Alliance for Telomer Chemistry Stewardship

July 30, 2021

Rae Eaton
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Draft—Food Packaging Applications and Candidate Alternatives to PFAS for the Second Alternatives Assessment.

Dear Ms. Eaton:

On behalf of the Alliance for Telomer Chemistry Stewardship (ATCS), I appreciate the opportunity to submit the following comments in response to the Draft—Food Packaging Applications and Candidate Alternatives to PFAS for the Second Alternatives Assessment (hereafter the "Draft Scope Document"). [1]

ATCS is a global organization whose members are leading manufacturers of C6 fluorotelomer based products[2]. Our mission is to promote the responsible production, use, and management of fluorotelomer based products, while also advocating for a sound science- and risk-based approach to regulation.

We have several concerns with the Draft Scope Document.

First, Ecology's new approach to defining "food packaging applications" is seriously flawed and inconsistent with the intent of RCW 70A.222.070. Although the Draft Scope Document states that the new approach is "based on the function" of different food packaging products, Ecology's approach actually disregards the intended function of the packaging and appears to focus, instead, on packaging geometry. This is exemplified by the newly-identified "closed containers" packaging application, which Ecology describes as follows:

> Containers that enclose food on all sides. Interlocking pieces or overlapping walls hold the container closed for transport. Examples include clamshells, food pails, bakery boxes, and deli containers.[3]

This definition – which Ecology intends to use to describe a ***single*** packaging application – actually encompasses a broad spectrum of packaging with widely disparate performance requirements. For example, a bakery box intended for use with dry baked goods serves a very different function – with very different performance requirements – as compared to a clamshell or food pail intended for use with wet, heated food. The law requires that, as part of its alternatives assessment ("AA"), Ecology must evaluate whether an alternative will "perform as well as or better than PFAS chemicals in a specific food

[1] https://www.ezview.wa.gov/Portals/_1962/Documents/PFAS-Food/PFASAA_SecondAA_DraftScope.pdf
[2] https://www.americanchemistry.com/Alliance-for-Telomer-Chemistry-Stewardship/
[3] Scope Document at 3.

1121 L Street, Suite 609 | Sacramento, CA | (916) 448-2581

packaging application."[4] This language clearly indicates that, for purposes of the AA, food packaging applications must be categorized by their functional performance characteristics so that, for a "specific food packaging application" the functional performance of a potential alternative can be compared against the functional performance of PFAS. By defining a packaging application – such as "closed container" -- to encompass a wide range of disparate functional performance requirements and characteristics, Ecology is circumventing the intent of the Legislature. Thus, for example, Ecology's approach would seem to allow the agency to conclude that because a suitable alternative exists for boxes intended to hold dry baked goods, that alternative is also suitable for "closed containers" designed to hold and transport wet, heated food. This result is clearly at odds with the intent of the Legislature in addition to being unreasonable.[5]

Second, it is inappropriate for Ecology to include mold release agents within the scope of the AA. RCW 70A.222.070 applies to "food packaging to which PFAS chemicals have been intentionally added." Mold release agents are applied to the molds used to form molded fiber packaging. While it is possible that trace amounts of these agents may inadvertently remain as a residue with the finished molded fiber packaging, these materials are not deliberately added to the final packaging and their presence, if any, in the molded fiber packaging does not impart any desired characteristics to the packaging. Since mold release agents are not intentionally added to molded fiber packaging, Ecology would be acting in a manner inconsistent with the law if it were to include these agents within the scope of the AA.

Third, the Draft Scope Document suggests that Ecology intends to consider "system alternatives" to fiber-based packaging. As described by Ecology, the term "system alternatives" appears to refer to the substitution of washable and reusable packaging in place of single use packaging. In other words, Ecology seems to be asserting that, as a "system alternative" to PFAS, businesses in Washington State could be forced to alter their business models – for example, by eliminating take-away dining options and making capital investments to accommodate washable packaging in lieu of using fiber-based packaging. Nothing in the law suggests that Ecology is empowered to require Washington State businesses to fundamentally change their business models as an "alternative" to PFAS used in paper packaging. Such action would be arbitrary and capricious and Ecology would be significantly overstepping its authority under RCW 70A.222.070 if it were to pursue this approach. Similarly, it strains credulity to imply that radical business model changes could constitute a "readily available" alternative, as required by the law.

In addition to the proposed changes to the AA enumerated above, we have broader concerns about the AA process, including the following:

- **Stakeholder Participation** We commend Ecology for its outreach to stakeholders and its efforts to keep the public and stakeholders informed of the agency's progress in developing both the first and second AAs through the use of webinars, emails and regular updates of the food packaging AA website. However, the process Ecology followed for the first AA had glaring deficiencies that must be corrected in the second AA. Most importantly, stakeholders were not given the opportunity to review and provide comment on the draft AA. This is a critical deficiency because, for most of the key elements of the AA, such as cost, availability and

[4] RCW 70A.222.070(3)

[5] Indeed, the approach suggested by Ecology would be workable (and consistent with legislative intent) only if Ecology were to focus its assessment on the most demanding performance requirements within a given application (e.g., containing and transporting wet, heated food) when assessing whether an alternative performs "at least as well as" PFAS in that specific packaging application.

performance, Ecology had not previously articulated ***what*** specific data it was using as inputs into its final analysis, nor had Ecology explained ***how*** it was interpreting that data to arrive at the central conclusions of the AA. For example, in assessing cost comparability, Ecology relied on inconsistent data regarding the pricing and availability of alternatives and Ecology assumed that a 10% cost increase was "comparable" cost for purposes of RCW 70A.222.070. Stakeholders did not have an opportunity to comment on either of these aspects of Ecology's analysis because they were first articulated in the draft AA – which stakeholders were not allowed to review or comment on. In addition, Ecology failed to respond, in any systematic, reviewable way, to the stakeholder comments that were received during the course of the AA process (e.g., through a response to comments document or a section of the AA devoted to responding to substantive comments). These two failures effectively eviscerate the stakeholder participation process and allow Ecology to reach conclusions in the AA that may be based on inaccurate data and inappropriate or unreasonable assumptions. Ecology must correct these procedural flaws in the second AA by: (i) allowing stakeholders to review and comment on the draft AA before it is sent to peer review; and (ii) summarizing and responding to substantive comments raised by stakeholders.

- **Use of unscientific, promotional information** For key aspects of the AA, such as the performance of alternatives as compared to PFAS, Ecology based its findings on advertising and promotional materials produced by the companies selling and marketing those alternatives, rather than objective, scientific data. Examining a product's advertising claims may provide information, but provides no information on the product's actual performance with supporting data. In order to credibly ascertain whether a given alternative performs as well as, or better than, an approved PFAS chemical -- as required by the statute -- Ecology must rely on objective, scientific data. Specific test methods have been widely adopted within the food industry to assess the performance requirements of different food packaging applications. These tests are standardized through such industry associations as the Technical Association of the Pulp & Paper Industry (TAPPI). The most commonly used oil and grease resistance tests are commonly referred to as the Kit test (TAPPI T559) and turpentine test (TAPPI T454). If the results of the AA are to be credible and reliable, Ecology must use verified data from these types of scientific tests to determine whether an alternative performs as well as, or better than, an approved PFAS chemical for a particular application. Ecology's willingness to rely on advertising and promotional materials as an indicator of performance may be related to the agency's apparent decision that alternatives do ***not*** need to perform as well as PFAS because PFAS used in packaging products "set an unnecessarily high standard for performance" (*PFAS in Food Packaging Alternatives Assessment*, February 2021 at p. 80). This assertion by Ecology ignores the express language of the statute, which requires that "[i]n order to determine that safer alternatives are available, the safer alternatives ***must*** . . . perform ***as well or better*** than PFAS chemicals in a specific food packaging application." (emphasis added). The statute does not grant Ecology the authority to determine that PFAS performance is "unnecessarily high;" it requires Ecology to conclude that alternatives perform at the high level provided by PFAS – or better.

- **Inadequate assessment of economic impacts** As discussed previously, Ecology concluded in the first AA that a 10% increase in the price of packaging is acceptable and signifies that an alternative is available "at a comparable cost" to PFAS packaging. (*PFAS in Food Packaging Alternatives Assessment*, February 2021 at p. 113). Remarkably, there is no indication from the AA that Ecology assessed – or even considered – the economic impacts that a 10% increase in

packaging costs could have on small businesses in Washington State, as well as consumers in underserved communities and food insecure populations in the State. We urge Ecology to evaluate these impacts in the second AA.

ATCS appreciates the opportunity to provide these comments and we look forward to the continued discussions on this important topic. We welcome continued dialogue and providing additional information. If you have any questions or comments, please contact me at shawn_swearingen@americanchemistry.com

Sincerely,

Shawn Swearingen
Director, ATCS

Advances in Paper & Board Treatment for Food & Specialty Packaging

Wes Blanding & Frank Adamsky, Ph.D.

Daikin America, Inc.

Outline:

- Requirements for oil & grease barrier performance in food & specialty packaging
- Regulatory support for new-generation fluorochemicals
- Chemistry & structural/performance relationships
- Commercial & retail applications & trends

Requirements for Barrier Performance

- Paper & board grease barrier packaging can be broadly categorized into 4 groups:
  - Wrap & containers for Quick Service Restaurants (QSR)
  - Multiwall bag for retail & pet food
  - Popcorn bag (with microwave susceptor)
  - Specialty & retail box

Requirements for Barrier Performance

- The types of barrier chemistries in use:
  - Film (physical) barriers
    - Hydrocarbon – LDPE, PP, wax
    - Synthetic – PVAc, PET, cPET, PVOH
    - Latex – acrylic, styrene acrylic, SB, vinyl acrylic
    - Natural – modified starches
  - Chemical barriers
    - Perfluoroacrylate copolymers (PFA)
    - Perfluoropolyethers (PFPE)
  - Other
    - Pigment – hyper-platy kaolin

Requirements for Barrier Performance

- Measures of grease barrier performance:
  - Mill/general tests:
    - Kit, folded Kit,
    - Hot oil
    - RP-2, AGR
    - Turpentine
  - Real world tests:
    - Jungle room
    - Hot box
    - Test Kitchen

Worldwide Regulatory Update

- Grades made using fluorochemistry in the paper industry are moving to PFOA-free treatments.
  - Many definitions of PFOA-free
- Support is global for new PFOA-free fluorochemistries as evidenced by approvals.
  - EPA, FDA, BfR, FSA, China MOH, METI, Health Canada, etc.

Worldwide Regulatory Update

No concern over fluorinated chemical levels in food - FSA

By Rory Harrington, 20-Oct-2009

There are no human health concerns over current dietary exposure to a range of fluorinated chemicals, such as PFOS and PFOA, the UK Food Standards Agency (FSA) has said

The food safety watchdog came to its conclusion after testing a range of retail foods for fluorinated substances - including perfluorooctane sulphonate (PFOS) and perfluorooctanoic acid (PFOA).

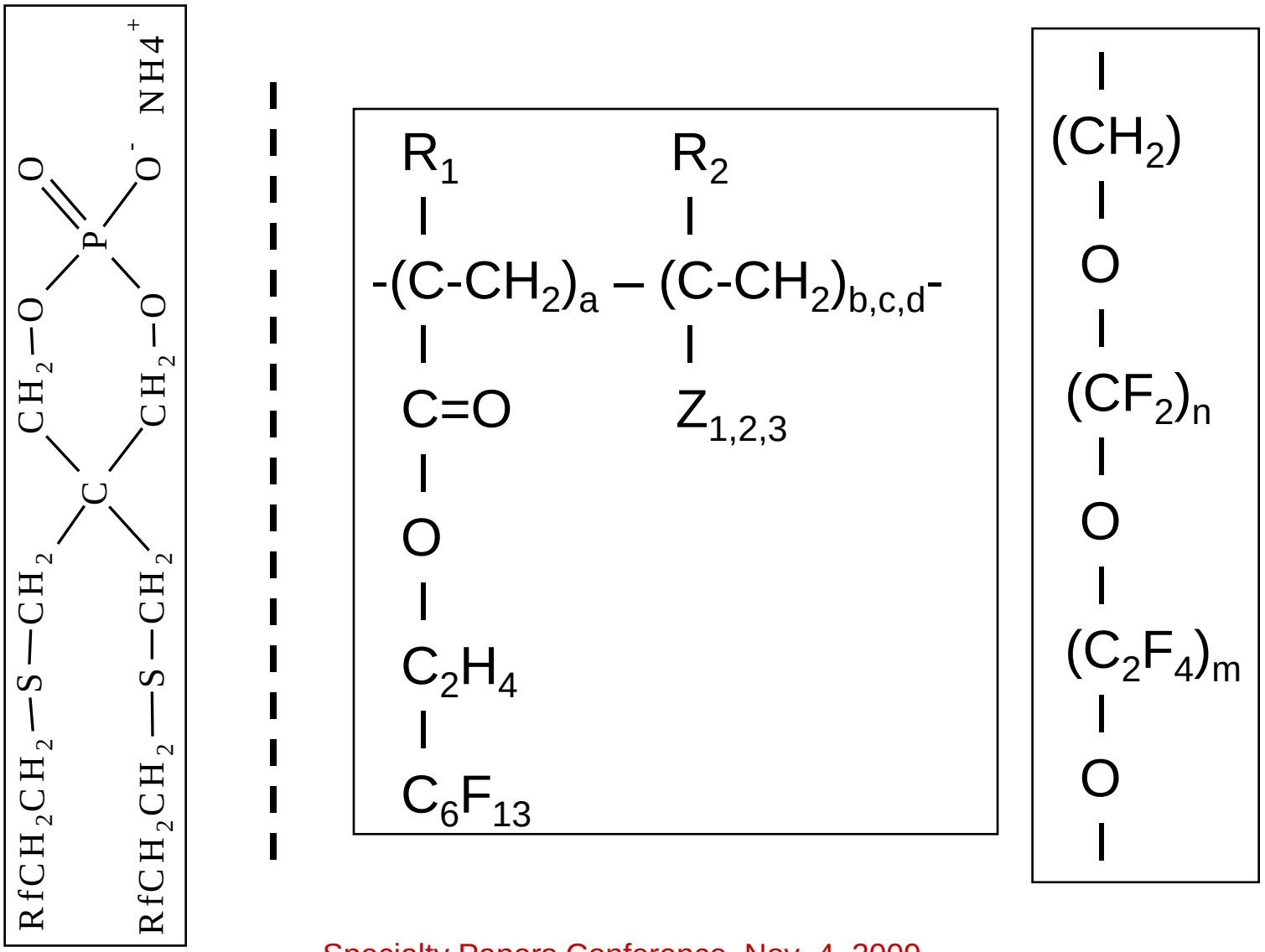
Results from the tests showed that average adult dietary intake of the chemicals in 2007 fell well below tolerable daily intake levels set by the European Union, said the FSA.

http://www.foodproductiondaily.com/Quality-Safety/No-concern-over-fluorinated-chemical-levels-in-food-FSA

Chemistry Structure/Performance

- Types of fluorochemicals:
  - Polymeric – best from environment/transport
    - Perfluoroacrylate (PFA) – C-6 and C-4 copolymers
    - Perfluoropolyether (PFPE) – C-2/C-3 cross-linked
  - Surfactant – best for performance
    - Fluorophosphate – C-8 phosphate ester

Chemistry Structure/Performance



Performance – OGR chemistries in lab

Fluorochemistry		PFA U1	PFA U2	PFPE 1	PFPE 2	PFA A	C-8 Surf
Ionic Charge		anionic	nonionic	anionic	anionic	cationic	(phos)
Repellency	Cobb60	28	101	100	95	20	81
	Kit	9.5	6.5	7	3.5	4.5	6.5
	Turpentine (sec)	1800+	60	180	0	60	1800+
	Hot Oil	5	5	5	3	5	

Paper: 60 lb/3300 sq.ft. bleached, lab size press
Starch: ethylated corn, 1.5%
Fluorochemical: 0.2% OWB

Performance – OGR on Paper & Board

Performance comparison on various paper grades

	Kit			Hot Oil		
Paper	**PFA U2**	**PFPE 1**	**PFA A**	**PFA U2**	**PFPE 1**	**PFA A**
Lab hand sheet (70)	8	7	9	5	5	5
Bleached (46)	10	5	8	5	3	4
Unbleached (34)	8	5	7	5	5	5
Bleached (34)	9	8	7	5	5	5
Bleached (60)	7	6	5	5	5	4
Bleached (90)	9	6	2	5	5	0
Bleached (120)	8	6	5	5	5	0
Bleached Board (280)	6	5	0	4	5	0

( ) : weight of paper, gsm

Performance – OGR in Pilot Trial

Paper: 20.5 lb/3300 sq.ft. bleached
Application: pond size press
Starch: ethylated corn

Performance comparison at low dosage

On high speed pilot size press

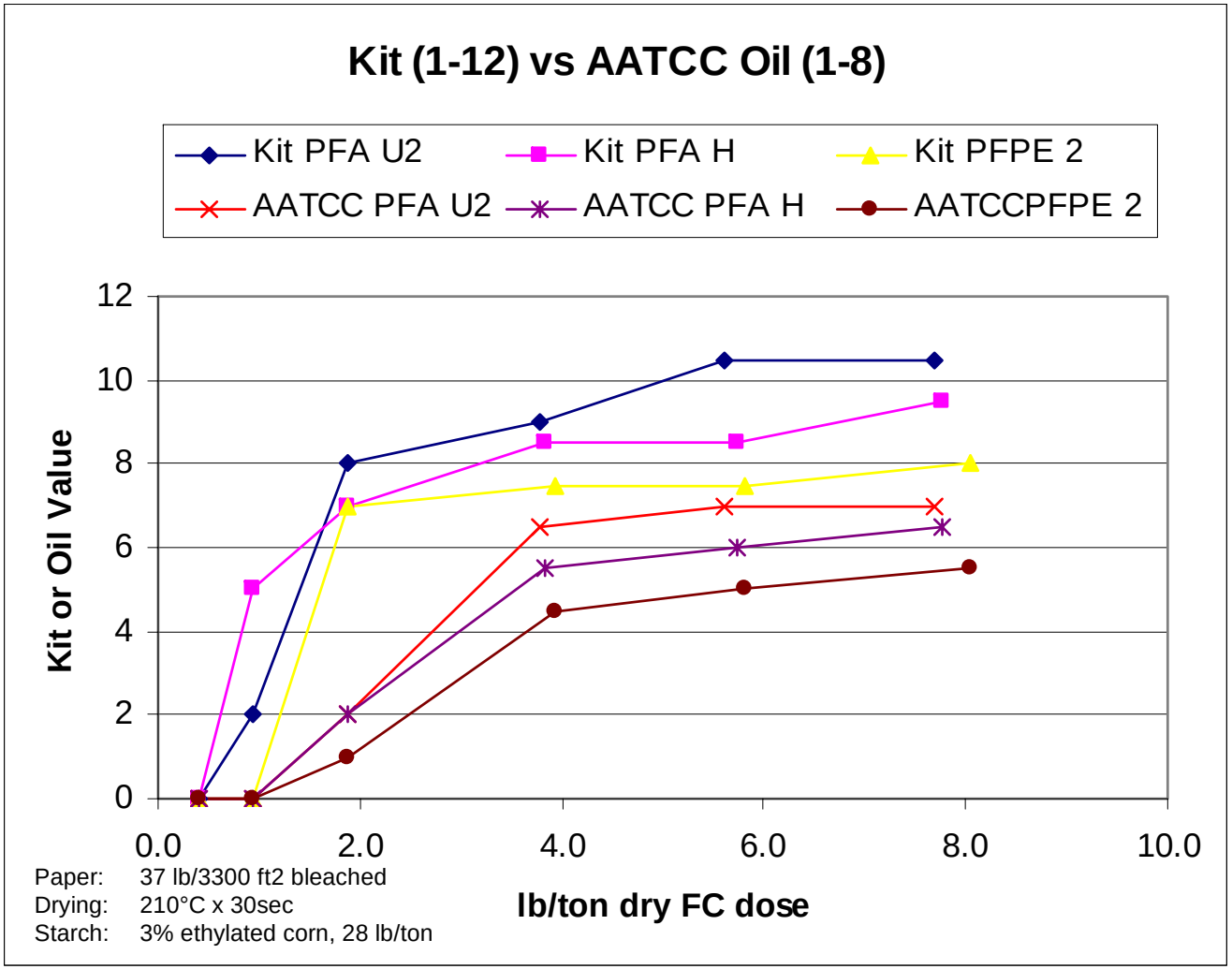
Sample	Product	Starch	# dry/ton	% product in solution	Kit	Other Kit	Hot corn oil	Hot olive oil
1	PFA U2	2%	1.0	0.25	5	4	4	4
2		2%	2.0	0.5	8	4	5	4
3		4%	1.0	0.25	6	4	4	4
4		4%	2.0	0.5	8	6	5	5
5	PFPE 1	2%	1.0	0.25	3	3	0	0
6		2%	2.0	0.5	5	4	4	3
7		4%	1.0	0.25	2	3	0	0
8		4%	2.0	0.5	4	4	4	4

Performance – OGR Alternative Tests

3M Kit test has its drawbacks

There are alternatives we can borrow from other industries

AATCC method 118-2007 Equivalent to ISO 14419



Retail Applications/Trends

- Retailers have gone to great lengths to hide oil & grease stains in packaging
  - Opportunity exists to simplify the package to reduce costs & improve target performance

Retail Applications/Trends

- Focus continues on optimizing the package economics, environmental impact & marketing value
  - Mini-flute for lower weight/better insulation
  - Coated outer layers for improved print quality
  - Replacement of EPS (California)

Retail Applications/Trends

- Retail packaging alternatives to paper & board continue to be a force
  - Multi-wall bag continues to face PP challenge
  - This is an area where paper can win back share on the environmental front

Retail Applications/Trends

- Products going into the packages continue to evolve & require higher performance
  - Oils used in preparing foods are changing in attempts to improve health impacts
  - This in turn can lead to higher performance requirements in the packaging

Retail Applications/Trends

- Future trends
  - Molded pulp QSR
  - Press-applied barrier
  - Increased focus on recyclability
  - Environmental ‘depth-check’

The obscure we see eventually. The completely obvious, it seems, takes longer. ~Edward R. Murrow

Thank you

Wes Blanding,
blanding@daikin-america.com
Office: 256-260-6345

Frank Adamsky, Ph.D.,
adamsky@daikin-america.com
Office: 256-306-5456

Daikin America, Inc.
905 State Docks Road
Decatur, AL 35603
www.daikin-america.com

Market-based performance requirements for barrier-treated specialty paper & board

Dr. Joseph N. Ishley, Daikin America, Inc.

Dr. Frank A. Adamsky, Daikin America, Inc.

Oil & Grease Resistant Paper & Board

- *Markets – by segment & history*
- *Trends – growth by segment*

Regulatory updates

- *FDA – effective phase out C-8 in 2011*
- *EPA – continued PMN's for C-6*

Paper & Board Market Overview

- Overall North American Fluorochemical-treated tons:

  301,300 tpy all segments, all grades

  - 48,500 tpy popcorn
  - 68,000 tpy pet food
  - 184,800 tpy QSR/retail

  6.31 million lb/yr FC supplied for these tons

  - 1,010 klb/yr popcorn
  - 1,950 klb/yr pet food
  - 3,350 klb/yr QSR/retail

A Brief History

Before 1999: 90+% one supplier

- 10 million lb/yr sold into North America
- 90+% electrofluorination – surfactant-type

1999~2007

- Use drops to 3.5 million lb/yr in North America
- Switch to C-8 acrylate and then C-6 and C-2/C-3 types (PFPE)
- Chemistry moving from surfactant to polymer-type

2008~present

- Use just starting to tick up ~4+ million lb/yr
- C-8 phased out (Aug. 2011), C-6 acrylate phasing in by FDA & EPA, etc…

Retail trends

- QSR –
  - maybe >2% (greater than GDP)
  - # of checks flat, but $/check up
- Pet food
  - estimated >5% from 2011
  - aging pet population & boomer spending
- Popcorn
  - near 2% growth from 2011
  - new packaging/flavors

North American Market Status





Daikin America customer conversion by market segment:

- **Carpet** – Conversion completed in 2008.
- **Nonwoven** – Complete conversion by end of 2012.
- **Paper** – No phase out. Entered market with C6.
- **Textile** – Complete conversion by end of 2012.

Evolution of EPA policy on PFOA

- **Initial EPA response (2000-2005)**
  - Information collection (e.g., ECA proceeding)
  - Risk assessment (e.g., 2005 draft, SAB proceeding)
  - Site-specific assessments (e.g. 3M, DuPont MOUs)
- **Voluntary Phase Out (2006-2015)**
  - Voluntary PFOA Stewardship Program
  - Supporting research and development of alternatives
  - International cooperation on stewardship programs
- **Current Activities**
  - Long-Chain (C8 and Longer) Perfluorinated Chemicals Action Plan
    - Regulatory backstop for PFOA Stewardship Program
    - Targeting Regulation of imported articles (i.e., apparel, rugs, furniture, etc.)

C6 – New Direction

- U. S. EPA 2010/2015 Voluntary PFOA Stewardship Program
  - 95% Reduction of PFOA from plant emissions and products by 2010
    - - Daikin achieved 1 year early
  - Eliminate PFOA from plant emissions and products by 2015
    - - Daikin will achieve 3 years early (2012)

- EPA, FDA, BfR, CEPA, DSC, METI, and several other regulatory organizations have approved C6 as alternatives to C8's.
  - EPA has reviewed more than 100 Pre-manufacturing Notices (PMNs) since new information on C-6 became available and added the new chemicals to the TSCA Inventory
    - Daikin has successfully listed many, specifically engineered, C6 telomer chemistries.
    - Daikin has completed all testing required by EPA under TSCA.

FDA Update

- Most everyone familiar with 21CFR 176.170 & 176.180 – positive list style
  - 176.170 aqueous/fatty foods
  - 176.180 dry foods
- FDA began implementing FCN process in 2000
  - Allows live link to FDA
  - Should contain environmental assessment

http://www.fda.gov/Food/FoodIngredientsPackaging/FoodContactSubstancesFCS/ucm116567.htm

http://www.accessdata.fda.gov/scripts/fcn/fcnNavigation.cfm?rpt=opaListing

FDA Update

- FDA now works off of conditions A-J for FCN's
  - Table 2--Condition of useHigh temperature heat-sterilized (e.g., over 212 deg.F).
  - A - Boiling water sterilized.
  - B - Hot filled or pasteurized above 150 deg.F.
  - C - Hot filled or pasteurized below 150 deg.F.
  - D - Room temperature filled and stored (no thermal treatment in the container).
  - E - Refrigerated storage (no thermal treatment in the container).
  - F - Frozen storage (no thermal treatment in the container).
  - G - Frozen or refrigerated storage: Ready-prepared foods intended to be reheated in container at time of use:
  - H - Aqueous or oil-in-water emulsion of high- or low-fat or aqueous, high- or low-free oil or fat.
  - I - Irradiation
  - J - Cooking at temperatures exceeding 250 deg.F.

http://www.fda.gov/Food/FoodIngredientsPackaging/FoodContactSubstancesFCS/ucm109358.htm

Oil & Grease Resistant Paper & Board

Technical Aspects

- *End Use Applications*
- *Test Methods*
- *Methods of Application*
- *Types of Barrier Chemistries*
- *Use in Baking Sheet Papers*
- *Best Practices for the Use of FC*

Fluorochemical Treatment for Paper & Paperboard

Reason for Treatment

- To impart Oil & Grease Resistance (OGR) to food-contact papers and paperboard.
- This allows the seller of the finished product to present a clean & healthy image, thus protecting the brand value.

Typical End Uses

- Fast food wraps/folded carton
- Pizza boxes
- Bakery/confectionary papers
- Paper plates
- Boxes for oily mechanical parts
- Pet food bags
- Fresh produce shipping boxes
- Microwavable popcorn bags

Performance Test Methods

- **Measures of grease/solvent barrier performance**

Mill/General tests:

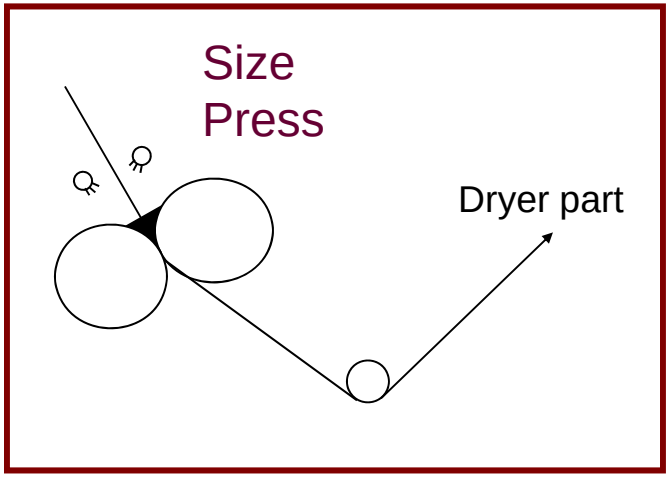
- Kit, folded Kit,
- Hot oil & saline
- RP-2, AGR
- Turpentine
- Charcoal Lighter Fluid
- Baking Tests
- Mill Specific

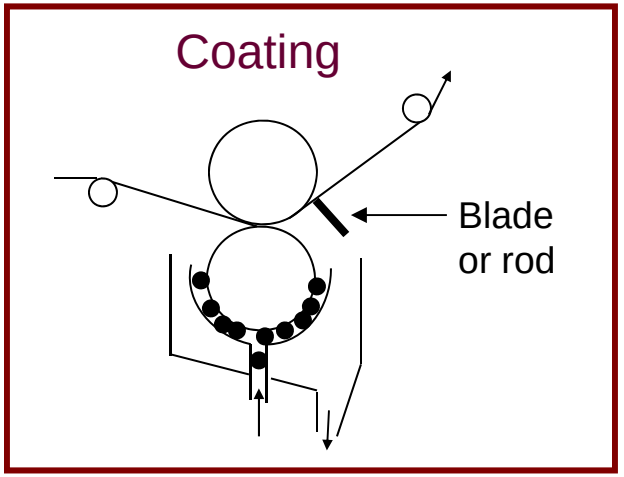
Real world tests:

- Jungle room
- Hot box
- Test Kitchen

Methods of Application

(1) Surface application by size press or calendar box or blade/rod coater





(2) Internal application by direct addition to pulp

- For applications that need folded performance
- Topic for a future presentation

Typical Barrier Chemistries In Use

The types of barrier chemistries in use:

Film (physical) barriers

- Hydrocarbon – LDPE, PP, Wax
- Synthetic – PVAc, PET, cPET, PVOH
- Latex – Acrylic, Styrene acrylic, SB, Vinyl acrylic
- Natural – Modified starches

Chemical barriers

- Perfluoroacrylate copolymers (PFA)
- Perfluoropolyethers (PFPE)

Other

- Pigment – hyper-platy kaolin

Use of FC in Grease Resistant Baking Papers

Types of Baking Sheet Substrates

- Silicone Treated Papers
  - Most Expensive
  - Easy Release
  - Withstands High Temperatures
  - Can Be Multi-use
- Parchment Paper
  - Slightly Less Expensive
  - Lower Performance

Use of FC in Grease Resistant Baking Papers

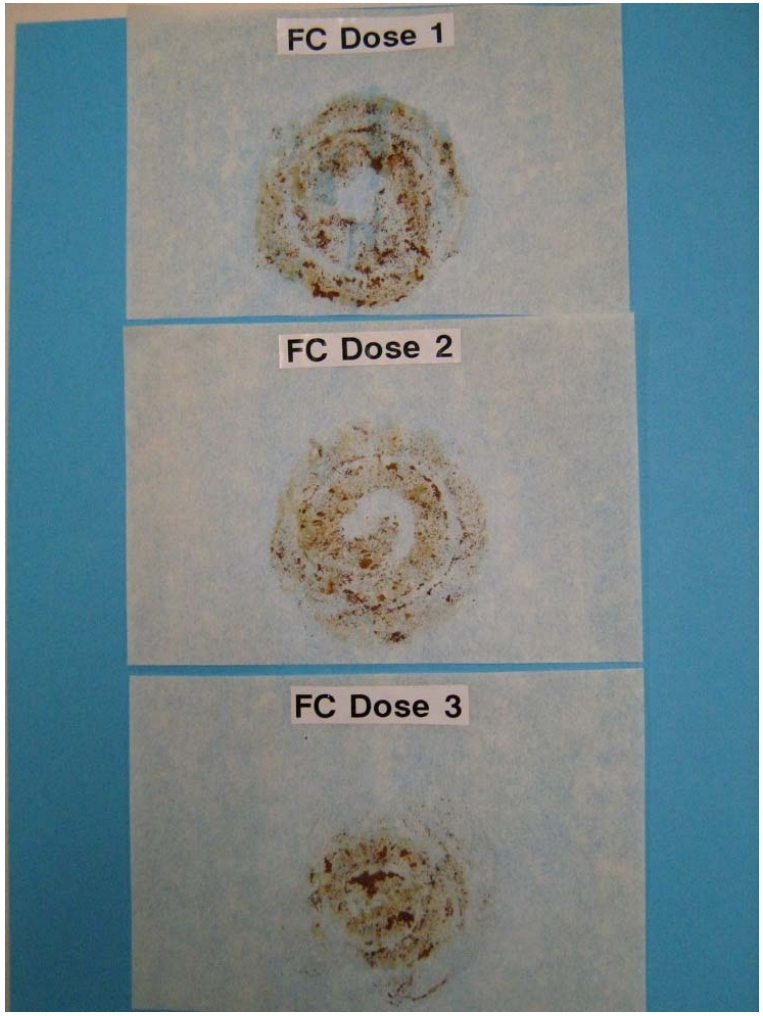
Types of Baking Sheet Substrates

- Quilon Treated Papers
  - Least Expensive
  - Limited to Certain Foods
  - Browns/Chars at High Temperatures
  - Not Multi-use
  - Single Chemical Source

- FC Treated papers
  - Low Cost
  - Good Performance on Certain Foods
  - Full Performance Range to be Determined
  - Potential for Multi-use
  - Readily Available Chemical

FC-Treated Baking Sheet Performance Results

Cinnamon Bun Results



More Robust Performance Tests

- Cinnamon Buns - provide basic Pass / Fail test.
- Next level – more demanding foods with butter, oil and/or sticky ingredients.
- Interest in determining how FC's can be used to meet these requirements.

More Robust Performance Tests

Other Foods:

- Sliced Potatoes / French Fries
- Bread and rolls
- Caramel Cookies
- Macaroons

Non-food Screening test:

Wax Pick Test – generic test to replace foods.

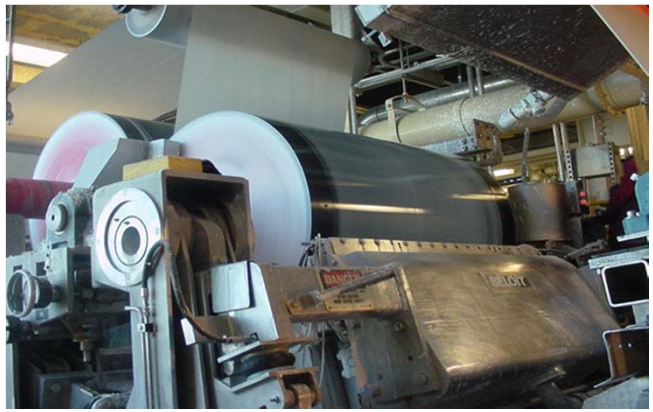
Best Practices – Fluorochemicals (Neat)

Addition Points:

- Suction side of pump going to the size press.
- Top of run tank.
- Do not dose starch cook tank – high temperatures can be detrimental to performance.

Other Recommendations:

- No pre-mixing or recirculation unless advised.
- Proper storage – no freezing.
- Hard water – less than 200 ppm
- Minimize chelant usage – EDTA or DPTA if necessary.



Best Practices – Defoamers

Addition Points:

- Suction side of pump going to the size press .
- Same location with FC line added through a T-connection.
- Top of run tank with adequate agitation.

Other Recommendations:

- Do not overdose.
- Start DF prior to FC addition.
  - ❖ Foam is easier to prevent than to remove.

Best Practices – Defoamer Types

Good foam prevention / control has been observed with:

- Ethoxylated Tall Oil + Hydrophobic Amorphous Silica.
- Glycol Concentrate.
- Fatty Alcohol Alkoxylate.
- Others – consult your chemical supplier.

Best Practices – Pumps for Neat FC

Use low shear type pumps:

- Progressive cavity.
- Air diaphram.
- Peristaltic.

Avoid high shear type pumps:

- Centrifugal.
- Gear.

Best Practices – Miscellaneous

- **Eliminate long drops of size press solution.**
  - Chemical addition.
  - Return lines.
- **Moderate agitation in the run tank.**
  - Avoid air entrainment.
  - Reduce foaming.
- **Minimize filler use at wet-end.**
  - Competes for FC – absorption.
- **Control / Minimize wet-end sizing**
  - AKD – little or no problems.
  - ASA – possible problems at high usage.
  - Rosin – bad interactions with FC.
- **Eliminate or by-pass vibrating screens**
  - Source of foam generation.

Following these recommendations and best practices will allow the papermaker to produce various greaseproof papers and boards in an productive and cost-efficient manner. Consult with us for more specific information.

Thank you for your attention

Questions and Comments.

- Contact information:

Dr. Ishley
Ishley@daikin-america.com
256-260-6354

Dr. Adamsky
Adamsky@daikin-america.com
256-260-6349

Daikin America, Inc.
905 State Docks Road
Decatur, AL 35601