



Taconic PFOA Q&A (Binder Tab 1)  
Revised 08/15/05

**General**

1. Outline of ownership and operation history of the site. *Need from Taconic for insurance.*

**Chemistry and Toxicology**

2. What is PFOA (perfluorooctanoic acid) and APFO (ammonium perfluorooctanoate)?
  - a. PFOA ( $C_8HF_{15}O_2$ ) fluorinated organic acid. In aqueous solutions, PFOA loosely associates on water surface and partition between air/water interface. (*EPA Draft Risk Assessment 1/4/05*)
  - b. PFOA is persistent in the environment. Does not hydrolyze, photolyze or biodegrade. (*www.epa.gov/opptintr.pfoafr.htm*)
  - c. These are used to manufacture PTFE an organic polymer not soluble in water. (*T. Kosto memo dated 7/12/05*). About 0.1% PFOA in the dispersion. 7-12% surfactants in the finished mixed material that is used to coat cloth. (*Site visit 7/27/05*).
  - d. APFO has a short half-life at high temperatures and is baked out of the PTFE at high sintering temperatures. (*T. Kosto memo dated 7/12/05*). PFOA not expected in final products. (*www.epa.gov/opptintr.pfoafr.htm*) *1/2 LIFE  $\approx$  0.2 sec*
  - e. Material balance by EPA for a glass coating process showed 77% APFO destroyed, 19% to air, 3% to wastewater, 1% solids. Taconic water portion probably higher (historical practices, septic, POTW disposal, etc.). (*Tim Kosto site visit 7/27/05*)
3. How are PFOA and APFO related? *uses*

Easily converted back and forth. Taconic used ammonium salt (APFO) as surfactant in the manufacture of PTFE and the aqueous dispersion used in the coating departments. Taconic has over 600 product lines. (*T. Kosto memo dated 7/12/05*).
4. What are the toxicology/epidemiology issues?  
*See Table 1 for a summary*
5. What are typical blood levels and consequences? (*University of PA Study released 8/15/05*)
  - a. General US population: 5 ppb
  - b. Little Hocking Water Association & other nearby residents near plants: 112 ppb – 1,040 ppb in Little Hocking Water Association. Median blood levels in 4 water districts was 369 ppb, 298 ppb, 327 ppb, 316 ppb. Overall residents median was 340 ppb. Highest in children under 6 and adults over 60. Lowest in age 21-30. Other studies found 15.7-128 in non-workers and MN study 2.01-121 ppb.
  - c. Workers: 490 ppb.
  - d. See Table 1 for information on potential health effects – studies on rats and animals cannot necessarily be generalized to people and worker studies are limited. EPA has numerous studies underway with manufacturers and others to better clarify.
6. How is blood tested?

1993 study used thermospray mass spectrophotometry assay for PFOA in endocrine study. (EPA Draft Risk Assessment 1/4/05)

7. Are there action levels or thresholds?

- a. For exposure limits there are not OSHA or ACGIH limits. 3M recommended a limit of 0.1 mg/m<sup>3</sup> for PFOA. ACGIH established 0.01 mg/m<sup>3</sup> for APFOA. (Adirondack Environmental Industrial Hygiene Survey dated June, 2003).
- b. West Virginia DEP using 150 ppb as level of concern.
- c. Minnesota is using 7 ppb as max. concentration in water that causes no harm. (<http://www.littlehockingwater.org/January%202005%20water%20notice.htm>)

8. Has Dupont provided bottled water to Little Hocking Water District?

As part of CO for Washington Works facility DuPont agreed to provide drinking water if PFOA/APFO exceeded 14 ppb.

9. Who supplies materials containing PFOA to Taconic?

AGC, Asahi Glass, DuPont, Daiken

10. How long has the material been used at Taconic? For insurance questions need outline of how stored, used and disposed of with years.

At least 42 years as a coating material in sheets, belts, adhesives. **TAPES, laminates**

11. How is material stored at Taconic?

It comes in 275 gallon totes, 55 gallon or 5 gallon drums. PFOA/APFO is a stabilizer = prob. Makes up a bout 700-1500 ppm in PTFE. Found in PFA, MFA, dispersions and PTFE. Comes in as a non-hazardous material via freight.

12. How is material handled at Taconic?

55 gallon drums are mixed in mixing room to the correct formulation, then used in large pans that coat materials that are rolled through oven process [REDACTED] Wastewater material collected in above and underground holding tanks and disposed of off-site as non-hazardous industrial wastewater.

13. How much material is used per year? **AGC = 425,000 pounds/yr., DUPONT = 360,000 pounds/yr**

14. What are suppliers recommending customers do? **SOLVAY = 188,000 Pounds /yr., Daiken**

- a. DuPont/others committed to reduce concentration in raw material by 12/06. DuPont pilot test at Taconic now. **14,000 Pounds /yr**
- b. DuPont offers assistance with treatment technology if sign confidentiality agreement – Taconic personnel visited WV around 06/05. For water recommends carbon filters (DSRA from Calgon a filter grade activated carbon. Calgon rec. filtersorb 300 for potable water), air scrubber systems.
- c. Periodic emails are sent from DuPont inc. last on 7/06/05. **DUPONT**
- d. DuPont rep came to Taconic about September/October 2004. **Dynion (spelling)** visited Ireland site. AGC came around late June, 2005, Dailon about mid-July, 2005.
- e. Supplier message – don't worry, studying to ensure not a problem. Saying will share the science. Visits are more sales related as to when the new low concentration dispersions will be ready to test.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]

[Redacted list item]



**Potential Environmental Impact - Taconic**

27. What process streams are of potential interest?

- a. Dispersion processing
- b. Groundwater & well water
- c. Air emissions (indoor and outdoor) – some through pollution control equipment and stack (after fume eliminator which uses water spray and filter), other vented directly outdoors. Also fugitive emissions not collected by ventilation system.
- d. Stack media (water and filters)
- e. Wastewater
- f. Septic leach fields (past historical disposal and concrete USTs – 1 out of service and 1 in service. One closed was on SPDES permit and filled and closed around 11/2000)
- g. Sludge/slurry to offsite landfill
- h. Also releases –(note emergency control device had release 6/27 and soil removed and some pure dispersion to asphalt outside).

28. Has stack air been tested?

- a. No, only inside ambient air.
- b. About 5 years ago a stack test was conducted and included ammonia and fluorinated hydrocarbons. Could possibly have shown short chains. *Laury mentioned may want to determine test method and if could have detected short chains which would include PFOA?*

29. How is wastewater generated that could contain PFOA? *See Andy K. Chart dated 7/26/05 on Taconic Wastewater Generation.*

- a. Floor wash
- b. ADD sinks, emergency rinse, and oven wastewater go to ASTs which are pumped for off-site disposal.
- c. Building 5 sink goes to 500 gallon UST which is pumped for off-site disposal.
- d. Chemical mix room sink go to ASTs for off-site disposal.
- e. Building 6 oven room sinks, ovens and floor wash go to <sup>3000</sup> 500 gallon UST for off-site disposal.
- f. Approximately 3,000+ gallons of wastewater are disposed of off-site per week. (previously 5,000 gal. per week but waste minimization over past year included eliminating hoses for washdown and required dry squeegee of trough).

30. What is the concentration in wastewater? *Need copy of the ww samples.*

Potential POTW site in VT wanted APFO sampled. ~~Existing sample~~ *sent ww sample to Exygen* and was around 80-85 ppm 9/20/04. Seemed high and some competitors had issue with that lab so sent to Severn Trent. ST said *TACONIC other samples*

*D&C*

"No charge" since they did not have

~~freedom~~ they had not confidence in their method – some high and some non-detect. So no consistency in their results. ST stopped doing the test. More samples were sent to Exogen. Showed at least 20-25% raw material in wastewater, so started waste min. Did not use VT as POTW site.

31. Was test method valid?

TACONIC

Thus,

32. Where is wastewater disposed of?

- For about 10 years to Hoosick Falls POTW (until POTW had consent order with DEC and eliminated industrial users. Also was a foaming issue)
- Short period to Fort Edward but foaming problem. (July & August 2004)
- Broker (United Industrial Services, a division of United Oil Recovery) sends to WWTP in Stoughton, MA, Meriden, CT, or Bridgeport, CT. Future wastewater may be sent via Precision Industrial to Passaic Valley WWTP, NJ.

33. Is Hoosick River a potential receptor?

Yes. St. Goban in Hoosick Falls is also a potential source to the POTW and River, they are downriver of the POTW. ~~while~~ Taconic is ~~upriver~~ up gradient and adjacent a tributary (Little

34. How is off spec, aged product and slurry handled?

Hoosick that feeds the Hoosick River.

Placed in 55 gallon containers and sent as non-hazardous industrial waste to licensed landfill via Precision Industrial Services.

35. Has groundwater/drinking water been tested?

- Exygen Research Lab tested 7 samples 11/23/04 by LC/MS/MS, results received about 12/21/04:

Sample #	Sample Location	Results – PFOA (ng/ml)
04-10-01A,B	Bldg. 4 Dispersion Area Well (Well #2)	117, 116
04-10-02 A, B	Bldg 2 Drinking Water Well (Well #1)	152, 148
04-10-03 A, B	Bldg 6 Drinking Water (Well #3)	2.30, 2.07
04-10-04	PFOA Control	13700, 14100

- Exygen Research Lab tested 5 samples 1/14/05 by LC/MS/MS and results received 1/24/05: Also see map from A. Kawczak.

Sample #	Sample Location	Results – PFOA (ng/ml)
04-13-01	RPI deionized water	ND
04-13-02	161 Shofelt Rd.	ND
04-13-03	147 Coonbrook Rd. (Lori G occupied house)	4.20; 4.30
04-13-04	6 Russell Road (Sue S occupied house)	2.28, 2.21
04-13-05	Building 1 (upper reservoir)	0.562, 0.516

36. Is sampling method valid?

Yes, as noted below, Exygen method approved by EPA for use during DuPont studies.

37. What are EPA recommended methods?



In the *Phase II Monitoring/Sampling Work Plan for the Dupont Washington Works Site, WV* (8/12/05) DuPont proposes conducting the following tests using the methods listed below. The 4 known sources of PFOA are air emissions from manufacturing, water discharges to the Ohio river, releases from SWMUs and releases from landfills. See OPPT-2003-0012-0985 for sample letter for residents where sampling is being done dated 6/8/05.

a. Air:

- Phase I: air dispersion modeling of air emissions done to predict average annual ambient air concentrations location using 2002 as baseline year followed by modeling for emissions 9.02-8/03 (e.g. highest near process area and declining with distance from stack and beyond Site boundaries). See OPPT-2003-0012-0223-0225 for results.
- Phase I perimeter fence line monitoring and contemporaneous air dispersion modeling at 6 locations along the fence line. (See OPPT-2203-0012- 0219, 0616, 0317-0320, 0648-0658).
- Phase II to compare results from air dispersion modeling to ambient air sampling data using ISCST3 and AERMOD and collections of ambient air concentrations and particle size information. Will consist of 7 sampling events over 6 weeks – p. 10-12 of work plan for sample locations, number of samples and sample methods. Using sorbent tubes analyzed by Exygen Research of State College, PA to determine ambient air concentrations and EPA approved method found in OPPT-2003-0012-0834-0835 (methanol extraction with liquid chromatograph/mass spectrometry. The high volume impactor analytical methodology analyses procedures are currently undergoing validation – will use liquid chromatography/tandem mass spectrometry.
- Phase II will include meteorological monitoring using an on-site and off-site station.
- For Phase II modeling and emission inventory will be taken (see p. 15 of work plan) and through stack monitoring and mass balances, emissions will be calculated

b. Drinking Water Sources

- To identify the source of contamination from air emissions and leaching as well as contamination from releases.
- Additional groundwater monitoring will be conducted within 2 miles of plant based on initial testing, water type and source, air emissions modeling, access and those that coordinated with air testing (and where have owner permission).
- Phase I included water wells, springs and cisterns within 2 miles of the Site and landfill. See reports in OPPT-2003-0012-0039.
- Phase II to resample private wells on a set frequency to determine trends. Also sampling public water supplies.
- In Little Hocking Water Association Well Field installing 5 shallow monitoring wells and 3 deep monitoring wells (see p. 26). Soil to be sampled during installation.
- Method depends on if spring, well, cistern or tap. Analytical method is validated liquid chromatography-tandem mass spectrometry (LC/MS/MS) aqueous method developed by

Exygen – detection method 0.05 ug/L (LOQ) and 0.01 ug/l (LOD). See OPPT-2003-0012-0040.

- Also see OPPT-2003-0012-0993 5/05 sampling results from Exegen. Water results range from 2,360-15,000 ng/L for APFOA and 2,270-14,400 ng/L for PFOA. Also describes shipping and hold time (14 days max.) for samples sent to lab. OPPT-2003-0012-0991 gives 2<sup>nd</sup> qtr 2005 residential sampling results dated 7/19/05.

c. Surface Water (via permitted SPDES discharges)

- Under the SPDES permit requirements. See OPPT-2003-0012-0802-0805, 0041.

d. Soil (surface and subsurface) & Grass

- Soil to be sampled during well installation (see p. 27). Will use validated LC/MS/MS method developed by Severn Trent Laboratories. In addition soil and grass will be sampled within 2 miles of the site to identify the occurrence and distribution of PFOA.
- Looking at components of soil/grass column from 3 on-site locations (see p. 30) based on on-site air modeling and air plume and other surface soil sampling. The sampling and analytical methods are described on p. 32-37 and include grinding to homogenize, dry ice, methanol and solid phase extraction and a LC/MS/MS with selected reaction monitoring and method developed by Morse. For a wash water sample a LC/MS/MS aqueous method developed by STL-Denver will be used.

e. Small Mammals/Fish

- Sampling at the well field, a private location and a background location to determine PFOA in small mammals who could be exposed through dermal contact, inhalation or ingestion. See p. 38-40.
- Sampling in Ohio River to determine if PFOA is assimilated into fish tissues. See p. 41-44.

38. What mitigation methods are other manufacturers using?

- c. Daikin Decatur Plant Reduction Update (OPPT-2003-0012-0983) notes that there are plans in place to install systems to reduce emissions (air, water, etc.) but methods were redacted from the report. Report also includes results for shallow soil monitoring and storm water runoff.
- d. Little Hocking Water Association advises water customers that it is aware of no home filter system that removes C8. (<http://www.littlehockingwater.org/BEWARE.htm>)

**Potential Industrial Hygiene Impact**

39. What are the potential pathways for exposure?

- a. Inhalation
- b. Ingestion
- c. Dermal exposure

40. What are the MSDS recommendations? *Get copies of various MSDS*

41. Are MSDS recommendations followed?

42. What PPE is used by personnel?

- a. 5/8/03 and 5/15/03 training to employees mandated (i) wearing clean company supplied uniforms daily (uniforms were previously provided but not always worn), (ii) leaving worn uniforms at Taconic (previously worn home for spouse to wash), (iii) use of 18" poly sleeves in dispersion, (iv) continued use of nitrile gloves, (v) prohibition on food in oven room or mixing room (refrigerators, coffee pots, coffee beans, microwaves, pizza boxes, glasses and cups removed), (vi) washing hands with soap more frequently, (vii) mixing room personnel to wear chemical resistant apron, (viii) keeping outside of drums clean preventing particles from falling off and getting airborne or crushed. (Email A. Kawczak dated 7/22/05).
- b. Requirements reenforced during employee updates on 8//05. Note: facility indicated that compliance has not been 100%.
- c. Respirator program recently created (08/05) for mixing room personnel.

43. Was indoor air tested? Was the method valid?

An Industrial Hygiene Survey was conducted by Adirondack Environmental including personal and area exposure monitoring for oven coating and dispersion mixing operations 6/3/03 and results received 7/17/03. No PFOA was detected. No specific approved test methods were identified, so Adirondack used an internally derived method. Since then, EPA had developed approved methods for the DuPont studies.

44. Has drinking water been tested?

Yes see above under groundwater sampling

45. How many residents could be impacted? See A. Kawczak map. Verify if others

- a. Surrounding property are 6 company owned houses (4 occupied), 1 barn, 1 former campground (owned by Taconic) and 4 non-company owned houses.
- b. Testing completed of 2 company owned houses to north of facility, reservoir and 3 site wells. Additional testing & potential for off-site impact needed.

46. Is bottled water offered to employees?

In past bottled water was used in some areas intermittently due to taste or odor (test results met state standards). After well water sampling results received about 12/21/04 and bottled water offered in buildings.

47. Is bottled water offered to off-site residents?

In 8/05 the 2 company owned houses that were tested were offered bottled water. One already using since about 01/05 and one started using.

48. Should blood testing be offered?

tbl

49. Where would blood sampling be conducted?

Exposure

50. Would suppliers pay for blood work and testing?

unlikely - multiple vendors

### Environmental and Industrial Hygiene Evaluation

51. What are the Environmental and Industrial Hygiene Evaluation recommendations? (Adirondack/Clough Harbor)

The 8/9/05 PFOA/APFO Response by Adirondack Environmental and Clough Harbor had the following recommendations. Also see estimated costs dated 8/5/05.

- a. Stronger enforcement of current "clean uniform policy".
- b. Stronger enforcement of current "good hygiene policy".
- c. Stronger enforcement of current "No Eating or Drinking Policy".
- d. Stronger enforcement of PPE.
- e. Awareness training to all staff. Additional training and annual refresher for employees with higher chance of exposure.
- f. Maintenance personnel training and protection.
- g. Re-design exhaust ventilation system in dispersion mixing area to drum filling style slot exhaust system.
- h. Review current PPE used.
- i. Evaluate potential sources of PFOA/APFO exposure and establish baseline levels.
- j. Identify validated method for collecting and analyzing air and bulk samples.
- k. Monitor developments from Dupont and EPA and modify controls as needed.
- l. Install localized fresh and conditioned air terminals at key oven room work stations.
- m. Notification of NYSDOH re: groundwater contamination. Set up meeting.
- n. Notify employees re: detection in water.
- o. Use of bottled water.
- p. Install carbon treatment systems on the 3 well systems. (See proposed design dated 8/2/05 from Clough Harbor).
- q. Seek alternate water supplies.
- r. Notify POTWs and waste haulers.
- s. Tests and/or remove two USTs used for wastewater collection.
- t. Evaluate WWTF used to see if can treat PFOA.
- u. Review coating process to determine where and how waste material is disposed off, including empty containers.
- v. Review historical waste practices (on and off site).
- w. Install on-site WWTF.
- x. Sample water used in Building 5 fume eliminator to verify decomposition at elevated temperatures.
- y. Review existing air emission points for emission sources.
- z. Reroute non-treated air emission sources to fume eliminator or install treatment.
- aa. Notify DEC Regional Water Engineer.
- bb. Sample 4 shallow groundwater monitoring wells.

- cc. Obtain information on 3 production wells to understand site specific geology.
- dd. Collect water sample from wetland/swamp area south of Bldg. 6.
- ee. Sample water from reservoir.
- ff. Long term recommendations based on results and DEC input.
- gg. Offer to sample residences in immediate area of off-site residences and provide bottled water if PFOA/APFO detected.
- hh. Evaluate the installation of water treatment systems for residents with bottled water.

**Product Concerns**

52. Have products been tested?

Letters indicate that no PFOA has been found in Taconic products based on testing by an outside laboratory. Note that testing was by gas chromatography-mass spectrometry which will only find PFOA at ppm levels, not ppb. (T. Kosto memo dated 7/12/05). Taconic has over 600 product lines – about 2-3 sampled. (Site meeting 7/21/05) Get copies of results.

**Reporting**

53. What are reporting obligations? (See memo dated 7/25/05)

- a. Under 6 NYCRR 750-2.6 notification to the Regional Water Engineer as soon as have reason to believe unauthorized discharge not under SPDES permit. Also notification within 24 hours where discharge of pollutants not listed in SPDES permit.
- b. POTW notification could be required based on specific POTW requirements. Wastewater was sent to Hoosick Falls for about 10 years (until they were under DEC consent order and eliminating industrial customers) and Fort Edward for a short period but ended due to foaming. Currently broker United Industrial Services handles and takes about 3100+ gallons/week to out-of-state POTWs (Stoughton, MA; Bridgeport, CT or Meriden, CT). Another location in New Jersey is being considered for disposal by Precision Industrial Maintenance.
- c. NYSDOH if any deleterious changes in raw water quality. Studies to determine cause, treatment, eater sampling or investigation is required and a follow-up report due in 30 days.

54. Were notifications made? *Verify date sent and get copy of the letters*

- a. 8/1/05 NYSDEC Region 4 Water Engineer Frederick Sievers sent letter and groundwater results.
- b. 8/1/05 NYSDOH John Dunn (Troy) and Richard Elder Rensselaer Co. DOH sent letter and groundwater results.
- c. POTWs/broker have not been notified.

55. Is PFOA/APFO listed in the SPDES permit?

- d. Not currently. *Check what closed UST was listed as containing – closed around 2000.*

56. Was it referred to in the application? **NO**

57. In past stack test was PFOA included? **NO**

*Did fluoride test method detect short chain chemicals such as this?*

### **Communication**

58. What information has been provided to employees?

- a. On 5/8/03 and 5/15/03 A. Kawczak presented info. to oven room/coating personnel on all shifts and wet engineering technicians that might be in contact with wet dispersion operations. A 21 page viewgraph presentation was given. 20 pages used Dupont web site information. Only last page was specific to Taconic. *(See file for copy of presentation). (Email from Andy Kawczak dated 7/22/05).*
- b. Employees were updated on PFOA on 8/7/05. In addition a reminder was posted for the oven room, mixing room and tech personnel re: PPE and requirements.

59. Have customers been notified and if yes, what information has been supplied to them?

- a. Verbal and written as requested by large food processing customers to provide to customers. Draft letters dated 08/06/05 were prepared and need to be finalized. File has letters to (i) Taylor Company (dated 7/7/05), (ii) Indirect Product and Services Supply Chain Management (dated 2/11/05), (iii) Lulu's Classic Cuisine (dated 8/12/04) *(T. Kosto memo dated 7/12/05). (verify what has been sent out)*
- b. Letters indicate that no PFOA has been found in Taconic products based on testing by an outside laboratory. Note that testing was by gas chromatography-mass spectrometry which will only find PFOA at ppm levels, not ppb. *(T. Kosto memo dated 7/12/05).*
- c. Draft prepared 8/22/05 for Wendy's

60. What response should there be to the media?

- a. EPA is studying PFOA and will issue a report in the near term and Taconic is being proactive for EPA and taking the following steps.....

Date

Address

Dear :

I received your inquiry regarding perfluorooctanoic acid (PFOA). PFOA and its related ammonium salt (APFO) are used as surfactants in the manufacture of fluoropolymer products. These materials have been in the news recently as the Environmental Protection Agency (EPA) is studying these materials to determine sources of the material that have resulted in low levels in the general population, as well as any potential risks to humans.

PFOA and APFO are found in small amounts in the resins used by Taconic in the material coating process. These materials are largely removed during the final steps of producing products due to the high temperatures used in our process. In 2003 Taconic tested its products using gas chromatography-mass spectrometry and PFOA was not detected.

The Environmental Protection Agency (EPA) has indicated that

“At present, there are no steps that EPA recommends that consumers take to reduce exposures to PFOA because the sources of PFOA in the environment and the pathways by which people are exposed are not known. Given the scientific uncertainties, EPA has not yet made a determination as to whether PFOA poses an unreasonable risk to the public. At the present time, EPA does not believe there is any reason for consumers to stop using any consumer or industrial related products that contain PFOA”.

At Taconic we are following the developments closely for further EPA developments and guidance. If you'd like to learn more, information can be found regarding PFOA at numerous places including the following websites:

[www.epa.gov/opptintr/pfoa/pfoainfo.htm](http://www.epa.gov/opptintr/pfoa/pfoainfo.htm)

[www.c8inform.com](http://www.c8inform.com)

[www.pfoa-facts.com/index.html](http://www.pfoa-facts.com/index.html)

Your business is important to us, please feel free to call me with any questions that you might have at (518) 658-3202 ext. 296.

Yours truly,

Timothy J. Kosto II  
Technical Manager

Date

Address

Dear :

I received your inquiry regarding perfluorooctanoic acid (PFOA). PFOA and its related ammonium salt - ammonium perfluorooctanoate (APFO) are used in small quantities as surfactants in the manufacture of fluoropolymer dispersions that Taconic receives. As you may be aware, these chemicals have been in the news recently since the Environmental Protection Agency (EPA) is studying these chemicals to determine sources of these chemicals since low levels have been detected in the general population and to better understand potential risks to humans.

PFOA and APFO are found in small amounts in the uncured resins used by Taconic in the material coating process. These chemicals are largely destroyed during the final steps of producing products due to the high temperatures used in our manufacturing processes. In 2003 Taconic tested its finished products using gas chromatography-mass spectrometry and PFOA was not detected.

The Environmental Protection Agency (EPA) has stated that: "At present, there are no steps that EPA recommends that consumers take to reduce exposures to PFOA because the sources of PFOA in the environment and the pathways by which people are exposed are not known. Given the scientific uncertainties, EPA has not yet made a determination as to whether PFOA poses an unreasonable risk to the public. At the present time, EPA does not believe there is any reason for consumers to stop using any consumer or industrial related products that contain PFOA".

At Taconic we are following the developments closely for further EPA developments and guidance. Additional information can be found regarding PFOA at numerous places including the following websites:

[www.epa.gov/opptintr/pfoa/pfoainfo.htm](http://www.epa.gov/opptintr/pfoa/pfoainfo.htm)

[www.c8inform.com](http://www.c8inform.com)

[www.pfoa-facts.com/index.html](http://www.pfoa-facts.com/index.html)

Please feel free to call me with any questions that you might have at (518) 658-3202 ext. 288.

Sincerely,

Andrew Kawczak  
Environmental Manager



# PRIVILEGE

**PRIVILEGED AND CONFIDENTIAL**

**PRIVILEGE**

# PRIVILEGE

**PRIVILEGED AND CONFIDENTIAL**

**PRIVILEGE**

# PRIVILEGE

# PRIVILEGE

**PRIVILEGED AND CONFIDENTIAL**

**PRIVILEGE**

# PRIVILEGE



PRIVILEGED AND CONFIDENTIAL

**PRIVILEGE**

# PRIVILEGE

**PRIVILEGED AND CONFIDENTIAL**

**PRIVILEGE**

# PRIVILEGE

**PRIVILEGED AND CONFIDENTIAL**

**PRIVILEGE**