Monsanto

FROM (NAME & LOCATION) St. Louis - General Offices

DATE: September 23, 1966

SUBJECT: Trip Report
August 29 - September 1
New York District

REFERENCE: New York District

TO : G. R. Buchanan/R. Davis

cc: AGE/DER
H. A. Gilbert - WILMINGTON
G. R. Graham - NEW YORK
C. R. Groninger - NEW YORK
A. R. Hempel - CHICAGO
D. L. Hosmer - CHICAGO
R. Moran - NEW YORK
D. Olson - NEW YORK
P. L. Slayton - NEW YORK
R. P. Sullivan - WILMINGTON

Objectives

1. To aid G. R. Graham by making exploratory and follow up calls selected from his 1966 sales plan providing relief from heavy workload.

2. Market research of the Food Industry to determine potential for THERMINOL and to gain knowledge of that industry.

Companies Contacted

Company	Contact
Blaw-Knox Company	Jim Gardner, Sales Engineer
Bonomo Candy Div. Gold Medal Candy Co.	Dr. M. B. Sherman, Director Research & Development
DCA Food Industries	Hal Kaufmann, New Products Mgr. Al Spiel, New Process Mgr. Charles Putnam, Gen'l Mgr. Equipment Division John Moore, Ass. Research Director
General Foods Company	Stan Barnett, Research Engineer
Hamac-Hansella Company	Tim Long, Sales Mgr.
National Biscuit Company	Jack Rossen, New Process Dev. Mgr.
Joe Lowe Company	Ernie Roth, Engineering Mgr. Frank Chipchase, Chief Engineer

Wilmington Food Industry calls preceeding week with Hank Gilbert and Don Roush

McBeth Engineering Corp.	Freeman McBeth
Wilkins Coffee Company	George Payne, Resident Engineer Smitherm Div. Hupp Corp.

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The Itinerary for this week was established as an assist by the Product Group to the district to explore the potential for THERMINOL applications in the Food Industry. The same objective will help the Product Group to complete its committment for establishing a market strategy for THERMINOL penetration into this industry.

The selected timing for this itinerary prevented it from being as productive as could have been possible should it have taken place after the vacation season. However, through the use of the phone, it was possible to locate contacts at the above companies who were helpful in providing information regarding process and heat requirements.

An earlier contact with Walter Kuzio, Technical Editor of The Candy Industry and Confectioners Journal, led to two contacts who were equipment suppliers to the Candy Industry.

Jim Gardner of the Blaw-Knox Company was completely unfamiliar with thermal liquid heating and was not optimistic at all regarding the use of THERMINOL in Blaw-Knox equipment supplied to the Confectionary Industry. The bulk of his equipment is sold for use with steam and hot water. Generally, the Candy Industry does not see future requirement temperatures above 300°F. with 350°F. as a maximum. Contrary to Jim Gardner's pessimism, the Product Group has witnessed considerable enthusiasm from the Buffalo headquarters staff of the Blaw-Knox organization. In fact, Blaw-Knox has recently supplied equipment to Kroger Company (Cincinnati, Ohio) for a shrimp frying installation in Brownsville, Texas.

Again, contrary to Gardner's thoughts relative to the Candy Industry, Dr. M. B. Sherman, Technical Director of Bonomo Candy Division of Gold Medal Candy Company, was quite enthusiastic. Dr. Sherman revealed that he has written articles on the technology of candy manufacture, one of which indicated the potential use of thermal heat transfer liquids in heating processes. Dr. Sherman also teaches food technology at one of the New York Community Colleges. He has had occasion to discuss the applicability of heat transfer fluid technique with his students. His enthusiasm revolves about the use of THERMINOL to eliminate the high cost of operating labor. Though the temperatures are relatively low, he visualizes completely automated candy production. He is alert to the fact that THERMINOL allows this automation easily and with great economy.

Dr. Sherman revealed a keen interest in working with Monsanto on a "mutually beneficial" arrangement when he leaves Bonomo to take up full time consulting activities to the candy and other process industries. He is currently consulting to Allied Chemical coincident with his work at Bonomo. I indicated an interest in working with him and that Monsanto would look forward to such an opportunity.

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Another equipment supplier to the Candy Industry, Hamac-Hansella Company, Palisades Park, New Jersey, revealed an extreme interest in the thermal liquid concept. Their equipment is manufactured in Germany and the New Jersey location was the U.S.A. headquarters and U.S.A. technical service center. My chat with Tim Long, Sales Manager, uncovered the fact that his organization had sold one candy cooking reactor to a customer who had asked that the heat transfer jacket be designed for heat transfer liquids. The customer selected a petroleum based heat transfer liquid for the application. Again, the temperatures are low, and steam is the standard heat transfer fluid. The cooking kettles in question are used for caremel, salt water taffy, candy kisses, toffee, syrups, fudge and can also be utilized for the production of fillings, marmalades, jams, fruit jellies, special syrup and juice concentrates. The heat transfer fluid capacities in these units would be relatively small. Consequently, my review of the Candy Industry from a point of view of process heating does not reveal large volume potential for THERMINOL. However, reverting back to Dr. Sherman's interest (Bonomo Candy), completely automated candy processing plants, where THERMINOL is used for environmental control as well as process heating, would be the key to much larger volumes of fluid in this industry.

The basic principle of the Hamac-Hansella cooking reactor is indicated on the attached xerox from one of their sales folders.

Stan Barnett, Research Engineer with General Foods Company, revealed a long standing interest in the application of THERMINOL to one of his projects now dormant. This involved the sublimation heating step in freeze drying of foods. We discussed the coffee roasting application somewhat. General Foods is very deeply involved in this area with their Maxwell House Division. However, Barnett had no contact with that operation. Maxwell House Coffee Division Engineering would be the contact point there. Barnett is involved with Corporate Research and all divisions normally do their own engineering. I discussed the possibility of a formal THERMINOL presentation to a mass audience at the General Foods Technical Center also implying the applicability of THERMINOL in facilities heating. Barnett immediately contacted Al Miller of the Facilities Engineering Group who was tied up and could not give me an audience. However, he indicated on the phone to Barnett that he would welcome, and make available his staff, for , a formal presentation on THERMINOL heating.

Barnett indicated much enthusiasm for a formal THERMINOL presentation late in the year. He suggested we schedule this after he has had an opportunity to build a staff.

During conversations with DCA Food Industries, it was learned that one of the doughnut frying machines developed at their Ellicot City, Maryland plant was shipped to the Midwest for installation in a customer's facility. The installation was made on a contingency basis that it would be paid for if satisfactory to the

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customer. I later learned this week at Joe Lowe Company, Englewood, New Jersey, that the DCA installation went to the Beatrice Foods Division of National Tea Company. They have some connection with the Bernie Brothers Company in the Chicago area. The writer would welcome clarification of the relationship between these three companies and which of the operations are frying doughnuts as well as the exact location of the equipment. (Dave Hosmer please note!)

DCA is extremely interested in reviewing other food areas where indirect heating with THERMINOL would be applicable. They would welcome any opportunity to work on mutually beneficial projects. While basically a family owned company, DCA exhibits a desire for progress and innovation. They are currently looking at micro-wave heating techniques and, in fact, revealed an interest where THERMINOL is applicable as a cooling media in micro-wave ovens. The writer intends to explore this further. In discussions with Joe Lowe, I learned that they currently have 31 doughnut fryers in the field. Two of the last units were sold to Continental Baking Company in Brooklyn, New York. All units are currently operating satisfactorily since Joe Lowe has taken over the engineering of the systems from the Cleaver Brooks Company, supplier of the heat transfer package. The difficulty encountered previously was severe leakage of the circulating pumps on some of the systems. This has evidently been corrected by the re-design of the pump base providing firmer footing. Ernie Roth, Manager of Engineering at Joe Lowe, indicated an extreme optimism for the future of THERMINOL within the bakery industry. He had conversations with Continental Baking at their Rye, New York headquarters with Ed Hildebrand, Director of Engineering. Hildebrand disclosed an interest in THERMINOL for complete plant heat requirements. An additional contact at Continental in Rye is William Kollman, Assistant Director of Engineering. He, too, is aware of THERMINOL and its potential in the baking industry. By copy of this report, it is recommended that Randy Graham contact Ernie Roth at Joe Lowe requesting him to arrange an interview with Continental at Rye. Ernie indicated he would be happy to do this for Randy when contacted.

National Biscuit, Fairlawn, New Jersey is in the throws of a re-organization of their New Process and Engineering Groups. The New Process Development Department headed by Jack Rossen is brand new. In discussing possible applications for THERMINOL at Nabisco, again, the main attraction would be applying the liquid heating in new facilities where environmental control as well as baking and frying are the usage areas. One immediate area of interest of Rossen's is the extrusion of doughs which takes place in the range of 300°-400°F. Again, Rossen is gaining familiarity with his own processes as well as fighting the battle of achieving renown for his new department. He is a new employee of Nabisco, having come from General Foods in Tarrytown, New York

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Attempts to contact additional possible users of THERMINOL in the Food Industry were thwarted due to vacations and poor timing. Phil Slayton, Bob Moran, and Don Olson were most helpful in digging up contacts at various companies. Additional contacts which were not made because of the press of time should be followed:

Standard Brands, Inc. Central Engineering Dept. New York Office Pl. 9-4400	William C. Neumann Ray Schwab, Mgr. Quality Control Research Center, Stanford, Conn. Larry Kogen, Quality Control Research Center, Stanford, Conn.
Nestles, Inc. White Plaines	Mr. S. J. Lirot
Colgate Palmolive Jersey City, N. J.	Mr. Charles Martin, Development Engineer, Research Department

The previous week, accompanying Hank Gilbert and Don Roush, the writer visited McBeth Engineering in Harrisburg, Pa. McBeth is designing an indirect fluid heated frying machine with the objective of marketing this competitive with existing fryers on the market. His first attempt at interesting a potential customer is General Mills in Minneapolis. The application is the frying of their new snack sensation "Bugles".

We agreed to review his specifications and drawings and cooperate in any way possible. McBeth appears to be a very strong influence in the complete potato chip plant equipment business and is apparently interested in expanding their speciality to other food products.

A visit to Wilkins Coffee Company in Washington, D.C. disclosed very complete and modern coffee roasting installations. It is evident that the process has some real advantages, however, some of these advantages have been dampened by the fact that the cost differential between a low quality coffee bean and a high quality bean is narrowing. In discussions with various people interested in coffee roasting in the field, the writer learned that there is negligible interest in the Smitherm process. I was interested to learn that the Smitherm process and equipment is leased to Wilkins Coffee on a long term basis (10 years). This can be extremely profitable for Smitherm should they make deeper penetrations into this business. Smitherm has always continually been plagued with lack of marketing acumen.

Generally, the week was informative to the writer by giving him a deeper insight into the problem and requirements of this Industry. The Food Industry "look see" that the writer is currently composing will summarize what was learned and we will provide recommendations for greater penetration into this industry.

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A second week devoted to the Food Industry, with more appropriate timing, should be scheduled. It is suggested that Randy Graham pursue this with the writer with a date mutually agreeable, but certainly later in the year.

S. Shaw

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Attachment

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