

Fluoropolymers Division History

Early Fluoropolymer Industry History

Polytrafluoroethylene, PTFE, was born in a DuPont laboratory in April of 1938. The inventor was **Roy Plunkett**. During World War II, PTFE was used in the Manhattan project, created by the government to develop the Atomic Bomb. It was used at Oakridge, TN as a gasket and packing material in their gaseous diffusion piping system handling uranium hexafluoride,



Roy Plunkett

a very toxic and corrosive gas. Only Teflon® could do the job; other uses for the resin were in naval and air borne radar systems as a coax cable dielectric and nose cones for a very effective weapon in World War II – the Proximity Fuse.

During the war, a cloud of secrecy descended over all Teflon® activities. During this period, DuPont developed a number of processing techniques, borrowing techniques from the powdered metal, ceramic, and plywood industries. In 1946, DuPont decided to phase out of processing and entice other companies to get into it. The earliest PTFE processors were established in the late 1940's. The early pioneers were innovative engineers who invented many of the processes to make polytetrafluoroethylene, PTFE, into commercial products. Since PTFE was not a thermoplastic and quite intractable, developing processes to make it into usable products was a challenging task. Many of the founders of these early companies originally worked for Dupont, or some of the very early processors, such as US Gasket.



The early pioneers were true entrepreneurs whose businesses grew until they reached retirement age, and the businesses were turned over to their sons or were sold to larger companies and conglomerates. By the mid-1950's, there were a substantial number of fluoropolymer processors and there was substantially interest in forming a trade association.

References

This history is partly based on a History of the Fluoropolymer Division through 1984 by **Bert Ely**, primarily a summary of activities at the bi-annual conferences. It was enhanced and brought up to date through 2005 using old minutes supplied by **Frank Chapman** and by information from FluoroNews since the early 1990's . It was coordinated and edited by **E. Robert Hill**, the editor of FluoroNews, FluoroGuide, the FPD Monthly Highlights, etc. for the last 12 years.

Updates, Enhancements, and Corrections are Welcome

This is the first comprehensive Fluoropolymer Division History written and unfortunately many of the older SPI resources were discarded as the SPI moved from NYC to DC and then made several office moves in DC. If you have any enhancements or corrections, **please send them to the SPI's Fluoropolymers Division at fluoro@socplas.org.**



SPI's Fantastic Plastic Works at Epcot in Disney World in 2004

History of the SPI's Fluoropolymer Division

There was a meeting of about ten fluoropolymer processors in New York City in the Summer of 1956 and Mr. **A. J. McMullen** was appointed Acting Chairman and was instructed to approach the Society of the Plastics Industry, Inc. to see if this was an appropriate organization. On October 9, 1956, Mr. McMullen met with **Nick Cruse** of the SPI and requested that we become a division. The Board of Directors of the SPI met on January 24th, 1957 and approved of our new division. Thus, 1957 is the year of our formation and 2007 will be our 50th anniversary.

April 9, 1957 – Organization Meeting in St. Louis, MO. **Rick McMullen**, Chairman. Ten fabricating companies were present and two raw material suppliers were present as observers. Technical, Membership, and By-Laws committees were set up.

October 3, 1957 – First Fall Meeting. Sea Island. GA. **Rick McMullen**, Chairman. Eight technical committees were established to work on individual specifications. Thirty-seven companies had joined. By-Laws were approved but the date for members to be accepted was delayed from October 9th to October 30th.

April 23, 1958 – Spring Meeting at Eden Roc, FL. **Rick McMullen**, Chairman. The Molded Sheet committee had met in November, and the Raw Material Committee met in December. The Policy, Membership, Program, Publicity, and Technical Committees gave their reports. There were 10 Technical Subcommittees working on specifications.

October 30, 1958 – Fall Meeting, Absecon, NJ. **Rick McMullen**, Chairman. A technical subcommittee was started on Spray Coating. Trade Practice Rules were presented to the membership. The West Coast Division was started.

April 1959 – Spring Meeting –Location not recorded, but probably the Fountainbleau. **Ed Peierls** of Resistoflex was elected chairman. Trade Practice Rules were approved. Two specifications were

adopted by the Department of Commerce. Work started on a Fluoroplastics Seal and Hallmark. (We were then the Fluoroplastics Division)

October 2, 1959 – Fall Meeting at the Seaview C.C., Absecon, NJ. **Ed Peierls**, Chairman. The Federal Trade Commission will review our trade practices. The Public Relations Committee issued a booklet “Fluorocarbon Facts.” An assessment of our division was started. Forty members were present.

April 20, 1960 – Spring Meeting at Roosevelt Hotel, New Orleans, LA. **Ed Peierls** Chairman. specifications have been completed. The second edition of “Fluorocarbon Facts” was distributed by the Public Relations Committee. Six new members were brought in. The FTC will have a public hearing on the Fluorocarbon Trade Practice Rules next January. There was a round robin to obtain data for a specification on glass filled PTFE. Monthly statistics are proving useful and will be continued. A program was started to give awards to college students on papers on fluorocarbons.

October 23, 1960 – The Homestead, VA. **Ed Peierls**, Chairman. Seven specifications have been adopted by the Department of Commerce. Melt and Pipe Lining Subcommittees were initiated. Plans were made for a Marketing and Sales Clinic. There was a revision on the “Fluorocarbon Facts.” Forty-five company representatives were present.

April 12, 1961 – The Broadmoor in Colorado Springs, Co. **Vic Reiling**, Chairman. Vic was from MIP. V.P. was **H. H. Herr** of Raybestos Manhattan. There were several interesting papers from students on properties of fluoropolymers. It was too cold to go swimming, but the mountains were beautiful.

October 5, 1961 – The Drake Hotel in Chicago, IL. **Vic Reiling**, Chairman. There were 40 representatives. Revisions were started on the specifications on Sheet, Tape, and Basic Shapes of PTFE. The Hallmark was approved and all fabricating companies agreed to use it on their packaging and letterheads.

April 14, 1962 – Hollywood by the Sea, FL. **Vic Reiling**, Chairman. A program was started for the various members to volunteer to be speakers at universities to teach fluoropolymers course. It was reported that our previous chairman, **Ed Peierls** had passed away. **Vic Reiling** noted at this meeting there was much dissention so asked for SPI help.

October 16, 1962 – Westchester Country Club, Rye, NY. **Vic Reiling** Chairman. The Society had recommended the formation of an Executive Committee and it was adopted. The first report was presented of gross and operating data of the fabricating companies. It was agreed that this was most useful and would be continued and compared with ratios of the plastics industry. The members agreed to cooperate in a marketing program and look for mass markets to help suppliers and fabricators increase business of PTFE. Thirty-one companies responded to the above statistics.

January 1963 – There was a meeting of 10 presidents of fabricating companies in Chicago under the auspices of the SPI. They met to discuss the industry problems and intended to meet regularly.

April 3, 1963 – Hollywood Beach, FL. **Robert Miller** of Dixon, Chairman. It was reported that 19 fabricators and 6 supplier companies were present, but this seems highly understated. The Market Development Committee set up several task forces for various large markets. The financial report was simplified. **Jim Yost** of Alleghany was elected Vice Chairman. The Western Division gave a report on their work on specifying "0" rings.

October 10, 1963 – The Westchester Country Club, NY. **Bob Miller**, Chairman. There was a speaker from Great Britain on their fluorocarbon industry. Roy Plunkett talked about the invention of "Teflon." It was agreed to have a technical conference and displays in the Spring of 1964. The Public Relations Committee completed the "Engineering Manual on Fluorocarbons." The Policy Committee is meeting now regularly. The Market Development Committee is working on the expansion of markets in the fields of automotive, appliance, aerospace, electronics, textile machinery, chemical, and industrial. Statistics were proceeding satisfactorily.

April 29, 1964 – The Cavalier Hotel, Virginia Beach, VA. **Bob Miller**, Chairman. Final preparations were made for the first Design Engineering Conference on fluorocarbons. It rained and poured every day and some of the rooms were as small as closets.

June 10, 1964 – The conference was very successful. It was held at the Ambassador Hotel. There were 250 guests, four papers were presented, and there were 22 table top displays.

October 15, 1964 – The Concord Hotel, Lake Kiamesha, NY. **Bob Hiller**, Chairman. Final plans were made for the design show in Detroit in June. There were problems reported in getting the participants to provide their statistics. The Western Section again became active. **Jack Burley** of Penntube Plastics was elected Vice Chairman.

SPI Moves from New York to Washington DC

Details of the activities of the next 15 years until 1980 are not available from the office of the SPI because of the move from New York to Washington DC. However, we do have the following report of the location of the Spring and Fall Meetings and the Chairman for each Conference:

October 1965 – **Jim Yost**, Chairman at Melvin Village, NH

April 1966 – **Jim Yost**, Chairman at Puerto Rico

October, 1966 – **Jim Yost**, Chairman at Atlantic City, NJ

April 1967 – **Jack Burley** of Penntube Plastics at Bel Harbor, FL

September 1967 – **Jack Burley** at Washington, D.C.

April 1968– **Jack Burley**, Chairman at Bel harbor, FL

October 1968 – **Jack Burley**, Chairman at the Drake Hotel, Chicago, IL.

March 1969 – **Chuck Starky** of Sparta Mfg. Co at Palm Springs, CA

October 1969 – **Chuck Starky**, Chairman at Houston, TX

Spring 1970 – **Chuck Starky**, Chairman in FL.
(Location not given)

Fall 1970 – **Chuck Starky**, Chairman -meeting in FL.
(Location not given)

Spring 1971 – **Gene Steffle** of Raybestos-Mnahattan in the Bahamas

Fall 1971 – **George Townsend** of Garlock, Chairman, replacing Gene (Location not given)

Spring 1972 – **George Townsend**, Chairman at Key Biscayne, FL

Fall 1972 – **George Townsend**, Chairman at Key Biscayne, FL

Spring 1973 – **Bob Miller**, Chairman from Dixon, Key Largo, FL

Fall 1973 – **Bob Miller**, Chairman at King of Prussia, PA

Spring 1974 – **Miles Powell**, Chairman from Chemplast, San Diego, CA Fall,

Fall 1974 – **Miles Powell**, Chairman (Location not given)

Spring 1975 – **Saul Ricklin**, Chairman from Dixon, Key Biscayne, FL Fall,

Fall 1975 – **Saul Ricklin**, Chairman, Chicago, IL

May 1976 – **Saul Ricklin**, Chairman at the Sothampton, Bermuda

November 1976 – **Saul Ricklin**, Chairman at the Shearton, Newport, RI

April 1977 – **Bill Huber** from MIP, Chairman at Scottsdale, AZ

Fall 1977 – **Bill Huber**, Chairman (Location not given)

Spring, 1978 – **Bill Huber**, Chairman, Tarpen Spring, FL

Fall 1978 – **Bill Huber**, Chairman, Atlanta, GA

Spring 1979 – **Frank Chapman**, Chair from Chapman Industries, Frenchman's Reef, St. Thomas

Fall 1979 – **Frank Chapman**, Chairman

March 1980 – Marriott's Camelback Inn in Scottsdale, AZ. **Dave Newman** of Garlock, Chairman. Work was completed on FD-118 on electrical testing of PTFE coatings.

October, 1980 – The Hyatt in Hilton Head Island, SC. **David Newman**, Chairman. Statistics on granular PTFE are going OK and the report was distributed to all members. There was a report about the pyrolysis toxicity tests for plastics developed by the University of Pittsburgh. It gave erroneous results and made the fluoropolymers look very bad. It was reported that the first attempt of rule making was started on control of CFCs by the SPI.

March 15, 1981 – New Orleans, LA. **Dave Newman**, Chairman. Speakers talked about problems with OSHA inspectors. Work progressed on specifications on Heavy Walled Tubing of PTFE. Reports were given about fluoropolymers applications and consumption in Europe and the Far East. A study was reported on fire toxic fumes showing that fluoropolymers were the safest materials, but the tests used by NBS prove the opposite.

Dave Newman Was an Early Chairman and is Still a Consultant and Member.

October 14, 1981 – Colonial Williamsburg. VA.

Dave Newman, Chairman. The emphasis of the speakers was on coated glass fabric for structures. Statistics on granular PTFE continues satisfactorily. Work continued on getting a satisfactory test for fire safety. We were sort of pushed out of Williamsburg as they were getting ready for **President Reagan and Mitterand**.

March 15, 1982 – Rancho Mirage, CA. **Dave Newman**, Chairman. A granular statistics report was mailed out to all members. Work continued on several specifications including Heavy-Walled Tubing and Coating of PTFE. Fabricators reported that they were unhappy with the lack of information on granular PTFE in the ASTM spec. Toxicity tests were more realistic for the fluoropolymers were going to the Department of Commerce.

October 13, 1982 – Adams Mark Hotel in Houston. TX. **Dave Newman**, Chairman. Work was started on a specification for repro PTFE. Major modifications were made by SPI on their specifications for granular and fine powder PTFE and these were sent to ASTM. The specification on filled PTFE was about complete. We had an excellent tour of the NASA Space Center. Processors reported on how computers helped in their business.

March 20, 1982 – The Breakers. Palm Springs, FL. **Myron Baily** of Chemplast, Chairman. The speakers gave talks on personnel discussing women in the work force, sexual harassment, hiring and firing. On the second day the talks were on the world wide automotive business for fluoropolymers. The changes in our raw material spec. FD-115 were put into ASTM D-1457. The specification on filled PTFE FD-116 was sent out to the membership. There was no statistical report on the volume of granular PTFE.

October 17, 1983 – Newport, RI. **Myron Baily**, Chairman. Work continues on a specification for repro PTFE. There were getting to be quite a few state regulations that would prevent the use of fluoropolymers for insulation on wire and cables. The Regulatory Affairs Committee is actively working to prevent these from taking effect. Speakers talked about energy costs for our industry.

April 8, 1984 – Sonesta Beach Southampton, Bermuda. **Myron Bailey**, Chairman. We had a glass bottom boat ride over a shipwreck. Speakers talked on

the fluoropolymer markets worldwide and on the semi-conductor industry. Suppliers became voting members. Restrictive legislation by states continues on the use of fluoropolymers for wire and cable in spite of work on Regulatory Affairs Committee.

September 24, 1984 – Wild Dunes, Isle of Palms, SC. Myron Bailey, Chairman. By-Laws were rewritten and approved. A questionnaire reported that the members wanted technical subjects at the meetings. The SPI office was moving to Washington, D.C. There was a trip into downtown Charlestown that was short and uneventful. The repro PTFE specification was completed and ready for the membership for vote. There was still no statistical report.

Spring 1985 – Marriott Kanopolee, Maui. The Japan Fluoropolymer Society was invited to this meeting and the head of Daikin gave a key note speech. **Myron Bailey** from Chemplast was chairman. This was probably his last meeting. We had a great time including whale watching.

March 1986 Conference at Grenelefe, FL. Dupont re-introduced **Roy Plunkett** to the FPD and gave out 50th anniversary champagne glasses for the discovery of Teflon. **John Ostroot** remembers playing golf with **Roy, Wilt Hawkins and Jerry Carroll**. “I was riding with Roy and after nine holes, Wilt asked me if he could ride with Roy for the second nine which I readily agreed to.”

September 1986 Conference at Longboat Key Club, Longboat Key, FL. FPD Chairman, **J. A. Cooper**, Mather Seal. **Ed Walsh**, DeWal, Chair of Technical Committee reported that 5 FD procedures were reviewed by 30 members in attendance and were ready for balloting. **Bert Ely** reported on ASTM activities affecting the industry.

March 1987 – 46 attendees at the Hyatt Regency in Scottsdale, AZ. Conference chairs were **Chuck Singleton**, Dupont and **J. Worley**, Zeus Industrial Products. FPD Chair was **Jerry Cooper**, Mather Seal. **Ed Walsh** reported that Fluoropolymers recommended specs for PTFE sheet, skived tape, molded shapes, extruded rod, and machining tolerance were approved unanimously and presented to ASTM D20.19 for consideration. **Ed Walsh**, DeWal, reported on the Resin Supplier Statistical Program status, and

David Jones, Dupont, reported on the status of the Regulatory Affairs Committee efforts.

September 1987 Conference at the Broadmoor, Colorado Springs, CO. Conference Chairs, **Vic Nunan**, LNP and **Al Stevens**, Dixon.

April 1989 Conference at the Hyatt Regency Waikoloa, Big Island, HI. April 1989 - Waikoloa Hawaii **John Ostroot** recalls that this conference was initially scheduled for Princeville, Kauai, but moved at the last moment to Waikoloa, because the hotel at Princeville was under renovation which did not get completed in time. The Waikoloa had recently opened and **Jerry Carroll** was able to fit us in because they were not fully booked yet.

April 1990 Conference at the Silverado Resort and Country Club, Napa, CA. **Ed Walsh**, Policy Board Chairman. There were 140 attendees, representing 17 processors and 13 material suppliers. There has been a significant increase in meeting attendance over the past few years. Issues in the late 1980's were a proper balance of addressing business/industry issues and fun and friendship at the conferences. The business concerns included 1) a need for statistical analysis on fluoropolymer markets, industry regulatory issues, monitoring of technical issues and initiatives, development of a safety and handling brochure for fluoropolymer products, and development of a directory of fluoropolymer suppliers, processors and end-users to provide industry awareness and resource availability.

October 1990 Conference at Hilton Head, SC. **Jerry Carroll**, Staff Director of the Fluoropolymers Division for the past five years, retired on Oct. 1, 1990. The US House and Senate reached an agreement on August 3, 1990 that would mandate a phaseout by the year 2000 of chlorofluorocarbons (CFC's). At this time, SPI was located at 1275 K. Street in DC. At this time, the FPD newsletter was 4 pages.

FPD's First International Symposium

March 1991 Conference at Doral Country Club, Miami, FL. This was FPD's first International symposium. A special feature of this 4 day symposium was an exhibit of products from international SPI members and processors.

April 1992 Conference at Carmel Valley Ranch, Carmel, CA.

Fall 1992 Conference – A task force chaired by Luigi Puglia developed and issued an outstanding Guide to the Safe Handling of Fluoropolymer Resins. Over 10,000 copies of this 46 page guide have been purchased and distributed to fluoropolymer users.

W&C and Coaters Sections Formed

Spring 1993 Conference – **Dave Willis**, Executive Committee Chairman. Reflecting the growth of the fluoropolymer industry, the Fluoropolymers Division is forming a Wire and Cable Section and a Coaters Section.

Division Newsletter Revived as “FluoroNews”

The Fluoropolymers Division Newsletter was revived in Summer 1993 as “**FluoroNews**,” with **E. Robert (Bob) Hill** as the Editor. The first issue was six pages. FluoroNews was to be published in the winter and summer quarters and include industry statistics. Bob was also commissioned to develop a Fluoropolymers Buying Guide by 1994, which was called **FluoroGuide**.

October 1993 Conference at Kiawah Island, SC. **Dave Willis** was Ex Committee Chair. Early arrivals enjoyed golf and tennis tournaments on Sunday. Business included meetings of newly formed wire & cable committees and coaters committee. These committees have been successful and the Ex Committee wants to expand the concept to other groups.

March 1994 Conference at the Fairmont Hotel, New Orleans, LA. **Al Damico**, **Conference Chair**. At this time, we had very active tennis competition as well as golf.

Prompted by a discussion of the Clean Air Act by the Coaters Group, a task force was formed to assess whether an exemption from the proposed Clean Air Act limits on volatile organic chemicals (VOC's) could be obtained for the coaters through SPI. **Bruce Nesbitt**, Orion Industries, was the Coaters Chairman. The Winter 1994 issue of FluoroNews, eight pages, included statistics on merchant PTFE sales, a center spread on the 1993 Fall Conference, and an interview with John Waller

on Fluoropolymer Coated Products. A second issue of the Safe Handling Guide was published, and over 8500 copies distributed to industry members and PTFE users worldwide. In May 1994, Daikin America officially opened a fluoropolymer plant in Decatur, AL.

September 1994 Conference at Windsor, Canada. **John Vaccaro**, Conference Chair. Early arrivals enjoyed the golf and tennis tournaments on Sunday. The Summer 1994 issue of FluoroNews was 8 pages and featured a 2 page spread on Dr. Roy J. Plunkett, the inventor of PTFE and a bar chart of historical US Merchant PTFE sales for granular, dispersion, and fine powder resins and total PTFE. The second issue of the “Guide to the Safe Handling of Fluoropolymer Resins” was nearing publication.

March 1995 – The **Second International Fluoropolymers Symposium** was held at Disney World's Swan Hotel in Orlando, featuring 2 ½ days of business program, golf and tennis tournaments, and table top exhibits. **Ken Tober and Bob Chase**, conference co-chairmen. **Dave Willis** was Ex Committee Chairman. The “Promote Responsible Packing Guide” was approved and was published in mid-1995. Due to strong demand, a second run of the late Summer 2004 issue of FluoroGuide was just produced. A 2nd Edition of the Safe Handling Guide has also been approved and will be published in mid-1995.

In early 1995, SPI substantially changed the dues structure to increase processor membership. Minimum dues for company membership were reduced from \$500 to \$250 and processor dues will be based on value added.

October 1995 Conference was held at the Harbor View Resort, Martha's Vineyard, MA, including a full day of technical presentations and meetings with the Codes and Stds. Committee and the Coating Section. A hearty thanks to conference co-chairs, **Jim McCormick and Al Stevens**. Earlier this year, the SPI board revised its dues and membership category structure to encourage

processor membership, reducing the dues for the average new processor member by 35%.

March 1996 Conference was held at Loews Coronado Bay Resort in San Diego. Conference chairs were **Ken Tober and Bob Chase**. **John Vaccaro**, Allstate Plastics, was elected Executive Committee Chairman, replacing **Dave Willis**, Whitford Corp. **John Ostroot**, EGC, is our new Vice-Chair. The Coaters Section had 20 attendees and is trying to raise the funding to address the VOC issue.

SPI is now issuing CapitalFax biweekly summarizing federal/state legislative and regulatory developments affecting the US Plastics Industry. This is being supplemented by Fax-on-Demand on the same subjects. The new Packing Guide for the handling of containers of PTFE after resin use and the second edition of the "Guide to the Safe Handling of Fluoropolymer Resins" have been published. FluoroNews started accepting classified ads for members only for excess equipment available/needed or jobs available/needed in the Winter 2006 issue in a new section called **FluoroMart**. FPD had a big membership drive in 1996. A two day **OSHA Compliance Seminar**, sponsored by FPD, on OSHA regulations as they apply to the fluoropolymer industry was held in late summer 2006 by Keller and Heckman attorneys. SPI launched a web site in roughly late 1995 under www.socplas.com.

October 1996 Conference at Ritz Carlton, Atlanta. Conference Chair was **Larry Galpin**, Daikin. The key presentation was a Forum on the National Toxicology Program (NPT) draft report on TFE Monomer toxicology. **SPI moved to 1801 K Street in DC in late December, 2006.**

In the June 1996 meeting, the FPD Ex Committee agreed to push forward with an FPD web site. We are continuing to issue a 10 page issue of FluoroNews, our Fluoropolymers Division newsletter, in August and February of each year. We had 4 member ads in the FluoroMart section of FluoroNews in the Winter 1997 issue.

April 1997 Conference at the Wigwam Resort, Goodyear, AZ. **Kauko Aunio and George Milner**, conference co-chairmen. We continued to have both tennis and golf tournaments plus a "Wigwam Western

Adventure" at Sunset Point featuring fast draws, roping mechanical calves, dancing, and paintball shooting. This was a photo fiesta for **Bob Hill**, who became our conference photographer/editor/writer for this and most future conferences. Bob also has been handling FluoroNews, our Division Newsletter, since 1993 and FluoroGuide, our Guide to FPD Members Products and Services, since its inception in 1994.

The conference included presentations on regulatory/environmental issues, "employment issues" and product promotion. The coatings section agreed to actively pursue a coatings web site.

November 1997 Conference at the Southhampton Princess in beautiful, breathtaking, Bermuda. **Mike Cardona and Jay Witte**, conference co-chairs. The attendance was the best in recent history with 169 total attendees. The issues management committee gave an update on the listing of TFE Monomer under CA proposition 65. Keller and Heckman discussed "Crisis Communications." FPD has now established new websites for the Fluoropolymers Division and for its Custom Coaters Section.



Horseshoe Bay, Bermuda

Also, in early 1998, the Winter 1998 issue of FluoroGuide was issued and loaded on the FPD site. Members were encouraged to establish company web sites and hot link to the FPD site. SPI appointed **Tina Kierzek** as Asst. Mgr. for the Fluoropolymers Div. and four other Divisions reporting to Allen Weidman, Director.



Ocean Reef Resort

April 1998 Conference at Ocean Reef Resort in Key Largo. **Bill Wright**, conference chairman. The highlights included our first PTFE Processor Workshop and four presentations on exporting to Latin America. We will all remember **Larry Beam's** impersonation of Elvis.

FluoroGuide is Posted on FPD Web Sites and Hot Linked to Member Sites

At the Ex Committee's request, the recent issue of FluoroGuide is now posted on the web site, and we plan to hot link FluoroGuide to member company web sites and to post FluoroNews on the our web site. California's Prop 65 continues to be a hot issue. The third edition of the Guide to "Safe Handling of Fluoropolymer Resins" is now available. We had six members ads in the recent issue of FluoroNews. The SPI site at socplas.org is also an increasingly popular source of information about the US plastics industry.

The Coaters Section has a number of projects in progress including an EPA VOC project, a Coaters Customs and Practices pamphlet, and an expanding Coaters web site.



Custom Coaters Section Meeting in Bermuda

FPD Sets Aside a Full Afternoon for Section Breakouts at Conferences

September 1998 Conference at Omni Inner Harbor Hotel in Baltimore. The CA Prop 65 continued to be of concern. The conference included presentations on non-disclosure agreements and employee retention. Seven new members were recently added to the coating section. We have been setting aside a full afternoon for Section Breakouts in recent conferences. The coaters had 25 attendees at their section breakout in Baltimore.

March 1999 Conference at the Alexis Park Resort in Las Vegas. Esther Di'Clemente passed away on June 10, 1999. She and Hugo have been SPI members for many years and have many good friends in FPD. The Conference included a very interesting summary on the future of PC software, and the Section breakouts were well attended.

October 1999 Conference at the Ritz Carlton in Arlington, VA. This included presentations by EPA, OSHA, the US Chamber of Commerce, plus a talk on "How to make Washington work for you" by the SPI. The musical satire of Washington antics, "The Capital Steps," was a riot. We started posting monthly highlights of FPD and Section Activities on the FPD web site in early 1999.

Don Duncan Named SPI President

May 2000 Conference in Maui, Hawaii. **Al Damico**, Conference Chair. The Third International Fluoropolymers Symposium was held at the beautiful Ritz Carlton, Kapalua. The golf at the Village and Plantation Courses was awesome. Presentations included "Materials in the Semiconductor Industry," "What's next in Fluoropolymer Coatings?" and an Issues Management Update on the PFOA issue. On Feb. 2, 2000, **Don Duncan was named President of SPI, and John Ostroot was elected Chairman of the FPD Executive Committee.** The Ex Committee voted to form a Lined Products Section and also a Fabric Coaters Section. FPD has waived the FPD assessment for all individual professional and retired members to encourage this valued group to take an active role in our Division.

Fall 2000 Conference at Marco Island Hilton, in the Venice of SW Florida. The highlight was a talk on the Russian PTFE business by KCKK. We had a few people from Lined Products and Coated Fabrics but decided to postpone kicking off these sections until the upcoming Tucson meeting in Spring 2001. We are currently surveying our membership on what they value from the Fluoropolymers Division. Two wonderful friends of ours, **Ed Walsh and Hugo DiClemente**, co-founders of DeWal Industries, passed on. Both were in their early 70's. Their sons continue to be very active in SPI and FPD.

March 2001 Conference at Loew Ventana Canyon Resort in Tucson. The big hits were Nate Booth's "The Diamond Touch" and Michael Coates presentation "Fluoropolymers in China." We also shared the results of the membership survey, which were summarized on page 10 of the Summer 2001 FluoroNews. We had the organizational meeting of the new Lined Products Section at this conference. We did not have enough attendees to organize a Coated Fabrics section. **Bob Chase** is now chairman of the coaters section, replacing **Bruce Nesbitt**, who resigned. Also **Bob Bailey** was appointed Technical Director, replacing **Jay Witte**.

Lined Products Section Formed

FPD Starts Posting FPD Monthly Highlights on Web

Fall 2001 Conference at the Ritz Carlton, Amelia Island, FL. **Kauko Aunio and Richard Baillie**, conference co-chairs. APFO continued to be a hot issue. Among the subjects discussed were polymer fume fever, plasma treatment methods, product liability, and six sigma. Cvent, a meeting registration, management, and database system was implemented in the summer of 2001. **Rick Merluzzi** of Edlon accepted the leadership of the newly formed Lined Products Section. The coated fabrics producers decided to join the Coaters Section rather than start their own section. The FPD web site was substantially upgraded in May and June and hot links provided to all member companies with web

sites. Also, we have started to post FPD highlights monthly on the web site. The Standing Program committee had its first meeting in late November 2001 with a focus on making our conferences more valuable to our membership.



Lined Product Section Meeting

Spring 2002 Conference at La Costa Resort in Carlsbad, CA. Key topics were Plasma Treatment methods II, Preemployment Testing by K&H, and Fluoropolymer Markets and Trends by SRI. A History of DeWal by **Bob Hill** was posted on the web site in July 2002.

Fall 2002 Conference at Austin, TX at Barton Creek Resort in the heart of the Texas Hill Country – Chairs, **Jim Redmond and Bill Wright**. Key presentations covered SPI/FPD issues, Simplified Strategic Planning, seal technology for the oil and gas industry, Quality by Joseph DeFeo of the Juran Institute, the radiation processing of fluoropolymers, and US/Mexican trade issues. The FPD web site had 60k hits in the Spring 2002 quarter, double the year ago rates. FluoroGuide was fully updated in June 2002 and we have recently added tributes to **Frank Chapman and Whitey Bro** on our web site –all by our writer/editor, **Bob Hill**.

Spring 2003 Conference at the Ritz Carlton at Half Moon Bay, CA. **Mike Haley and Tim Walsh**, conference chairs. This conference had 15 presentations, including 1-2 presentations at each of the Coater, Lined Products, and Processors Section Breakouts. Key presentations covered workplace productivity, upstream materials for fluoropolymers, fluoropolymer opportunities in the semiconductor market, productivity in the workplace, and much more. At the close of the

conference, **John Vaccaro** and others presented a special tribute to who was stepping down after several years as Chairman of the FPD Ex Committee. **Richard Baillie**, W. L. Gore, was elected EC chairman.

Web site hits reached 133k quarterly. An article on Whitford Corporation with sidebars on the custom coaters industry and on **Dave Willis** was posted on the web site.

The Chairmans Corner by **John Ostroot** in the Winter 2003 FluoroNews included a very good summary of what is being done to increase member value, largely based on the recent members survey. This included steps to improve the conference management and content, getting strong energetic leaders for the 4 sections, and having the sections drive the activities and programming the Division. The FluoroGuide and Section Tables were fully updated in December 2002 and included a new Lined Product Table and Section in the Members Directory.

Fall 2003 Conference at the Ritz Carlton, Philadelphia. **Steve Schwartz and Luigi Puglia**, conference chairs, with **Dave Willis and George Milner** assisting as needed. Mike Cardona, **Don Duncan** - SPI President, and **Bonnie Limbach** - SPI discussed the PFOA issue. Other key topics were fluoropolymer emission abatement, doing business globally, preserving trade secrets, and materials of construction in the 21th century. The special evening at the Franklin Institute with its interactive exhibits was a big hit. The processors breakout overflowed the meeting room to hear an update by **Chuck Bloser**, AGF, on PTFE Markets and Trends.

A full update of FluoroGuide was posted in November 2003. The W&Cable site, datacable.org, received 60K hits in the Fall 2003 quarter, while total FPD web site hits reached 165k hits quarterly, about double the year ago rates.

The Custom Coaters VOC issue was resolved favorably in September 2003. See Winter 2005 issue of FluoroNews for a summary.

Fluoropolymers Processors Group Formed

Spring 2004 Conference at the Venetian Resort in Las Vegas. **Steve Smith and Eric Walsh**, conference chairs. The six key presentations in the General Sessions included **Mary Ellen Weber**, EPA Director, discussing the PFOA Issue. Our plaudits and thanks also to the Section Chairmen who gave us very strong programs in the Section Breakouts. For several years now, we have been shifting the emphasis in our conferences toward greater content and participation in our section breakouts. FPD has formed the Fluoropolymers Processors Group (FPG) to ensure that the processors voices are heard by both the Fluoropolymers Manufacturers Group and the EPA on the PFOA issue. A new Resin Manufacturers Group, chaired by Al Damico, was formed to promote fluoropolymers.

We are starting to update the **Fluoropolymers Safe Handling Guide** –over 10,000 copies of this valuable guide are in circulation. FluoroGuide and the Section tables were fully updated and posted on the web site in June 2004. A Fluoropolymers High Performance Wire and Cable History, edited by Bob Hill, from the late 1940's thru 2004 was posted on the web site earlier this year. Our web site was up to 215k hits in the Spring 2004 quarter.



Processors Section Meeting

Fall 2004 Conference at Disney's Boardwalk Hotel in Orlando. **Matt Kajfez and Evan Laganis**, conference chairs. This conference had an exceptionally strong business program with six key presentations. Our thanks also to the Section Chairmen, **Jim Redmond, Steve Schwartz, Rick Merluzzi, and Bob Bailey**, who gave us strong programs in the Section meetings. The tour of Fantastic Plastic Works, dinner, and fireworks at Epcot were spectacular.



Wire and Cable Section Meeting

SPI Moves to 1667 K St. NW in DC

In late November 2004, SPI moved its offices down the street to 1667 K St, Suite 1000 in DC. Histories on the Custom Coaters and the Fluoropolymer Processors were completed in December 2004. These will be included in a members only section of our web site, which will hopefully be on stream in summer of 2005. The hits on our web site increased again to 257k hits in the Fall 2004 quarter, reaching a rate of one million hits annually.

Spring 2005 Conference at Ritz Carlton at Laguna-Niguel, CA. **Al Damico**, conference chair. The theme was "Competing/Operating in a Global Marketplace/Economy." Among about 8 presentations in the General Sessions were presentations on the Japanese Fluoropolymers Industry by Mr. Takizawa. Dick Rockosi of Arkema is now chairman of the W&C Section, replacing Bob Bailey who remains Technical Director for FPD. FluoroGuide was fully updated in February 2005. Web site hits increased further to 296k hits in the winter 2005 quarter. The EC also approved Bob Hill's proposal that we offer 5 free classified ads, first come first serve, to FPD members in each issue of FluoroNews.

This is intended to both increase member value and drive the perception of FPD as a dynamic, active representative of the interests of the Fluoropolymers Industry.

And the Best is Yet to Be!

The Fluoropolymers Division Today

The Fluoropolymers Division (FPD) of SPI was formed in 1956 to promote the growth and advance the interests of the Fluoropolymers Industry. Its goal is to assist members in a collective effort to promote the benefits and use of Fluoropolymers, to provide a common voice to address important industry issues, and to ensure a healthy and vibrant industry. Its members – suppliers/distributors, fabricators, equipment suppliers, and consultants – include the industry leaders and major international companies. FPD's key objectives are to:

- Promote the use of fluoropolymers in new applications and markets worldwide.
- Address worldwide technical, legislative, regulatory and business issues related to fluoropolymers.
- Provide a forum for the exchange of information among member companies, academics, the scientific community, and end-users.
- Act as a central fluoropolymer information resource.
- Gain a better understanding of the global marketplace opportunities for fluoropolymers.

[Why Use Fluoropolymers?](#)

The unrivalled combination of properties of fluoropolymers makes them the product of choice when metals and less expensive plastics fail or where long term reliability is required. Fluoropolymers are often used to solve existing problems or to develop new technology. Fluoropolymers provide solutions for critical applications when nothing else works, and

frequently have been used to substantially reduce overall system cost.

Although fluoropolymers represent a relatively small portion of the global plastics industry, they have a critical impact on our society. They make airplanes fly more safely, enhance computer performance, help clean air and water, and protect our firefighters. They make our workplaces safer, medical procedures safer, our military more efficient, and our cars pollute less.

Why join SPI/FPD? What are my benefits?

- **SPI/FPD can protect your company and the industry against inappropriate legislation and regulation.** PFOA is a current key issue. This is a critical issue for the entire industry, and SPI and FPD continue to work with the EPA to devise a solution which both protects the public and has minimal negative effects on our industry. The EPA accepted the SPI/FPD recommendations on MACT, setting a special category for fluoropolymer coatings. Some other efforts with special importance to the industry are product liability reform, OSHA reform, ergonomic legislation, etc.

- **SPI/FPD can help make your business more profitable through FPD Information Products.** These include, Fluoropolymer Safe Handling Guides, Air Permit Workbook, Guide for Proper Disposition of PTFE packaging, OSHA compliance courses, representation on Codes and Standards Committees, FPD and Fluoropolymer Industry Histories. By joining FPD, you may be able to reduce staff training costs, avoid hiring outside consultants, and keep a safer and healthier workplace.

- **SPI/FPD keeps you informed** and provides a forum on state and federal legislative and regulatory matters and industry trends and issues. The key issues include addressing codes, standards, and specifications; addressing environmental, safety, and processing regulations; developing new markets and applications; improving quality; and installing quality management and certification processes such as ISO 9000. FPD is also active in many code bodies in support of the Fluoropolymers Industry.

- **Four active FPD Sections tailored to your particular industry needs.** Each has a web site.

Custom Coaters Section has developed a Coating Glossary, "Standards and Practices of Custom

Coaters," and a Extreme Performance Fluoropolymer Coatings (EPFC) State Briefing Book. A "Certified Coater" program is under development.

1. EPA MACT Ruling – EPA's final rule on the Miscellaneous Metal Parts and Products (MMP) Maximum Achievable Control Technology Emissions Standard (MACT) incorporated the association's input. SPI convinced the EPA not to subject EPFP Fluoropolymer coatings to the more stringent HAP emission limits proposed for more ubiquitous general use coatings.

2. A coaters MACT CD for states has been completed.

3. PFOA and VOC remain the key issues for the coaters section.

Lined Products Section seeks to grow market by promoting fluoropolymers against metals and other competitive materials and new markets. The "Managing Corrosion with Fluoropolymers" CD is almost done and a Guide Book based on the CD material is in process. A lined products web site is now on line.

PTFE Processors Section provides a forum for the exchange of information among member companies and addresses worldwide technical, legislative, regulatory and business issues related the processing of fluoropolymers. A key issue is threats of globalization to U.S. businesses and strategies to address this threat. An outline on how to be listed as a Certified Processor will soon be available at SPI headquarters. A processors web site is now on line and will be enhanced in the near future.

Wire & Cable Section promotes the use of fluoropolymers in wire and cable venues and is active in all standards and code committees. Current focus: material specifications, relevant environmental issues, material safe handling, and code-making bodies and trade groups. Many publications including: Fire Performance of Data Communications Cables, Toxicity – Part of a Complete Fire Hazard Assessment, Safety and Health Hazards Associated with Foaming Fluoropolymers Using Thermal Degradation Processes, Development and Fire Testing of Plenum Cables - Background, History, and Current Issues (UL 910)

- **Bi-annual conferences** to discuss mutual interests and meet peers, suppliers, customers, and industry consultants. Both meetings focus on critical business issues and include professional speakers, including end-users and the scientific community, who provide insights on business and personal improvement and industry updates on new materials, processes and developments.



General Business Meeting - Fall 04 Conference

- **SPI FluoroNews**, our newsletter, provides an industry update in the summer and winter quarters. It is both printed and posted on the main FPD Web site, www.fluoropolymers.org.
- **SPI FluoroGuide** is a comprehensive FPD Buyers Guide, which is posted on our FPD main web site.
- **FPD Web Sites** provide industry updates and news, on-line resources, and current FPD and industry activities. FPD web sites are currently receiving about 1.2 million hits annually. The FPD sites are:

- The division's main web: www.fluoropolymers.org
- Custom Coaters Section: www.customcoatings.org
- Lined Products Section: www.linedproducts.org
- PTFE Processors Section: www.ptfe.org
- Wire & Cable Section: www.datacable.org

Who can join?

To join the Fluoropolymers Division, a company must be an SPI member, be an active fluoropolymer processor, equipment or materials supplier to companies that process fluoropolymers, or a consultant, and meet the requirements of the division. To find out more, call the FPD Executive Director, Allen Weidman, at 202/974-5233, Fax: 202/293-0005, or e-mail fluoro@socplas.org. Interested companies are invited to attend a division conference to meet the members and learn more about this important industry trade association.

Founded in 1937, The Society of the Plastics Industry, Inc. (SPI) represents 1,300 members covering the entire plastics industry supply chain, including processors, machinery and equipment manufacturers and raw materials suppliers. The U.S. plastics industry employs 1.5 million workers and provides \$320 billion in annual shipments. For more information, visit SPI on the Web at www.plasticsindustry.org.