VIA ELECTRONIC SUBMISSION

August 11, 2011

Environmental Protection Agency
Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

RE: Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards:
Docket ID No. EPA–HQ–OAR–2010–0133

The American Cleaning Institute® (ACI, formerly The Soap and Detergent Association, SDA) represents the $30 billion U.S. cleaning products market and includes the formulators of soaps, detergents, and general cleaning products used in household, commercial, industrial and institutional settings; companies that supply ingredients and finished packaging for these products; and oleochemical producers.

We appreciate the opportunity to provide comments on the proposed 2012 Renewable Fuel Standards and the volume requirements for biomass-based diesel in 2013 and beyond. As outlined below, ACI has serious concerns regarding the 2012 Renewable Fuel Standards and 2013 biomass-based diesel volume mandate. The proposal will have a serious and significant impact on ACI member companies' ability to source animal fats for use as an oleochemical feedstock. We respectfully request that EPA use its discretionary authority to lower, rather than raise the volume requirements for biomass-based diesel and advanced biofuel, or, alternatively, to exclude animal fats as a feedstock option. The proposed volumes would divert even larger quantities of a finite inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry.

Combined government policies have driven the price of tallow above that of palm oil for the first time in history. More importantly, the proposed rule, with its higher volumes, now threatens the availability of animal fats for use in oleochemicals. Unless these government policies are reversed, the domestic oleochemical industry stands to be driven offshore to Southeast Asia to be near its new raw material source, i.e. palm oil. While it is somewhat difficult to tease out industry specific numbers from the Standard Industry Codes (SIC) or Dunn and Bradstreet, our

best estimate is that the oleochemical industry currently directly supports 20,000 breadwinner jobs in the United States.

Executive Summary

- The price of animal fats has dramatically increased under the combined policies of the RFS2 and tax incentives for biofuels
- Biofuel production consumes a significant amount of the total supply of animal fats and current policies threaten not only the price but the availability of animal fats for oleochemical production
- For the first time in history, the price of animal fats now exceeds that of Malaysian palm oil
- Switching to palm oil by the oleochemical industry threatens 20,000 U.S. jobs
- EPA must use all its available discretion to exempt or minimize the use of animal fats under the RFS2 mandates and include the Proposed Rule's impact on the oleochemical industry in its analysis of impacts on other sectors and industries. The EPA must address the potential job loss in collateral industries (Section IV. A of Proposed Rule)
- The use of animal fats to make biodiesel could consume a given year's total supply of animal fat
- Agency mandates should not choose winners and losers. EPA has a responsibility, if not duty, to equally protect all industries that rely on animal fats to produce goods

Market Conditions under 1.0 billion gallon mandate

Since the adoption of federal policies encouraging the use of animal fats as a biofuels feedstock, the price of animal fats has increased significantly. The average yearly price of animal fats (BFT Delivered Chicago) has, as the table below shows, increased from $0.19 in 2006 to $0.44 in 2011.[1]

[1] The Jacobsen; 2011 data is 6 month average (January through June 2011).

Table 1.

Average Yearly Price	BFT - Delivered Chicago	Price Change (year to year)	Percent Change (year to year)
2006	$0.19	N/A	N/A
2007	$0.28	$0.09	50.5%
2008	$0.34	$0.06	23.2%
2009	$0.25	-$0.09	-26.6%
2010	$0.33	$0.08	32.6%
2011 (Jan-June)	$0.44	$0.11	32.4%

Source: The Jacobsen

During this same period (2006-2010) domestic production of rendered products has generally trended downward from a 2006 level of 4,534.9 metric tons to 4,264.5 metric tons in 2010, a reduction of 270.4 metric tons.[2] Unlike other commodity markets, where higher prices lead to greater supply, animal fats operate in an inelastic market.

Table 2.

U.S. Production of Rendered Products (000 Metric Tons)	2006	2007	2008	2009	2010
Inedible tallow and greases (total):	2963.8	3006.5	2880.8	2821.5	2668.1
Inedible tallow	1737.8	1727.5	1610.7	1531.1	1511.2
Greases	1226.0	1279.0	1270.1	1290.3	1156.9
Yellow grease	671.4	700.0	769.1	740.3	569.2
Other grease	554.6	579.0	501.1	550.0	588.3
Edible tallow	844.3	811.4	813.7	833.4	827.6
Lard	143.8	211.2	222.6	157.0	130.4
Poultry fat	583.0	624.8	659.3	625.4	638.3
Subtotal	**4534.9**	**4653.9**	**4576.4**	**4437.3**	**4264.5**
Year to Year Difference	**N/A**	**119.00**	**-77.50**	**-139.10**	**-172.80**
Percent of Supply Change	**N/A**	**2.56**	**-1.69**	**-3.13**	**-4.05**

Source: Render Magazine, April 2009 and April 2011

The supply of animal fats is inelastic.

At the same time that the RFS2 mandates have been implemented for biomass-based diesel, the supply of animal fats has fallen 8.3% from 2007-2010. The decline stems from many factors, including an economic downturn that caused consumers to decrease their consumption of beef products. Livestock owners also decreased their herds as the cost of production increased due to higher feed prices, driven in part by corn ethanol. This has led to fewer animals being brought to

[2] Render Magazine, April 2009 and April 2011

market. Livestock production is geared to food supply, not fuel. Animal fats are a co-product of livestock slaughter, not a demand driver. Consequently, there is no reasonable prospect that production will increase significantly, farmers and ranchers do not raise or slaughter animals for their fats.

Historically, animal fats have provided domestic oleochemical producers a competitive raw material cost advantage over foreign-sourced palm. As a result of the RFS2 mandates as well as tax credits that support diversion of animal fats to biofuel production, that raw material price advantage has now been lost for the first time (see Graph 1). Oleochemicals are the original "green" chemistry. They are used in a wide range of value-added household and industrial products (see Appendix A). In view of this history, any characterization of animal fats as "waste" is false. Waste implies something that does not otherwise have a value. This is not the case with animal fats. Papers of record, such as the *Wall Street Journal* and *New York Times*, list the commodity prices of the various animal fats used for production in hundreds of products. These prices are also the collected and published by private firms such as ICIS-LOR and The Jacobsen Letter.

Supply shortages lead to raw material price increases.

As noted above, in 2011 the price of tallow has increased $0.11 to $0.44 from an already high price of $0.33 in 2010.[3]

Table 3.

Average Yearly Price	BFT - Delivered Chicago	Soyoil Crude Degummed - Illinois	**BFT - Soyoil Crude Degummed**	Technical Tallow (Cents/Lb)	Palm Stearin FOB Malaysia (Cents/Lb)	**Technical Tallow - Palm Stearin**
2006	$0.19	$0.27	**-$0.09**	$0.19	$0.20	**-$0.01**
2007	$0.28	$0.35	**-$0.08**	$0.29	$0.33	**-$0.03**
2008	$0.34	$0.50	**-$0.16**	$0.37	$0.37	**$0.00**
2009	$0.25	$0.33	**-$0.08**	$0.28	$0.28	**$0.00**
2010	$0.33	$0.39	**-$0.06**	$0.36	$0.39	**-$0.03**
2011 (Jan-June)	$0.44	$0.50	**-$0.06**	$0.53	$0.49	**$0.04**

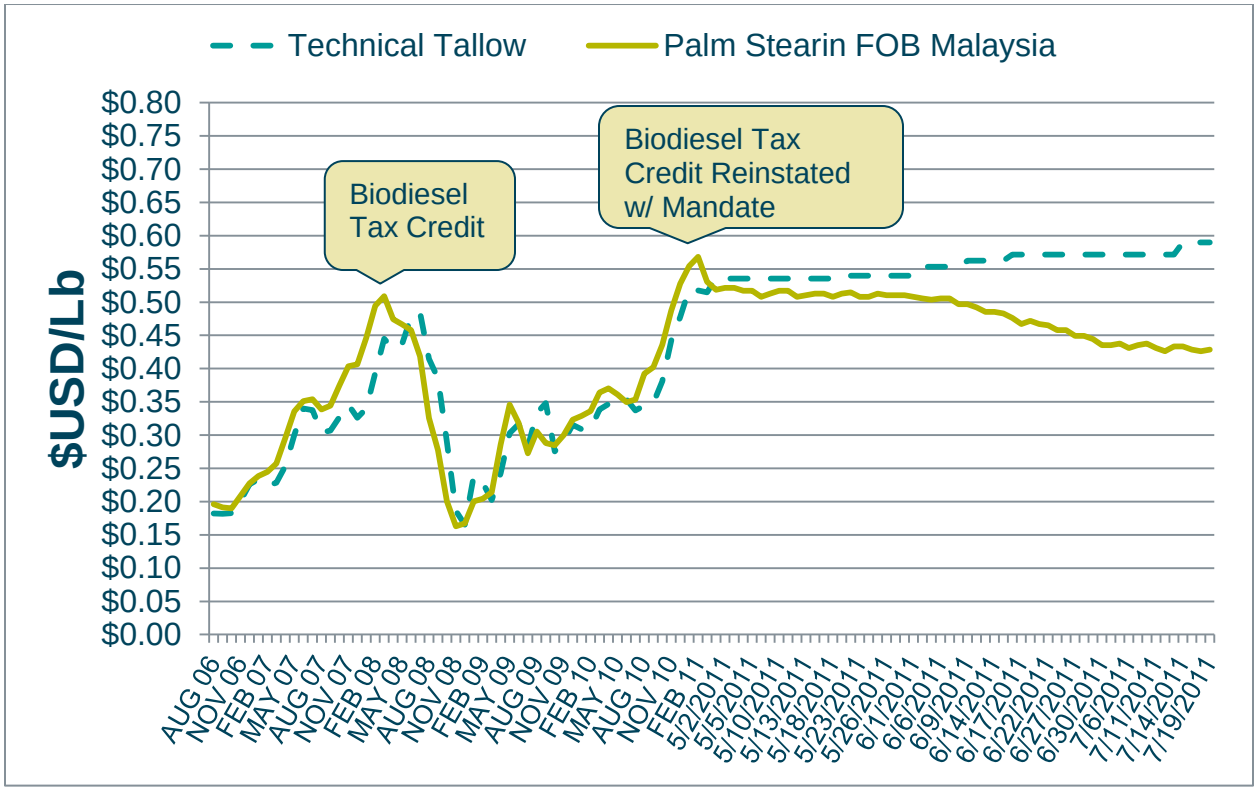
Source: The Jacobsen

The effect the RFS2 mandate and the $1.00 per gallon biodiesel and renewable diesel tax credits have had on the prices for animal fats and palm oil is shown in the table above and more dramatically on the graph below. A guaranteed market combined with a tax credit, has made the price of Malaysian palm oil cheaper than animal fats i.e. technical tallow, for the first time. This

[3] Source: The Jacobsen

foreign material source has become less expensive, thus making it an attractive alternative in product formulation. The price difference is a direct result of policies that have been created to entice and encourage the production of biodiesel and renewable diesel, at the expense of the domestic oleochemical industry.[4] The fact is that the higher prices caused by increased demand for animal fats cannot be offset by increased supply. This is the inelastic economic dilemma for oleochemical manufacturers.

Graph 1.



Source: The Jacobsen

The domestic oleochemical industry has traditionally maintained its production facilities near its raw material source. When these producers switch to a foreign-sourced palm oil, it will likely cause them to move their production facilities offshore. Should the switch from animal fats to palm oil occur, 20,000 jobs stand to be lost, further exasperating current economic conditions.

Animal Fats vs. Soyoil

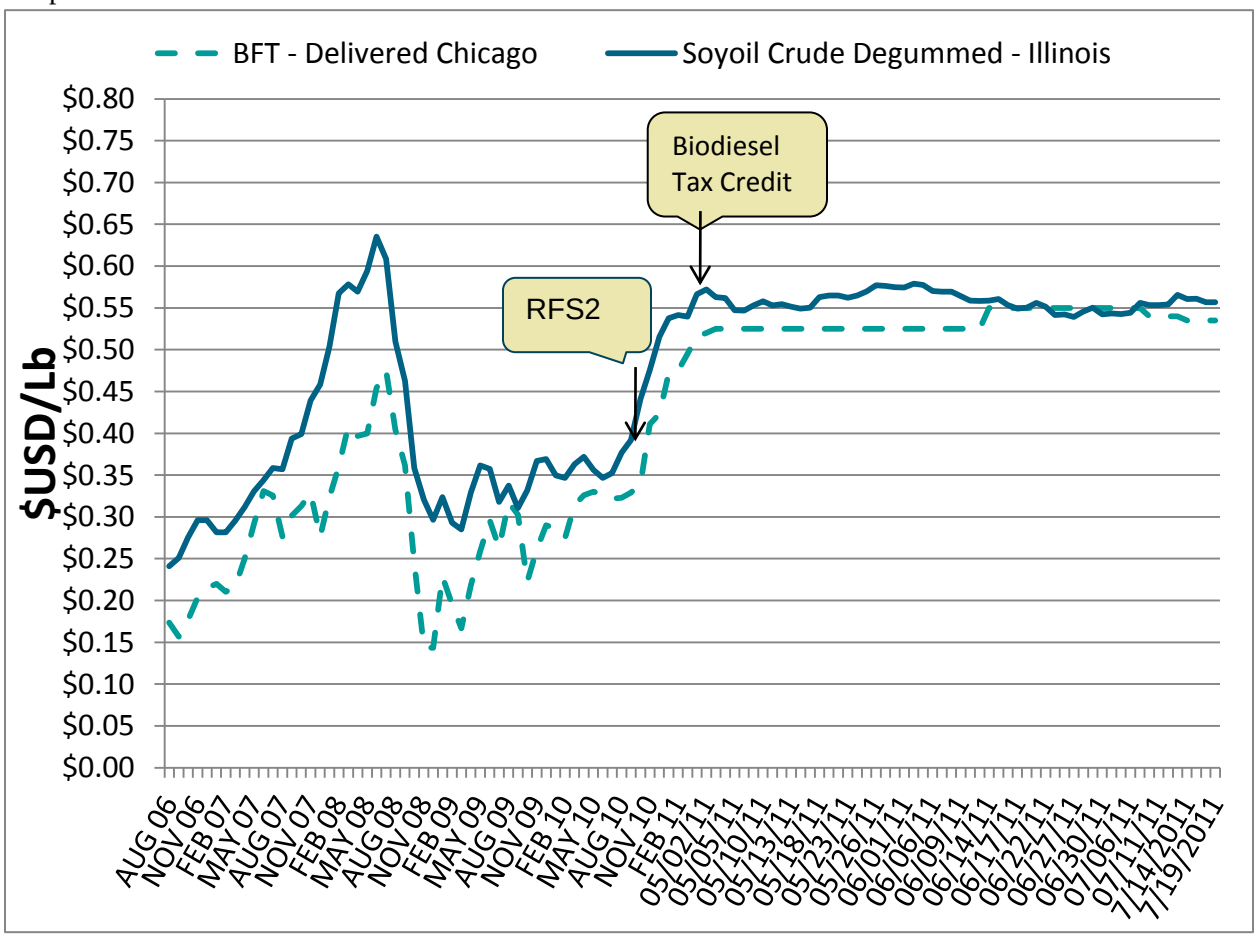
With respect to biodiesel production, soyoil is a more expensive feedstock option than animal fats. This is shown above in table 3 and on graph 2.[5] Initially, many biodiesel facilities were

[4] Ibid.
[5] Source: Ibid

built to operate using only one feedstock, e.g., soyoil. However, to provide more flexibility and the ability to use cheaper animal fats, many biodiesel producers now have multiple material facilities that can use either soy and animal fats.

Under the RFS2, there is no mechanism or trigger that limits the amount of animal fats that can be used as a biofuels feedstock. The proposed rule references information received from a large rendering company "suggesting that there will be adequate fats and greases to supply biofuels production as well as other historical uses." (pg. 38857) Yet, at the same time, the proposed rule references projections by the Department of Agriculture that "while over 400 million gallons of biodiesel will be produced from soybean oil in 2010", most of the remaining needed to meet the 1 billion gallon mandate will use animal fats or recycled greases. (pg. 38856) Further, the Agriculture Marketing Resource Center at Iowa State University projects more growth in non-soy oil feedstock volumes than soy oil. (pg. 38856) EPA also anticipates renewable diesel contributing toward the requirements for biomass-based diesel, which will intensify the pressures placed on the animal fats supply. As the following demonstrates, animal fats prices have risen with soyoil and their use continues to be advantageous for biodiesel producers.

Graph 2.



Source: The Jacobsen

Expansion of RFS2 Mandate Compounds Animal Fats Crisis: 7.5 pounds = 1 gal Biodiesel[6]

The market conditions outlined earlier do not take into account the effect the proposed 2012 requirement of 1.0 billion gallons or the 2013 proposed requirement of 1.28 billion gallons will have on the cost and availability of animal fats. Of further concern is EPA's proposed decision not to lower the advanced fuel mandate, based on the premise that biomass-based diesel, renewable diesel and other biofuels could fill the gap.

In 2009, when the Statute called for 0.5 billion gallons of biomass-based diesel, the Energy Information Administration (EIA) reported that 1.04 billion pounds of animal fats were used as inputs to biodiesel production.[7] Those 1.04 billion pounds of animal fats created approximately 186,666,667 gallons of biodiesel.[8] Total production of rendered products for that year was 4,437.3 (000 Metric Tons) or 9,782,571,951.73 pounds.[9]

10.6% of the supply of rendered products was used to produce 2009's biodiesel fuel.[10] There is nothing in EISA or the proposed rule that limits the amount of animal fats that can be used to meet the mandate. The usage of animal fats could range up to 100%. With no mechanism to limit the usage amount of any feedstock, had 100% of the 0.5 billion gallons been met through animal fats, 3.75 billion pounds of animal fats would have been used, taking 38% of all animal fats out of the market place.

Table 4.

U.S. Production of Rendered Products (000 Metric Tons)	**2009**	**2010**
Inedible tallow and greases (total):	2821.5	2668.1
Inedible tallow	1531.1	1511.2
Greases	1290.3	1156.9
Yellow grease	740.3	569.2
Other grease	550.0	588.3
Edible tallow	833.4	827.6

[6] Collins, Hal. Soil Scientist/Microbiologist, Vegetable and Forage Research Unit USDA-ARS, Prosser, WA http://www.whitman.wsu.edu/documents/USDAARSCollinsPpt.pdf

[7] U.S. Energy Information Administration/Monthly Biodiesel Production Report, Table 3. Inputs to Biodiesel Production, January through December 2009.

[8] 7.5 pounds of animal fats create 1 gallon of biodiesel. Collins, Hal. Soil Scientist/Microbiologist, Vegetable and Forage Research Unit USDA-ARS

[9] 1 metric tons = 2,204.62262 pounds; 4,437.3 Metric Tons (000) = 4,437,300 x 2,204.62262 = 9,782,571,951.726 pounds.

[10] 1.04 billion pounds used/9.78 billion pounds total productionx100=10.6% of 2009 production of rendered products.

U.S. Production of Rendered Products (000 Metric Tons)	2009	2010
Lard	157.0	130.4
Poultry fat	625.4	638.3
Subtotal	**4437.3**	**4264.5**
Year to Year Difference	**-139.10**	**-172.80**
Percent of Supply Change	**-3.13**	**-4.05**

Source: Render Magazine, April 2011

Table 5.

U.S. Production of Rendered Products (Pounds)	2009	2010
Inedible tallow and greases (total):	6,220,342,722.33	5,882,153,612.42
Inedible tallow	3,375,497,693.48	3,331,625,703.34
Greases	2,844,624,566.59	2,550,527,909.08
Yellow grease	1,632,082,125.59	1,254,871,195.30
Other grease	1,212,542,441.00	1,296,979,487.35
Edible tallow	1,837,332,491.51	1,824,545,680.31
Lard	346,125,751.34	287,482,789.65
Poultry fat	1,378,770,986.55	1,407,210,618.35
Subtotal	**9,782,571,951.73**	**9,401,613,162.99**
Year to Year Difference	**-306,663,006.44**	**-380,958,788.74**
Percent of Supply Change	**-3.13**	**-4.05**

Source: Render Magazine, April 2011

In 2010 the production of biomass-base diesel requirement increased to 0.65 billion gallons. Using the same assumptions and calculations, 4.875 billion pounds of animal fats could have been consumed for biodiesel, equaling nearly 52% of that year's total supply of rendered fats.

The 2013 volume of 1.28 billion gallons is expected to be met through the use of 2.85 billion pounds of animal fat. This represents 30% of the entire mandate and is also 30% of the entire production of animal fats in 2010.[11]

Table IV.B.2-1
Feedstocks Contributing to 2013 Volume of 1.28 billion gallons

Source	Volume (gal)	Potential Pounds Tallow
Yellow grease and other rendered fats	380,000,000	2,850,000,000 (30% of mandate)
Corn oil	300,000,000	

[11] 30% feedstocks = 2.85 billion pounds used/9.4 billion pounds total production (2010)x100.

Source	Volume (gal)	Potential Pounds Tallow
Virgin vegetable oil	600,000,000	
Total	1,280,000,000	9,600,000,000 (100% of mandate)

Source: EPA Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards

When using the IHS Global Insight Modeling, 20% of the mandate depends on 2.04 billion pounds of animal fats and an additional 1.387 billion pounds could be used to achieve 1.3 billion gallons, a potential total of 3.427 billion pounds, which would equal 36% of the entire production of animal fats in 2010.[12]

Table IV.B.2-2
Feedstocks Contributing to 2013 Volume of 1.3 bill gal from IHS Global Insight Modeling

Source	Volume (gal)	Potential Pounds Tallow
Yellow grease and other rendered fats	272,000,000	2,040,000,000 (20% of mandate)
Corn oil	185,000,000	
Soybean oil	624,000,000	
Canola oil	68,000,000	
Palm oil	7,000,000	
Other	185,000,000	1,387,500,000 (13% of mandate)
Total	1,340,000,000	10,050,000,000 (100% of mandate)

Source: EPA Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards

Using these models, 30 and 36% of total production of animal fats shows the dramatic increase the RFS2 mandate has had on the supply of animal fats from 2009 when 10.6% of the total production was used.

Table IV.E-1 in the proposed rule provides projections of biomass-based diesel after 2012 (bill gallons). Below is a copy of that table and the potential impact these mandated fuel amount would have on the supply of animal fats.

Table IV.E-1
Projections of biomass-based diesel after 2012 (gallons)

Year	RFS2 Final Rule	Potential Pounds Tallow	IHS Global Insight Report	Potential Pounds Tallow
2013	1,280,000,000	9,600,000,000	1,340,000,000	10,050,000,000
2014	1,390,000,000	10,425,000,000	1,500,000,000	11,250,000,000
2015	1,530,000,000	11,475,000,000	1,810,000,000	13,575,000,000
2016	1,560,000,000	11,700,000,000	2,180,000,000	16,350,000,000

[12] 36% feedstocks = 3.427 billion pounds used/9.4 billion pounds total production (2010)x100.

Year	RFS2 Final Rule	Potential Pounds Tallow	IHS Global Insight Report	Potential Pounds Tallow
2017	1,600,000,000	12,000,000,000	2,530,000,000	18,975,000,000
2018	1,640,000,000	12,300,000,000	2,740,000,000	20,550,000,000
2019	1,680,000,000	12,600,000,000	3,000,000,000	22,500,000,000
2020	1,720,000,000	12,900,000,000	3,140,000,000	23,550,000,000
2021	1,770,000,000	13,275,000,000	3,230,000,000	24,225,000,000
2022	1,820,000,000	13,650,000,000	3,300,000,000	24,750,000,000

Source: EPA Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards

In 2009 1.040 billion pounds of animal fats were used to help meet that year's 0.5 billion gallon mandate. A mandate of 1.72 billion gallons could use anywhere from 3.536 billion to 12.9 billion pounds of animal fats.[13] The conservative estimate of 3.536 billion pounds assumes that the percentage animal fats used in the production of biofuels remains at that 2009 level.

If the 2013 biodiesel mandate was in effect in 2009, the 3.536 billion pounds of animal fats would equal 36% of that year's supply of rendered products. If the same mandate were in effect in 2010, it would have used 38% of that year's total supply.

Should Biomass-Based Biodiesel producers use only animal fats, the demand would greatly exceed the supply of that material. The use of only animal fats would mean 12.9 billion pounds of animal fats went into the production of biofuels, which is 3.2 billion more pounds than the total U.S. production of rendered products in 2009 and 3.5 billion pounds more than were produced in 2010. Without a mechanism that prevents the mandate to be filled from biodiesel solely produced from animal fats, the total animal fats supply could be completely consumed by biofuel producers.

2013 call for 30% and 36% of biofuels to come from animal fats

The 2013 projection of feedstocks that would be needed to meet that year's 1.28 billion gallon mandate relied on 30% of the total to be derived from animal fats. That increases to 36% using the IHS Global Insights Report. If that occurs, 38% of the animal fats supply would go to the production of biodiesel and should other feedstocks fall short, 100% of the total supply of animal fats could be used to make up the difference.

[13] 3.536 billion = 17.2/0.5 =3.4; 3.4 * 1,040,000,000 pounds (2009 usage) = 3,536,000,000

Table IV.E**:** Projections of biomass-based diesel after 2012 (gallons)
EPA Modeling

	RFS 2 Final Rule	**Potential Pounds Tallow**	**30% usage of animal fats modeling from 2013 projections**	**Potential Pounds Tallow**
2013	1,280,000,000	9,600,000,000	384,000,000	2,880,000,000
2014	1,390,000,000	10,425,000,000	417,000,000	3,127,500,000
2015	1,530,000,000	11,475,000,000	459,000,000	3,442,500,000
2016	1,560,000,000	11,700,000,000	468,000,000	3,510,000,000
2017	1,600,000,000	12,000,000,000	480,000,000	3,600,000,000
2018	1,640,000,000	12,300,000,000	492,000,000	3,690,000,000
2019	1,680,000,000	12,600,000,000	504,000,000	3,780,000,000
2020	1,720,000,000	12,900,000,000	516,000,000	3,870,000,000
2021	1,770,000,000	13,275,000,000	531,000,000	3,982,500,000
2022	1,820,000,000	13,650,000,000	546,000,000	4,095,000,000

Source: EPA Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards

Table IV.E-1: Projections of biomass-based diesel after 2012 (gallons)
IHS Global Insights Report Modeling

	RFS 2 Final Rule	**IHS Global Insight Report**	**Potential Pounds Tallow**	**36% usage of animal fats modeling from 2013 projections**	**Potential Pounds Tallow**
2013	1,280,000,000	1,340,000,000	10,050,000,000	482,400,000	3,618,000,000
2014	1,390,000,000	1,500,000,000	11,250,000,000	540,000,000	4,050,000,000
2015	1,530,000,000	1,810,000,000	13,575,000,000	651,600,000	4,887,000,000
2016	1,560,000,000	2,180,000,000	16,350,000,000	784,800,000	5,886,000,000
2017	1,600,000,000	2,530,000,000	18,975,000,000	910,800,000	6,831,000,000
2018	1,640,000,000	2,740,000,000	20,550,000,000	986,400,000	7,398,000,000
2019	1,680,000,000	3,000,000,000	22,500,000,000	1,080,000,000	8,100,000,000
2020	1,720,000,000	3,140,000,000	23,550,000,000	1,130,400,000	8,478,000,000
2021	1,770,000,000	3,230,000,000	24,225,000,000	1,162,800,000	8,721,000,000
2022	1,820,000,000	3,300,000,000	24,750,000,000	1,188,000,000	8,910,000,000

Source: EPA Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards

Discretion must be applied

Long term usage and reliance on animal fats to produce biofuels is not viable. There simply is not enough production volume to meet the growing demand for biodiesel and there is little likelihood that the supply of animal fats will increase. Eventually biodiesel producers will have

to use feedstocks other than animal fats. This inevitability should cause EPA to exclude their usage in 2012 and beyond to drive the use of more sustainable feedstock supplies. This would go a long way toward protecting the continued viability of the U.S.-based oleochemical industry. Without a consistent and adequate supply of animal fats as a feedstock for the production of oleochemicals, the industry will need to turn to other non-US sourced feedstocks, which over time could result in the US losing this industry.

EPA must use its discretionary authority to ensure adequate supply of these feedstocks for all industries, not just biofuels. EPA should limit the percentage of animal fat supply that can be used in the production of biofuels or eliminate animal fats as a feedstock option. It is unfair to place such a heavy burden on a source that is as inelastic as animal fats. By doing so, EPA is deciding which industry wins and which one loses. The domestic oleochemical industry has provided decades of economic strength and security. Consequently, we urge the EPA to maximize the use its discretion to limit, rather than expand the use of animal fats under the RFS2. The future of a longstanding domestic industry is at stake.

Respectfully submitted,

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Appendix A

Representative Oleochemical Uses

Daily toiletry care
Soap (liquid/bar)
Toothpaste
Shaving Cream
Moisturizing body Cream
Mouthwash
Cosmetic creams
Shampoo
Hair conditioner
Make-up
Body washes
Hand lotions
Nail Care products

Clothing Care
Detergents
Fabric softener
Stain removers

Cleaning/homes/buildings
Hard surface cleaners & sanitizers
Dish detergent (hand/machine)
Glass cleaner
Candles
Air fresheners

Other Uses:
Tires
Various rubber products
Pharmaceuticals
Building materials - foams
Lubricants
Mattresses
Automobiles - car dashboards
Inks
Paints
Textile fiber finishing
Fragrances (carriers)
Adhesives
Resins
Plastics
Water treatment materials
Paper Processing
Hydraulic Fluids
Corrosion inhibitors
Dairies - food processing
Agriculture-dispersing agent