

Cottage Grove Chemical Monthly Report for November, 1998

EHS&R – November

Safety Summary

1 Lost Time in November **3 Lost Time** Y-T-November. **LT IR = 1.41**

1 Lost Time on November 30th. This was a serious injury when a hot dilute solution of caustic sprayed into an employee's face in Building 15. The employee missed four days and came back to work unrestricted.

1 Recordable Injury in November. Same case as above.

15 Recordable Cases Y-T-November. IR = 7.04

0 First Aid Cases in November **29 First Aid Cases** Y-T-November

Hazardous Waste Inspections began in November. We are concentrating on three areas: labeling, closure, and storage. Inspections are unannounced with corrective action requests to appropriate plant departments.

Building 41 Evacuation Drill was held unannounced on 11/4 to ensure our proper response to an emergency. The drill went well. After the reorganizational moves, areas will be set up in the building for accountability.

Building PHAs have been done. This will satisfy the requirement in the Legal Assessment. The Plant PHA will begin the week of January 11.

Risk Management Planning (RMP) draft plan will be submitted by 12/31/98. Changes will be made to these plans prior to submission in June.

PSM and Environmental Audit work is proceeding to clean the slate of all open action items. All items are scheduled to be completed and closed by the end of the year, with exception of the Priority 2 PHAs and one Mechanical Integrity issue.

CUSTOMER SERVICE – November

Total lots produced for November were 487. Total pounds shipped were 2,528,586.

	<u>November</u>	<u>Goal</u>
On-Time Delivery	86%	95%
Avg. Days Late	12	
Number of Late Orders	36	
Lead Time (Avg.)	4.8	5 weeks
Lead Time (Range)	2-12	4-6 weeks

FLUOROCHEMICAL HIGHLIGHTS - November

Cells: CS-03 - we were down the month of November. Cell pack shorts in October brought the 6 cell system down early. CS-04 ran the entire month of November on C8 acid. The cell efficiency for November was 92%. The 10 cell system will be shut down and empty by December 23.

C8/C1 Products: C8 demand continues strong. November C8 acid output was 22,000 lbs. (note this is in 100% solids, and includes FC1094 shipment). We also have 22M lbs C8 Acid (100% solids) on the ocean from Belgium due in the U.S. by the end of December. C1 demand remains high. We will be making HQ115 this month to bring the entire C1 product line into a comfortable supply situation.

FC-95/98: FC-95 and FC-98 were being dried in a ribbon blender. Due to leaks and possible worker exposure, drying in the ribbon blender has been discontinued. We are currently drying in a fluidized bed dryer in the PDC. The PDC drying capacity is limited, and we are hand-to-mouth on supply. Plans are in place to transfer these two products back into the factory in the Building 25 fluidized bed dryer, which is being freed up upon exiting of the silver soap business.

In addition to the drying issues, we are having black particulate issues for the Japanese application (FC-95 only). The supply to Japan is questionable at this time. We are in communication with Maruoka-san, and we are working with Lohmiller's group.

POLYMERS HIGHLIGHTS - November

BC-55 in Bldg. 25 suffered an agitator seal failure in early December. The circumstances surrounding the seal failure may also have further damaged the gear box. An AFE was recently approved to replace the gear box but efforts are now underway to expedite its delivery due to increased uncertainty regarding the gear box condition. This reactor system fully supports the Nextel fiber business (ceramic sols) and Imation's Travan business (binder resin). We are estimating replacement in late January.

FINE CHEMICALS HIGHLIGHTS – November

New Small Volume Manufacturing (SVM) Reactor was put into service following completion of the prestart-up safety review. Two lots of a special catalyst system for Dyneon were successfully completed due to the efforts of Lisa Blanchet, Doug Hipple, Phil Kangas, Pat Close, Fang Zhou, and John Sweet. This reactor will be vital to improving customer service for many small volume fine chemicals including those for the DryView Chemicals now sold to Kodak.

Imation-Weatherford MatchPrint III Chemicals: A service improvement plan was put together and communicated to Imation-Weatherford for all of six of the Fine Chemical products sold to Imation-Weatherford to support the MatchPrint III product line. Two of the materials are produced in the PDC. The plan calls for focusing of all MatchPrint III chemicals under one

planner for improved communication and forecasting, the planner will be Simmon Schaefer. Due to the complexity of these multi-step processes added contingency timing will be added into the process to avoid shipment delays caused by process equipment bottlenecks. The precursor for tethered meta-MOST-OL will be scaled from the PDC into the factory to alleviate this process bottleneck. Action plans will be fully implemented by March 1, 1999.

Brightness Enhancing Film III (BEF III) was given full commercialization approval by Optical Systems Division. BEF III Film is a micro-replicated product using a special brominated monomer produced in Cottage Grove. BEF III has significant cost reduction and quality improvement capabilities over the current brightness enhancing film formulation. The BEF III Film will be sold into the lap top computer market beginning in early 1999. The forecast demand for BEF III resin mixture is about 2,500 lbs/month.

Sensitizer Dyes for Spectratech: The Imation-Middleway, W. Va. plant is in the process of being sold to Spectratech and a request has been made to determine if 3M would be willing to be the source of supply for the three key components into the Viking print Plate product line. Leif Owens is preparing process cost estimates and working with Jim Weisbecker to determine appropriate selling prices.

COTTAGE GROVE STAFFING – November

Jim Neuharth, manufacturing engineer, accepted a position St. Paul effective 11/2/98.

Headcount effective 11/30/98: Salary = 66.7 Hourly = 139

Cottage Grove Chemical Monthly Report for June, 1999

EHS&R – June

Note: Incidence rates include Specialty Additives this year. PDC Safety Issues are being reported under the PDC Monthly Report issued by Tom Woida.

0 Lost Time cases in June. 3 Lost Times cases Y-T-June. LT IR = 2.23 (estimated)

0 Recordable Injuries in June. 6 Recordable Cases (Includes Lost Time Cases) Y-T-June.
IR = 4.46 (estimated)

One case from May was lined-out after agreement by the Site Disability Management Team. The case was misdiagnosed. No work-relationship could be established for the condition.

3 First Aid Cases in June. Building 101-1st degree burn on forearm from melter.
Building 111 – dust in eye.
Building 4-steam pipe burn on wrist.

7 First Aid Cases Y-T-June.

3 Spills/Releases in June. Building 7-spill of 70 lbs. of RD 2701 from defective drum.
Building 4-spill of 4 gals of xylene from open vent valve.
Building 74-5900 lbs. calcium carbonate overfilling silo.

12 Spills/Releases Y-T-June.

Industrial Hygiene: Conducted FTIR monitoring for HCl during the photo cross-linker runs in Building 6. We are currently monitoring for scrubber effluent and hope to expand this to a survey of the general area during the run. Reviewed new vacuum oven set-up and new filter cart prototype with aid of ergonomics team. Participated in final review meeting on filter carts. This is the prototype for standardized filter cart AFE already approved.

Hazardous Waste: The Subpart BB requirements for hazardous waste equipment monitoring, inspections, and record keeping were in place and started on Monday, June 7, 1999. SOP being written to document system used for compliance. The EPCRA TRI (SARA 313) emission data was completed and submitted to Tom Baltutis. The emissions from a total of 49 different chemicals were reported.

Risk Management Planning (RMP): Submitted RMP plan to 3M and EPA on 6/17/99. We have two programs; hydrogen fluoride (Level 3) and formaldehyde (Level 1)

General Safety

Process Safety Management: The project to close PHA action items has progressed to a new stage with the establishment of action item teams by department areas: Performance Chemicals, Fine Chemicals, warehouse and tank farms, and plant. These teams are meeting periodically to review progress and determine which ones should have RFEES written. The teams will be asked to report progress at the monthly management PSM/RMP meeting.

The Specialty Additives buildings and the Butler building, Building No. 062 are now being included in the monthly Safety & Housekeeping Inspection overall score for the Chemical Plant.

The overall plant score is also now being used as one of the plant's performance measurements and used as a factor in determining recognition for our employees.

Safety AFEs

With the Safety Showers/Eyewashes Upgrade AFEs now given final approval, meetings are being held at Cottage Grove to implement these projects. Division Engineering is making plans to send out the bid package for Buildings 3, 4, 5, 6, 7, and 24. This is Phase I of the Safety Shower upgrade project. Safety showers for the rest of the Chemical plant (Phase II) are in the design phase. Liasons in each operating area have been identified to determine the best locations for the safety showers by consulting with production operators. The majority of shower and eyewash units were installed 20, 30, or 40 years ago, and some of the hazardous work locations have changed during that time, thus the need for re-evaluation of locations. The safety showers for both Phase I and II will be combination units so that an injured person can wash their eyes at the same time the shower unit is washing other parts of their body.

CUSTOMER SERVICE – June

Total lots produced for June were 491. Total pounds shipped were 2,576,389.

	<u>June</u>	<u>Goal</u>
On-Time Delivery	79%	95%
Avg. Days Late	15	
Number of Late Orders	73	
Lead Time (Avg.)	7.1	5 weeks
Lead Time (Range)	3-13	4-6 weeks

Reasons for late orders in June:	Capacity	17%
	Labor Shortage	40%
	Maintenance	18%
	Carrier	10%

PERFORMANCE CHEMICALS HIGHLIGHTS - June

Throughput

C8 Products: Total production for June amounted to 30,800 lbs. We are still awaiting word on DuPont's qualification of FC-118 produced from Decatur inert extracted cell crude. The initial samples of FC-2000 (non-spray dried C8) are expected to ship to DuPont in early July.

Medical Adhesives: We are currently facing a critical supply situation with R-21362, Tegaderm and R-21601, Durapore for Brookings. We continue to be in back order for both products, due to both an increase in demand and recent quality issues with Tegaderm. To alleviate the supply issues, additional capacity options are being evaluated.

Constraint Management: Two constraint management teams were kicked off in June. The teams' goal is to maximize effectiveness of highly constrained burden centers. The two targeted units are Building 25's BC-55 (Ceramics) and Building 15's BC-36 (C8 ammoniation reactor). The teams will monitor progress by measuring CEE (Constraint Equipment Effectiveness), which is a multiple of uptime, quality success and performance.

Product and Process Understanding

The Ceramics designed experiments continue to produce extremely promising results. Menomonie has seen a significant improvement in quality (fuzz reduction) with lots produced with a high Boria content and high reaction rate. Eric Jackson is maintaining a current status of the results on the Nextel Sol QICR database.

Industrial hygiene and operational issues surrounding current use of the Fluidized Bed Dryer for FC-95 have required us to investigate alternate drying methods. Spray drying experiments are scheduled for completion in 3-6 weeks. Cleaning procedures are being developed to prevent cross-contamination between FC-95/98 and the C1 products currently processed in the spray dryer. Kathleen Hein is also working on FC-95/98 process mass balances, which will be used to address wastewater emissions issues.

Low Tg PMMA polymer for STRATUS was scaled up successfully this month. This polymer will be used in an alternating layer film with PET polyester to make an infrared mirror for use as a heat shield for automobile windows.

FINE CHEMICALS HIGHLIGHTS – June

Direct Sales:

Kodak-- For the past 2 months we have been able to ship more WDR-3 than planned. June totaled 340 lbs. but July will hit an all time high record of 526 lbs. when the final lot ships next week. July will represent just over \$1MM in sales for the month. Yields and quality (purity) continue to remain quite high.

Spectratech-- Our first shipment of QSPD, 352 lbs., was made on July 16th. Third quarter demand for all 3 products is around \$160,000. Factory scale-ups for QSPD and KSPD are scheduled for mid-August in Bldg. 7. PDC experiments on R-Diazo will take place the week of August 16th. The PDC results will determine if we can also scale-up R-Diazo to a 300-gallon reactor system in Bldg. 6. Scale-up of these processes will greatly reduce our labor content.

Imation - Nicole Krenner completed and sent a data package to transfer the production of Nitrocellulose/Estane to Cordova. This material is used in the production of TRAVAN data storage tapes in Camarillo, CA and has steadily outgrown our capacity in BC-55 (ceramics reactor). The Cordova plant will need to complete a PHA on this process prior to taking over SOS. We have agreed to provide engineering support for both the PHA and process startup.

Internal Transfers:

Phenolics production through June of this year is up about 13.5% over last year. Average monthly production for the first 6 months has been 394,000 lbs./mo. vs. 347,000 lbs./mo. last year.

A new, low VOC primer for Aerospace Materials, EC3983, is scheduled for scale-up the week of August 16th. Since it is used in the aerospace industry, the customer, BF Goodrich, needs to audit the production process. This audit will take place on the scale-up lot scheduled in August.

Fang Zhou and Gary Paulu in conjunction with Aerospace Div. are putting together the necessary documentation for the audit and scale-up.

The ergonomics team, in conjunction with maintenance and engineering, have developed a plant standard for portable pallet scales. By standardizing the design the team anticipates reduced safety incidents, reduced maintenance costs and increase availability and reliability. Don Ilau, Mike Hagen, Pat Close, Gerri Mirkin and Lisa Blanchet have put the first 5 of these new scales into production. A renewal plan was also developed to phase in additional scales over the next few years.

The vacuum oven project in Bldg. 6 led by Andy Gross and Nicole Krenner is expected to startup in August. This oven has an operating range of 10 - 760 mmHg and 55 - 280F. Ideal for temperature sensitive materials, it will be used for a wide variety of fine chemical products such as Photocrosslinkers--TMD, FC Melt Additive--OH&ES, Diazo/QSPD/KSPD--Spectratech, COM/AMOX--Abrasives, and many others.

Commercialized Business:

A recent surge in FC-226 demand out of 3M Taiwan has put us in a backorder situation. Starting in April, the backorder level had grown to approximately 30,000 lbs. The current backorder is at 10,000 lbs. and will be completely eliminated by mid-August. Chuck Marsh has been working with Mike Thompson to keep on top of this situation. Based upon past years, this surge appears to be seasonal.

SPECIALTY ADDITIVES HIGHLIGHTS – June

Staffing: No changes in June, Current levels are 37 hourly and 11 salaried. Dennis Christensen accepted a new position in Bldg. #17, his effective start date is 7/5/99. The following moves are a result of a minor reorganization: Larry Krenner will assume a crew supervisor role along with some material control duties. Teresa Spieker will continue with her current materials control assignment in addition to picking up some of Dennis's responsibilities. She will now have global planning for all of Specialty Additives. A new production supervisor (replacing Larry Krenner) will be added ASAP.

Business Condition: Demand for our products are still strong. We are continuing to run the equipment as many hours as possible. Finished Goods shipped in June: 565,845 # (YTD: 4,152,260 #). This represents 21% growth over same period 1998. International shipments for Semi finished goods were up 13% over LYTD. Trend is to continue at roughly a 12% growth in Europe. Automotive market, oil and gas and Nelson Brothers (explosives) continue to exceed forecast.

Furnaces: The electric furnace heatup began on 6/9 as scheduled. The burners lit off and we saw no problems during the initial refractory curing of one week. We ran into numerous batching system and dryer problems; we didn't see glass flow until approximately 12:00 noon on Thursday 6/24 (3 days late). On Friday 6/25 at approximately 10:00 A.M. the cooling fan in zone two of the new dryer went down due to a fan problem caused by the vendor. We received the new fan on Wednesday 6/30 and installed it immediately. Since 6/30 and through July, the furnace is running as expected, 2600 lbs./hr. – 300 lbs./hr. more than history. Pounds of glass produced for June: #55 electric furnace: 145,332 # with an average rate of 1002 #/hr ; #2 gas furnace: 480,820# with an average rate of 685 #/hr.

Mill: No issues in June. Global demand steady. Tilloy France is expecting a couple new large contracts that will require the mill to run most weekends. Plans are to watch orders closely and react with crewing arrangements as necessary to assure product delivery. Total pounds of feed produced: 1,575,830 # with an average rate of 2900#/hr.

Formers: We replaced baghouse bags and installed an automatic feed system for former #21 over Memorial weekend and into the first week of June. Installation went well for the bag replacement and OK for the feeder. By the time all bugs were worked out, startup was delayed by two days. The former ran well for the rest of June. Former #20 (as expected) continued to see bag problems. We replaced the bags for this former on June 29th and 30th. Startup of this former went well and on schedule. Total pounds of bubbles produced for the month was 511,560 lbs.

Floated Products: Total pounds produced for the month was 19,085 #. The new auger is on schedule to arrive mid summer. Plans are to install immediately following arrival. Next upgrade phase will include the two Dynamic Air powder pushers and automatic metering of flow agent.

COTTAGE GROVE STAFFING – June

Headcount effective 6/31/99:	Chemical	Salary = 69	Hourly = 130
	Specialty Additives	Salary = 11	Hourly = 37
	Total	Salary = 80	Hourly = 167

Tom Barrett, Crew Supervisor for Building 15, accepted a position in St. Paul effective 6/30/99.