicable recommendations of the Dietary Guidelines for Americans, which recommend that no more than 30 percent of an individual’s calories come from fat and less than 10 percent from saturated fat.

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<sup>5</sup> See WCRF and AICR (2007). *WCRF Second Report* at 117; and Ward, M.H. et al. (2007). *Processed meat intake, CYP2A6 activity and risk of colorectal adenoma*. *CARCINOGENESIS* 28(6): 1210-1216, 1210.

<sup>6</sup> In 2007, the World Cancer Research Fund and American Institute for Cancer Research released a report, *Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective* that concluded that “Processed meat is a convincing cause of colorectal cancer.” *WCRF Second Report* at 123.

<sup>7</sup> The National Cancer Institute estimates predict that, in 2008, 108,070 individuals will develop colon cancer, 40,740 will develop rectal cancer, and 49,960 will die from these conditions. (NCI 2008).

<sup>8</sup> *WCRF Second Report* at 128;

Regulations also establish a standard for school lunches to provide one-third of the Recommended Dietary Allowances of protein, vitamin A, vitamin C, iron, calcium, and calories. However, the USDA fails to look at other attributes of food in determining whether it is healthful for inclusion in the school lunch menu. As noted above, the overall healthfulness of food goes beyond the caloric content, fat, and cholesterol. Both the food itself and the cooking process must be examined for overall wholesome qualities, including the risk of cancer and exposure to any other risk of disease or ailment through the National School Lunch Program and Commodity Programs.

## V. SCIENTIFIC EVIDENCE SUPPORTING TCP'S PETITION

The link between eating processed meats and cancer has been long studied.<sup>9</sup> In order to establish consensus on the state of evidence supporting links between specific types of food and cancer risk, the World Cancer Research Fund<sup>10</sup> and the American Institute for Cancer Research<sup>11</sup> created a panel that, over a five-year period, studied evidence regarding the extent to which cancer can be prevented through healthy patterns of eating and physical activity and created a comprehensive report based on its findings. Previously, the groups had worked together to create and publish *Food, Nutrition and the Prevention of Cancer: a Global Perspective* (1997), which quickly became the standard in the field and helped raise awareness about the importance of research on this issue.<sup>12</sup>

The panel's report reviewed all relevant research using the most scientifically valid methodology, provided a comprehensive assessment of the state of evidence linking foods to cancer risk, and provided a set of recommendations on food, nutrition, and physical activity to reduce the risk of cancer.<sup>13</sup> The panel consisted of world-renowned scientists, including world leaders in research of the epidemiology and biology of cancer, nutrition, and public health. To maximize objectivity and transparency of the project, it was separated into three distinct processes: 1) the collection, 2) the analysis, and 3) the recommendations. First, a task force developed a methodology for reviewing the voluminous amounts of scientific literature. Second, research teams collected and reviewed the material based on the developed methodology. And finally, the expert panel assessed and judged the evidence and agreed on recommendations. A copy of the report is attached and incorporated herein by reference.

Although the cancer process begins with damage to genes, only a small percentage of cancer is inherited, leaving environmental factors, including food and nutrition, as the

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<sup>9</sup> See *WCRF Second Report* at 116.

<sup>10</sup> The WCRF global network raises awareness that cancer is largely preventable, funds innovative scientific research and stimulates world wide public health initiatives for the control and prevention of cancer. [http://www.wcrf.org/home/about\\_wcrf\\_intl.lasso](http://www.wcrf.org/home/about_wcrf_intl.lasso) (last accessed on May 28, 2008).

<sup>11</sup> American Institute for Cancer Research fosters research on diet and cancer prevention, interprets the evidence, and educates the public about the results.

<sup>12</sup> *WCRF Second Report* at xiv.

<sup>13</sup> *Id.*

most important and modifiable.<sup>14</sup> It has long been estimated that anywhere from 35 to 60 percent of cancer is attributable to diet.<sup>15</sup> “To the extent that environmental factors such as food, nutrition, and physical activity influence the risk of cancer, it is a preventable disease.”<sup>16</sup> Accordingly, the report includes among its recommendations that processed meats be eliminated from people’s diets.<sup>17</sup>

### **a. Processed Meats and the Risk of Cancer**

Processed meats and poultry products contain a variety of potentially carcinogenic chemicals, especially when smoked, cured, preserved, grilled, or cooked at high temperatures. These may include nitrates, nitrites, N-nitroso compounds (“NOCs”) such as N-nitrosodimethylamine (“NDMA”), heme iron, heterocyclic amines (“HCAs”), such as 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (“PhIP”) and 2-amino-3,8-dimethylimidazo[4,5]quinoxaline (“MeIQx”), and polycyclic aromatic hydrocarbons (“PAHs”), such as benzo[ $\alpha$ ]pyrene (“BAP”).<sup>18</sup> The associated cancer risks from these chemical components through the consumption of processed meat products have been described for decades. N-nitrosamines and NOCs were identified as carcinogenic substances over 50 years ago.<sup>19</sup>

Nitrites used in meats as a preservative, as well as a coloring and flavoring agent, can combine with amino acid degradation products during the curing process or during digestion to produce N-nitroso compounds (nitrosamines or nitrosamides). Nitrates, used as preservatives, are converted to nitrites. In addition, processed meats cooked at high temperatures may contain chemical carcinogens, including HCAs and PAHs. Moreover, heme iron, plentiful in red and processed meats, promotes the production of N-nitroso compounds, and its iron content leads to free radical production.

Substantial evidence from cohort and case-control studies indicates that processed meat is a convincing cause of colorectal cancer. Meta-analyses find a 21 percent increased risk per 50-gram serving per day.<sup>20</sup>

### **b. Chemicals that Increase the Risk of Cancer**

#### **i. NOCs**

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<sup>14</sup> *Id.*

<sup>15</sup> National Cancer Institute. *Cancer Rates and Risks*. Washington, DC:1985, Doll R, Peto R. *The Causes of Cancer: Quantitative Estimates of Avoidable Risks of Cancer in the United States today*. J Natl Cancer Inst. 1981; 66:1191-308.

<sup>16</sup> *WCRF Second Report* at xiv.

<sup>17</sup> *Id.* at 382.

<sup>18</sup> Jakszyn, P. et al. (2004). *Development of a Food Database of Nitrosamines, Heterocyclic Amines, and Polycyclic Aromatic Hydrocarbons*. J. NUTR. 134: 2011-2014, 2011.

<sup>19</sup> See Bartsch, H. and Montesano, R. (1984). *Relevance of nitrosamines to human cancer*. CARCINOGENESIS 5(11): 1381-1393, 1381.

<sup>20</sup> *WCRF Second Report* at 123.

A body of scientific literature concludes that NOCs exhibit mutagenic and carcinogenic activity and are associated with an increased risk of cancer of the esophagus, oral cavity, pharynx, larynx, lung, and colorectum.<sup>21</sup> NOCs are formed as a result of the nitrosation of amines, amides, and amino acids by nitrites and nitrates, which are commonly used as food preservatives in processed meat products.<sup>22</sup> Consumption of processed meat, especially processed red meat, has a consistent dose response with the endogenous formation of NOCs resulting in increased amounts of these compounds in the gastrointestinal tract.<sup>23</sup> Thus, due to the endogenous and exogenous exposure from NOCs through the consumption of processed meat products, consumers of these products have an increased risk for gastrointestinal cancers, such as colorectal cancer.<sup>24</sup> Additionally, NOC metabolites (metabolically activated NOCs) may contribute to an increased risk of leukemia as well as colon, stomach, esophagus, and brain cancer by inducing the formation of DNA-adducts and miscoding of non-complementary bases during polyribonucleotide and polydeoxyribonucleotide synthesis.<sup>25</sup> It is important to note that no safe threshold dose, at which tumor formation would not be expected to occur, has been determined for NOCs. Moreover, NOCs that are carcinogenic in animals are commonly considered human carcinogens for regulatory purposes when establishing safety levels.<sup>26</sup>

One of the most studied NOCs, NDMA, a nitrosamine present in processed meat products, was listed as a human carcinogen by the State of California in 1987.<sup>27</sup> Similarly, the International Agency for Research on Cancer (“IARC”), which is part of the World Health Organization, identified NDMA as a probable and possible human

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<sup>21</sup> See Cross A.J. et al. (2007).

<sup>22</sup> Larsson, S.C., Orsini, N. and Wolk, A. (2006). *Processed Meat Consumption and Stomach Cancer Risk: A Meta-Analysis*. J. NATL. CANC. INST. 98(15): 1078-1087, 1085.

<sup>23</sup> See Lunn, J., Pollock, J. and Bingham, S. (2004). *The effect of increased red and processed meat on endogenous formation of N-nitroso compounds and DNA strand breaks in ileostomists*. CANCER EPIDEMIOLOG. BIOMARKERS PREV. 13: A 95-1852.

<sup>24</sup> Mirvish, S.S. et al. (2002) at 35268 and See Jakszyn, P. et al. (2006). *Endogenous versus exogenous exposure to N-nitroso compounds and gastric cancer risk in the European Prospective Investigation into Cancer and Nutrition (EPIC-EURGAST) study*. CARCINOGENESIS 27(7): 1497-1501, 1499; Risch, H.A. (2003). *Etiology of Pancreatic Cancer, With a Hypothesis Concerning the Role of N-Nitroso Compounds and Excess Gastric Acidity*. J. NATL. CANCER INST. 95(13): 948-960, 950.

<sup>25</sup> Mirvish, S.S. et al. (2002) at 35268; Bartsch, H. and Montesano, R. (1984). *Relevance of nitrosamines to human cancer*. CARCINOGENESIS 5(11): 1381-1393, 1384-1385; also see Bingham, S.A. (2000). *Diet and colorectal cancer prevention*. BIOCHEM. SOCIETY TRANSACTIONS 28(2): 12-16.

<sup>26</sup> European Commission, Scientific Committee for Food (1995). *Report of the Scientific Committee for Food*, 38<sup>th</sup> Series: 1-54, 20 and See Bingham, S.A. et al. (2002). *Effect of white versus red meat on endogenous N-nitrosation in the human colon and further evidence of a dose response*. J. NUTR., 132, 3522S–3525S; Cross, A.J. et al. (2003). *Haem, not protein or inorganic iron, is responsible for endogenous intestinal N-nitrosation arising from red meat*. CANCER RES., 63, 2358–2360.

<sup>27</sup> See Environmental Protection Agency Office of Environmental Health Hazard Assessment (“OEHHA”) (2008). *Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*. [http://www.oehha.ca.gov/prop65/prop65\\_list/files/singlelist032108.xls](http://www.oehha.ca.gov/prop65/prop65_list/files/singlelist032108.xls) (last accessed March 21, 2008).

carcinogen.<sup>28</sup> The U.S. Department of Health and Human Services (“DHHS”) identified NDMA as a substance reasonably anticipated to cause cancer.<sup>29</sup>

## ii. HEME

Heme, a red organic pigment, is the iron porphyrin component of hemoproteins, such as hemoglobin and myoglobin.<sup>30</sup> Dietary heme forms a highly cytotoxic metabolite that damages the colonic mucosa, resulting in the increased risk of gastric and colon cancer.<sup>31</sup> Due to the contribution of heme to NOC formation, the consumption of nitrate and nitrite-rich processed meat products leads to an increased risk for gastrointestinal cancers, such as colorectal cancer. Heme iron, as opposed to inorganic iron, is considered to be a principal determinant of endogenous gastrointestinal N-nitrosation by acting as a nitrosating agent, and, for reasons similar to those applied to NOCs, cannot have a determined safe threshold level.<sup>32</sup>

## iii. HCAs

HCAs have been considered major contributors to mutagenicity of cooked meat products. Therefore, consuming these products poses a public health risk. Through metabolic pathways such as cytochrome-mediated (e.g., CYP1 and CYP2) N-hydroxylation and O-esterification by phase II enzymes, HCA compounds create genotoxic metabolites that are known mutagens and carcinogens.<sup>33</sup> HCAs form inside and on the surface of meats from creatine or creatinine, amino acids, and sugars as a result of exposure to high temperatures through cooking processes, including barbecuing, frying, roasting, and grilling.<sup>34</sup>

HCAs detected in cooked processed meat products that are suspected of increasing cancer risk include 2-amino-3-methylimidazo[4,5-f]quinoline.<sup>35</sup> The HCAs 2-amino-3,4,8-trimethylimidazo[4,5]quinoxaline, MeIQx, and PhIP are specifically linked to an increased risk for colorectal cancer.<sup>36</sup> The State of California has identified PhIP and

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<sup>28</sup> See IARC (2007). *Agents Reviewed by the IARC Monographs, Vols. 1-98*, 4.

<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf> (last accessed March 21, 2008).

<sup>29</sup> See U.S. DHHS, Public Health Service, National Toxicology Program (2005). *Report on Carcinogens, Eleventh Edition*. <http://ntp.niehs.nih.gov/index.cfm?objectid=32BA9724-F1F6-975E-7FCE50709CB4C932> (last accessed March 21, 2008).

<sup>30</sup> Balder, H.F. et al. (2006). *Heme and Cholorophyll Intake and Risk of Colorectal Cancer in the Netherlands Cohort Study*. *CANCER EPIDEMIOLOGICAL BIOMARKERS PREV.* 15(4): 717-725, 717.

<sup>31</sup> See Balder, H.F. et al. (2006) at 717; Lunn, J.C. et al. (2004) at 689.

<sup>32</sup> See Ward, M.H. et al. (2007) at 1215; Cross, A.J. et al. (2007); Jakszyn, P. et al. (2006) at 1497.

<sup>33</sup> See Gooderham, N.J. et al. (2001-a). *Food-Derived Heterocyclic Amine Mutagens: Variable Metabolism and Significance to Humans*. *DRUG METABOLISM AND DISPOSITION* 29(4): 529-534, 529.

<sup>34</sup> Kikugawa, K. (2004). *Prevention of mutagen formation in heated meats and model systems*. *MUTAGENESIS* 19(6): 431-439, 431.

<sup>35</sup> See IARC. *Some Naturally Occurring Substances: Food Items and Constituents, Heterocyclic Aromatic Amines and Mycotoxins*, Vol. 56 at 11.

<http://monographs.iarc.fr/ENG/Monographs/vol56/volume56.pdf> (last accessed March 20, 2008).

<sup>36</sup> See Sinha, R. et al. (2005). *Meat, Meat Cooking Methods and Preservation, and Risk for Colorectal Adenoma*. *CANCER RES.* 65(17): 8034-8042.

MeIQx as known human carcinogens since 1994,<sup>37</sup> and the IARC labeled them as possible human carcinogens in 1993.<sup>38</sup> Because there are no known safe levels of exposure, PhIP, MeIQx, and any other likely genotoxic compounds should be avoided as much as possible.<sup>39</sup>

#### iv. PAHs

Studied for decades, PAHs have also been found to contribute to mutagenic and carcinogenic activity. Processed meat products contain precursors to PAHs, creating PAHs when animal fat drips onto a heated surface and burns.<sup>40</sup> Processed meat products are thereby of concern due to the routine use of high temperature cooking methods to prepare such foods.<sup>41</sup> Through a process of metabolic activation by cytochrome P450 enzymes and/or peroxidases, PAHs become reactive intermediates with carcinogenic potential.<sup>42</sup> PAH exposure results in genotoxic markers such as DNA adducts, chromosome aberrations, sister chromatid exchanges, *ras* oncogene over expression, and impacts on cellular pathways.<sup>43</sup> PAHs generally exist in complex mixtures, making it difficult to pinpoint the relative contribution of any individual PAH to carcinogenic effects.

However, one of the most prevalent and readily identifiable carcinogenic PAHs is BAP.<sup>44</sup> Since the 1930s, BAP has been studied for its carcinogenic effect.<sup>45</sup> BAP was listed as a known carcinogen by the State of California in 1987 and was upgraded to this status by the IARC in 2007.<sup>46</sup> The DHHS has identified BAP and PAHs as substances reasonably

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<sup>37</sup> OEHHA (2008). *Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*.

[http://www.oehha.ca.gov/prop65/prop65\\_list/files/singlelist032108.xls](http://www.oehha.ca.gov/prop65/prop65_list/files/singlelist032108.xls) (last accessed March 21, 2008).

<sup>38</sup> IARC (2007). *Agents Reviewed by the IARC Monographs, Vols. 1-98, 4*.

<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf> (last accessed March 21, 2008).

<sup>39</sup> Food Standards Australia New Zealand (2005). *Scientific Assessment of the Public Health and Safety of Poultry Meat in Australia*. 1-228, 172;

[http://www.foodstandards.gov.au/\\_srcfiles/P282\\_Poultry%20\\_%20DAR%20Attach3.doc](http://www.foodstandards.gov.au/_srcfiles/P282_Poultry%20_%20DAR%20Attach3.doc) (last accessed

March 24, 2008). Gooderham, N.J. et al. (1996). *Heterocyclic amines: evaluation of their role in diet associated with human cancer*. BR. J. CLIN. PHARMACOL. 42: 91-98, 91.

<sup>40</sup> Sinha, R. et al. (2005). *Dietary Benzo[a]Pyrene Intake and Risk of Colorectal Adenoma*. CANCER EPIDEMIOLOG. BIOMARKERS PREV. 14(8): 2030-2034, 2030.

<sup>41</sup> See IARC: Polycyclic Aromatic Hydrocarbons, § 5.4, August 2006.

<http://monographs.iarc.fr/ENG/Meetings/92-pahs.pdf> (last accessed March 20, 2008).

<sup>42</sup> Melendez-Colon, V.J., Luch, A., Seidel, A. and Barid, W.M. (1999). *Cancer initiation by polycyclic aromatic hydrocarbons results from formation of stable DNA adducts rather than apurinic sites*. CARCINOGENESIS 20(10): 1885-1891, 1885.

<sup>43</sup> Ding et al. (2006). *Effects of Polycyclic Aromatic Hydrocarbons (PAHs) on Vascular Endothelial Growth Factor Induction through Phosphatidylinositol 3-Kinase/AP-1-dependent HIF-1 $\alpha$ -Independent Pathway*. J. BIOL. CHEM. 281(14): 9093-9100, 9099.

<sup>44</sup> See IARC (2007). *Overall Evaluations of Carcinogenicity to Humans*.

<http://monographs.iarc.fr/ENG/Classification/crthgr01.php> (last accessed March 20, 2008).

<sup>45</sup> Rubin, H. (2001). *Synergistic mechanisms in carcinogenesis by polycyclic aromatic hydrocarbons and by tobacco smoke: a biohistorical perspective with updates*. CARCINOGENESIS 22(12): 1903-1930, 1903.

<sup>46</sup> IARC (2007). *Agents Reviewed by the IARC Monographs, Vols. 1-98, 4*.

<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf> (last accessed March 21, 2008);

anticipated to cause cancer.<sup>47</sup> Because there is no known safe level of exposure for BAP or other genotoxic PAHs, they should be avoided as much as possible.<sup>48</sup>

## VI. CONCLUSION

In light of the evidence presented in this petition, and in order for the agency to comply with its own statutory and regulatory requirements, TCP requests that the USDA enact the suggested rulemaking and amendments to particular rules to bring the USDA's programs into compliance with the National School Lunch Act. As required by 7 C.F.R. § 1.28, the USDA is required to give this petition prompt consideration. Therefore, TCP requests a substantive response to this petition within one hundred eighty (180) calendar days.<sup>49</sup>

Respectfully submitted,



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<sup>47</sup> U.S. DHHS, Public Health Service, National Toxicology Program (2005). *Report on Carcinogens, Eleventh Edition*. <http://ntp.niehs.nih.gov/index.cfm?objectid=32BA9724-F1F6-975E-7FCE50709CB4C932> (last accessed March 21, 2008).

<sup>48</sup> *Id.* at 169.

<sup>49</sup> See 42 U.S.C. § 7604(a) requiring notice of 180 days prior to commencing an action for unreasonable delay.



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## APPENDIX A

### RELEVANT STATUTES AND REGULATIONS

1. 42 U.S.C.A. § 1751 *et seq.* Richard B. Russell National School Lunch Act:

It is declared to be the policy of Congress, as a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school lunch programs.

Authorizes the secretary to promulgate regulations necessary to carry out the Child Nutrition Act of 1966 [42 U.S.C.A. § 1771].

2. 42 U.S.C.A. § 1762a Commodity Distribution Program:

(a) Notwithstanding any other provision of law, the Secretary shall--

(1) use funds available to carry out the provisions of section 612c of Title 7 which are not expended or needed to carry out such provisions, to purchase (without regard to the provisions of existing law governing the expenditure of public funds) agricultural commodities and their products of the types customarily purchased under such section (which may include domestic seafood commodities and their products), for donation to maintain the annually programmed level of assistance for programs carried on under this chapter, the Child Nutrition Act of 1966 [42 U.S.C.A. § 1771 *et seq.*], and Title III of the Older Americans Act of 1965 [42 U.S.C.A. § 3021 *et seq.*]

\* \* \* \*

(b) Nutrition quality and content information

(1) The Secretary shall maintain and continue to improve the overall nutritional quality of entitlement commodities provided to schools to assist the schools in improving the nutritional content of meals.

(2) The Secretary shall--

(A) require that nutritional content information labels be placed on packages or shipments of entitlement commodities provided to the schools; or

(B) otherwise provide nutritional content information regarding the commodities provided to the schools.

\* \* \* \*

In providing assistance under this chapter and the Child Nutrition Act of 1966 [42 U.S.C.A. § 1771 et seq.] for school lunch and breakfast programs, the Secretary shall establish procedures which will—

\* \* \* \*

make available technical assistance on the use of commodities available under this chapter and the Child Nutrition Act of 1966 [42 U.S.C.A. § 1771 et seq.].

Within eighteen months after November 10, 1977, the Secretary shall report to Congress on the impact of procedures established under this subsection, including the nutritional, economic, and administrative benefits of such procedures. In purchasing commodities for programs carried out under this chapter and the Child Nutrition Act of 1966, the Secretary shall establish procedures to ensure that contracts for the purchase of such commodities shall not be entered into unless the previous history and current patterns of the contracting party with respect to compliance with applicable meat inspection laws and with other appropriate standards relating to the wholesomeness of food for human consumption are taken into account.

### 3. 42 U.S.C.A. § 1771 Child Nutrition Act of 1966

In recognition of the demonstrated relationship between food and good nutrition and the capacity of children to develop and learn, based on the years of cumulative successful experience under the national school lunch program with its significant contributions in the field of applied nutrition research, it is hereby declared to be the policy of Congress that these efforts shall be extended, expanded, and strengthened under the authority of the Secretary of Agriculture as a measure to safeguard the health and well-being of the Nation's children, and to encourage the domestic consumption of agricultural and other foods, by assisting States, through grants-in-aid and other means, to meet more effectively the nutritional needs of our children.

4. 42 U.S.C.A. § 1773 School Breakfast Program

There is hereby authorized to be appropriated such sums as are necessary to enable the Secretary to carry out a program to assist the States and the Department of Defense through grants-in-aid and other means to initiate, maintain, or expand nonprofit breakfast programs in all schools which make application for assistance and agree to carry out a nonprofit breakfast program in accordance with this chapter. Appropriations and expenditures for this chapter shall be considered Health and Human Services functions for budget purposes rather than functions of Agriculture.

5. 42 U.S.C.A. § 1779

The Secretary shall prescribe such regulations as the Secretary may deem necessary to carry out this chapter and the Richard B. Russell National School Lunch Act [42 U.S.C.A. § 1751 et seq.], including regulations relating to the service of food in participating schools and service institutions in competition with the programs authorized under this chapter and the Richard B. Russell National School Lunch Act.

6. 7 U.S.C.A. § 612c Commodity Distribution Reform Act and WIC Amendments of 2004

[E]ncourage the domestic consumption of such commodities or products by diverting them, by the payment of benefits or indemnities or by other means, from the normal channels of trade and commerce or by increasing their utilization through benefits, indemnities, donations or by other means, among persons in low income groups as determined by the Secretary of Agriculture.

7. 7 CFR § 210

(a) Purpose of the program. Section 2 of the National School Lunch Act (42 U.S.C.A. 1751), states: "It is declared to be the policy of Congress, as a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of food and other facilities for the establishment, maintenance, operation, and expansion of

nonprofit school lunch programs." Pursuant to this act, the Department provides States with general and special cash assistance and donations of foods acquired by the Department to be used to assist schools in serving nutritious lunches to children each school day. In furtherance of Program objectives, participating schools shall serve lunches that are nutritionally adequate, as set forth in these regulations, and shall to the extent practicable, ensure that participating children gain a full understanding of the relationship between proper eating and good health.

(b) Scope of the regulations. This part sets forth the requirements for participation in the National School Lunch and Commodity School Programs. It specifies Program responsibilities of State and local officials in the areas of program administration, preparation and service of nutritious lunches, payment of funds, use of program funds, program monitoring, and reporting and recordkeeping requirements.

AUTHORITY: 42 U.S.C. 1751-1760, 1779.

a. 7 CFR § 210.10 Nutrition standards for lunches

“Schools must provide nutritious and well-balanced meals to all the children they serve.”

8. 7 CFR § 227.1 Nutrition Education and Training Program

The purpose of these regulations is to implement section 19 of the Child Nutrition Act (added by Pub.L. 95-166, effective November 10, 1977) which authorizes the Secretary to formulate and carry out a nutrition information and education program through a system of grants to State agencies to provide for (a) the nutritional training of educational and food service personnel, (b) the food service management training of school food service personnel, and (c) the conduct of nutrition education activities in schools and child care institutions. To the maximum extent possible, the Program shall fully utilize the child nutrition programs as a learning experience.

9. 7 CFR § 250.1 Donation of Foods

This part prescribes the terms and conditions under which donated foods may be obtained from the Department by Federal, State and private agencies for use in any State in child nutrition programs, nonprofit summer camps for children, charitable institutions, nutrition programs for the elderly, the

Commodity Supplemental Food Program, the Special Supplemental Nutrition Program for Women, Infants, and Children, the Food Distribution Programs on Indian Reservations and the assistance of needy persons.

10. 7 CFR § 252 National Commodity Processing Program

This part provides a program whereby the Food and Nutrition Service (FNS) and private processors of food may enter into agreements under which the processor will process and distribute designated donated food to eligible recipient agencies. The intent of the program is to encourage private industry, acting in cooperation with the States and FNS, to develop new markets in which donated food may be utilized. It is expected that the processors will use their marketing abilities to encourage eligible recipient agencies to participate in the program. Additionally, recipient agencies will benefit by being able to purchase processed end products at a substantially reduced price.

\* \* \* \*

The terms and conditions set forth in this part are those under which processors may enter into agreements with FNS for the processing of commodities designated by the Secretary of Agriculture and the minimum requirements which NCP processors must meet. Also prescribed are distributing agency and recipient agency responsibilities.

AUTHORITY: 7 U.S.C. 1431 Agricultural Act of 1949