



WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

CSP's objective in initiating the Western Pennsylvania Chemical Management Service (CMS) Coalition was to test the CMS model in small and medium-sized enterprises (SME) in the Pittsburgh region. Already, CMS has been proven to work in larger companies with chemical purchases in excess of \$1 million/yr. CSP focused on the metal working industry (tool & die, metal finishing, etc.) which constitutes approximately 40% of the industry present in greater Pittsburgh. These companies utilize metal working fluids (coolants, lubricants) in their operations and are constantly looking for ways to remain competitive. Some of these companies have entered into contracts with suppliers to supply all their metal working fluids, but CSP is not aware of any full CMS programs.

Our objective was to test the CSP model in the small volume metal working industry and to achieve results similar to those achieved with larger manufacturers. We took an umbrella, “shared use” approach in order to achieve the economies of scale of a large company and attract a chemical service provider.

The Western PA CMS Coalition

The Western PA CMS Coalition is comprised of seven facilities that pooled their chemical purchases into a joint CMS proposal. The seven facilities belong to Elizabeth Carbide, Oberg Industries, Kennametal, Inc. and Callery Chemical. Due to the complexity of coordinating four, and possibly more companies, the Western PA CMS Coalition decided to begin with a leveraged purchasing program - essentially a strategic sourcing initiative using a Tier 1 provider that would include basic services for sourcing, supply, and information management. Based on bids received, each facility or firm would decide independently whether to enter into contract negotiation for the additional services. Once the program was up and running, the CMS provider could slowly and incrementally begin to provide more and more services as they do under larger, more comprehensive single company contracts, beginning to drive down chemical use across the Coalition member's facilities.

CSP took the following approach in conducting the pilot program:

- Convened a workshop with companies to lay out the CMS Coalition project objectives;
- Identified 4 companies within the Pittsburgh area with similar operations/processes and interest in testing the CMS cluster concept;

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

- Identified a partner in the Pittsburgh area, World Class Industrial Network (WIN), to assist in coordination and technical assistance of the project and build capacity for CSP in Pennsylvania;
- Provided technical assistance and guidance to seven facilities by (*See Appendix I*):
 - baselining total chemical costs and generating a chemical use and cost profile for each firm,
 - developing cost/benefit analysis to determine whether to implement an enhanced chemical service program;
- Generated a scope of potential service levels based on common elements of each firms' profile (*See Appendix I*);
- Developed a Coalition RFP and submitted to interested CMS providers;
- Convened a bidders' meeting and assisted the Coalition in their provider evaluation and selection process.

Analysis / Conclusion - What Happened

The two suppliers who submitted bids failed to make the business case to the Coalition members. At least one of the RFPs received outlined a program that would give a majority of the facilities in the Coalition a leveraged price savings of approximately 4-8% by year three, plus potential soft savings from improved information management and inventory management and delivery. However, the Coalition member companies expected clear hard savings in year one. Other than the larger Kennametal facilities, most facilities actually would take a loss in the first year. The Coalition members decided to not go forward with a CMS program.

While participation in the Coalition, at this point, is not viable for all members involved, CSP believes that a CMS Coalition could work if the right elements are offered in the provider proposals. The proposals received from providers did not go far enough in reducing costs, which immediately turned the decision-makers (upper management and purchasing folks) off. However, the proposals were only for a leveraged purchase program, with plans to provide additional services and address the environmental aspects of the program. CSP believes that at least one of the firms in the Coalition (Kennametal) is large enough with the right factors in place to implement a CMS program on their own and achieve the benefits of a successful program, for the following reasons:

- Kennametal is looking at other initiatives to leverage total value, along commodity or service value areas, within the company (solvents contract, waste contract, Safety Kleen).
- With major acquisitions in recent years, a CMS program can help standardize chemical management across the company.
- Cost is a major driver - a CMS program could help Kennametal drive down their costs.
- Staff are already stretched thin - a CMS provider "partner" would bring focus and expertise to chemical management while driving down chemical use and waste.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

- Kennametal has taken steps independently that demonstrate leadership and commitment to improvement in the areas of chemical management and reduced environmental impact, including:
 - Deployment of the 3E MSDS solution that includes on-demand MSDS availability, national emergency spill response, 365x24 poison and toxicology support, complete chemical inventories, has an outstanding Environmental Management System in Pathways,
 - development of a metrics intranet site for waste generation and utilities consumption,
 - development of a comprehensive Waste Management RFP,
 - continuing to eliminate the use of TCE/PCE at its facilities (recently recognized for its significant reduction of heptane emissions at the Carbidie operations in Irwin, PA. Carbidie reduced heptane emissions from 217 tons in 1995 to 53 tons in 2000 for a 75.5% reduction.

Lessons Learned

From the outset, CSP's goal in launching the Coalition was to determine whether, and how, small and medium size manufacturers could engage and benefit from a strategic relationship with a CMS service provider. We believe this effort went far in educating the Coalition members, CMS providers, and CSP about the potential opportunities for CMS in smaller manufacturing settings. CSP has documented what we have learned. The overall lessons learned from our efforts are as follow:

- *Economies of scale.* There is a real challenge in achieving the necessary economies of scale (comparable to that of a large manufacturer) when working with SME firms. Even with the seven facilities the Coalition had a relatively small volume of chemical purchases.
- *Value proposition.* The Coalition members failed to realize the strategic value of the model in the timeframe required. A critical criteria for success of this project was a demonstrated cost and time savings for Coalition members. In a small manufacturing setting where there is less than \$250,000 in purchase costs, the value is in the extra services provided, not in cost savings on product. Demonstrating value through onsite services is tough because the facilities are so small. Thus, the providers had to go with an approach of focusing just on procurement and then incrementally take over what is most cost effective. Given that the Coalition members failed to realize the strategic, long-term value of the CMS model, the Providers were unable to, and did not, effectively demonstrate their value proposition.
- *Management Buy-In.* CSP failed to get upper management involved early enough in the process. By the time the Coalition was in the provider selection process, upper management for most Coalition companies were still unclear about the CMS business model and were focused on unit cost reductions rather than the value of the additional services.
- *Staff Changes.* Management and staff changes were common during the project at a number of facilities in the Coalition. CSP had difficulty accessing the new management and in some cases they were not well informed of the project by Coalition representatives.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

- *Bureaucracy*. If there had been a consensus, the program would then need the approval of each company's purchasing, legal, engineering and risk departments. This would also apply to any new contract signed with a vendor, chemical changes (include process engineering in this equation), permitting review, etc.
- *Flexibility*. While most facilities do have sufficient preventive maintenance or similar activity to justify the presence of an external CMS provider, transferring these activities to a provider may entail a loss of flexibility, which became a concern for the Coalition members.

Over all we believe that issues of economy of scale exist, but that they can be overcome through the collective, Coalition approach if there is the optimal number of facilities with enough chemical purchase costs individually and collectively. The Coalition approach, however, magnifies the difficulties in overcoming the barriers inherent in all CMS programs. Companies pursuing a Coalition approach to a CMS program must be aware of the minimum thresholds necessary to overcome the economy of scale issue, and focus on overcoming the barriers that exist.

To assist us in capturing the lessons learned we scheduled follow-up interviews with all participating Coalition members and the providers who submitted bids. The questions CSP posed and the responses from the Coalition Members and Providers follow.

Coalition Member Questions.

1. What were your overall expectations of participating in the Coalition?
2. What were the specific internal drivers or initiatives within your organization that encouraged you to evaluate the CMS Coalition more closely?
3. How did/didn't the final proposals meet your expectations or convince you to pursue a contract with one of the bidders? What would have made the difference? What aspects of the proposals were most attractive? Least? Why?
4. Will you continue to, and would you recommend that others in your company, evaluate the potential for implementing a CMS program in the future?
5. Did you learn anything new about the way you currently manage chemicals? What, if anything, will you do differently in the future as a result of this?
6. What did you see as the value of CSP's involvement in this effort? What could we have done differently to improve the process?

Provider Questions.

1. What value, if any, did you get out of your involvement in bidding on this contract?
2. Were the Coalition's RFP and subsequent responses to your questions adequate for you to present a quality proposal and presentation? How could it be improved?
3. As a result of this project are you more or less likely to pursue CMS contracts with small size (<\$250,000 in chemical buy) manufacturers? With medium size (\$250,000 - 500,000 in chemical buy) manufacturers?
4. What did you see as the value of CSP's involvement in this effort? What could we have done differently to improve the process?

Summary of Coalition Member Responses.

Expectations & Drivers for Participation in the Coalition

- Our expectations for participating in the Coalition were realizing cost savings from the beginning by pulling together buying power and getting better pricing.
- Specific internal drivers or initiatives within our organization driving our involvement in the Coalition included reducing our solvent usage and recycling.
- One of the benefits of participation was an opportunity to gain an outside knowledge of metal working fluids and coolants.

Reaction to the Proposals

- The Final proposals had an increased cost to our firm, and I did not see the benefit we were going to get from an administration charge.
- Reducing our overall costs from the start (year 1 of the contract) would have made the difference.
- The offers of the two final vendors were nebulous. The services should have been well defined and the financial data clear.
- The confidentiality assurances were inadequate for our company.
- Leveraged purchasing benefits and specific improvements to compliance and reporting systems were not evident.
- We did not see the outstanding vision put forth by the CSP manifested in the proposals delivered for evaluation. We chose not to pursue the providers because they failed to convince us that they had a compelling offering of a superior chemical management system, superior people to manage chemical inventories, excellent management programs or practices. We would have been willing to make an investment and even pay a small premium if the vendors could have delivered upon the promise of the CSP proposition. Our decision was not based only on the lack of material cost savings with these vendors. Our decision was based on the fact that neither of these vendors was able to demonstrate their ability to deliver superior programs, processes and practices at an equal or lower cost.
- We were disappointed that more providers did not decide to submit a proposal.
- The providers needed to make a stronger business case.

Thoughts on CMS

- Until the time a CMS program can benefit the company on cost, we will not be evaluating one further.
- We did not get far enough into the process to learn anything new and will likely continue on our current chemical program path.
- In order for a CMS program to work in a Coalition setting, the two critical criteria are leveraged purchasing and improved compliance management and reporting. The 1% overall savings offered is inadequate.
- We have different vendors at different locations, often for very good reasons. We would find large vendor shifts unacceptable.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

- The overall CMS concept is an excellent one. Our company is not averse to working with CSP in the future to attempt to successfully launch a CMS program at our facilities if it makes sense.
- We really liked the CMS concept and approach that CSP took with the Coalition. With all of the other e-commerce, supply chain management, B2B, and other initiatives floating around, it's good to see a concept that could benefit us if the conditions were right. Unfortunately, we are a small firm, which makes it difficult to implement CMS.
- Since we are a medium sized firm that is growing, everyone is stretched thin. It is difficult to get a champion to take the necessary lead on an initiative like this.

Thoughts on CSP and the Coalition

- The value of CSP's involvement in this effort was in coordinating things from the beginning and contacting more potential suppliers.
- I don't know if the process CSP used could be improved. It just seems like a no win situation with the small size of the organizations. We can not afford to pay more for the same service we currently get. That's the bottom line.
- For the Coalition members, working through the Coalition was time intensive. The process for reaching Coalition consensus was unclear.
- We know how hard CSP has worked on this project and admire the desire to learn how to make CMS work in the SME world
- We are committed to working toward the mission promoted by CSP. We are similarly disappointed that the CSP proposition was unable to be fulfilled by either of the vendors identified for the Chemical Management Program to support this Coalition.
- CSP did an excellent job collecting and presenting viable information. The organization is easy to work with and went above and beyond the call of duty many times to coordinate the diverse interests of the Coalition, which was sometimes a very unwieldy and clumsy process.

Summary of Provider Responses.

- The true value for us was the exposure of our program and capabilities to a different market sector than we have previously explored. We also gained insight into the thoughts and concerns of the small to mid-size chemical consumer.
- The scope of work was limited due to the Coalition's cautious approach to the program. To truly get the best proposals that will have the greatest overall impact, you have to create an environment that allows "outside of the box" thinking.
- We provide chemical management at plants that spend as little as \$3,000.00 per year on chemicals. These plants are part of large corporate contracts that exceed \$10M in annual chemical purchases. This works where there is a corporate wide benefit and a corporate mandate for the program. This could be accomplished by a very strong coalition that was committed to the end result. I could see a coalition concept working in an industrial park setting. You could provide centralized warehousing and management of the chemicals for all leases.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT
Final Report – June 18, 2001

- CSP provides an education tool to an industry sector that had not been exposed to chemical management and its benefits. If CSP is going to pursue more coalitions for future chemical management contracts, then CSP needs to convince the small to mid-size manufacturers that they need to shed non-core activities, like chemical management and then use those resources to improve their manufacturing processes.
- The Coalition needs to get better management buy-in up before reaching the provider selection phase.
- You have to make the RFP worth our while in terms of volume and opportunity. We think it can work with SMEs but there needs to be more \$250,000+ facilities involved.

CSP's Commitment

CSP remains committed to CMS as a business model for improving the environmental performance of small and medium size firms. Given the lessons of the Western PA CMS Coalition, we expect that both customers and providers will understand better what it will take to successfully launch a CMS program in these sectors. CSP values the opportunity to work with the Coalition on this project and looks forward to continuing the CMS dialogue with each of you in the future.

For more information on the Western PA CMS Coalition project please contact:

- Greg Chambers, Oberg Industries. (724) 295-2121; greg.chambers@oberg.com
- Bill Greenawald, Elizabeth Carbide. (412) 751-3000; billg@eliz.com
- Michelle McGregor-Smith, Kennametal, Inc. (724) 539-4727, michelle.mcgregor-smith@kennametal.com
- Bob Muller, Callery Chemical Co. (412) 967-4194, bob.muller@MSAnet.com
- Jill Kauffman Johnson, Chemical Strategies Partnership. (415) 421-3405 x13; jill@chemicalstrategies.org

Appendices

- I. CSP Analysis and Recommendations Based on Initial Baseline of Coalition Facilities

APPENDIX I

CSP Analysis and Recommendations Based on Initial Baseline of Coalition Facilities

To: Greg Chambers, Oberg Industries
Bill Greenawald, Elizabeth Carbide
Randy Stas, Kennametal
Staci Polinsky, Kennametal

From: Tom Votta, Mark Stoughton, and John Claussen

Date: 3 May 2000

Re: CSP Coalition: Findings from Cost Baseline & Recommendations

The Chemical Strategies Partnership (CSP) performed a series of baselining analyses to assess the total costs of chemical management at six Coalition members' facilities in western Pennsylvania. Our three goals were to:

- Determine the viability of a chemical management services (CMS) program for the Coalition
- Develop a cost baseline and outline CMS opportunities for each member to facilitate individual decisions on whether to move forward as a Coalition, and
- Provide the Coalition with the collective information necessary to determine how to move forward.

Based on the results of the analyses, we believe that it is feasible to move forward with the development of a basic CMS contract (as defined in the next section). The initial contract should cover sourcing, supply, and information management with the goal of incrementally expanding it to cover more comprehensive services. This memo complements the individual reports generated for each facility and summarizes the potential benefits and costs of pursuing a CMS contract for the Coalition along with our recommendations for moving forward.

OPPORTUNITIES AND SCOPE OF CMS CONTRACT

The following areas delineate the range of opportunities for the Coalition's consideration and inclusion in a CMS contract. The individual facility case reports enclosed with this memo describe CMS opportunities specific to your individual facilities.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

- *The most basic level of CMS—strategic sourcing/leveraged purchasing via a Tier 1 provider.* Coalition members have similar chemicals needs in the areas of coolants, oils, and gases, indicating the potential scope of a strategic sourcing contract.
- *Outsourcing preventive maintenance functions.* For most Coalition facilities, preventive maintenance (including machine sump clean-out, lubrication, and common sump maintenance) demand at least one full FTE (full-time equivalent). These activities are often outsourced in “full” or comprehensive CMS contracts.
- *Waste disposal and recycling.* Waste streams exhibit even more similarity among Coalition partners than do chemical purchases. Inclusion of waste management in the CMS contract may offer cost and environmental improvement opportunities.

BENEFITS TO COALITION COMPANIES

Any CMS option will include the strategic sourcing element to leverage chemical buys across coalition companies. Cost savings opportunities in this area often carry CMS programs financially in the initial stages of the program. The magnitude and extent of savings can only be gauged by the market during the RFP stage. Opportunities for cost savings related to preventative maintenance and waste will accrue for facilities who adopt a more comprehensive program and are outlined in the individual facility case reports.

A key benefit of implementing even a basic CMS contract would be to establish a single point of contact for procurement of major classes of chemicals. A CMS provider would then be able to improve information management in the form of MSDS, chemical use tracking, and unified invoicing. Furthermore, better management of chemical information facilitates ISO 14000 certification that is becoming increasingly important to the tool and die sector as automakers and others require ISO certification of their suppliers.

Coalition members' may see the largest positive impacts of the single point of contact in the form of “soft” savings. Soft savings derive from economies of time for EHS managers, maintenance managers and purchasing personnel through this single point of contact. Soft savings are largest, therefore, when the number of vendors in the current chemical procurement structure is large.

Total chemical buy is another important issue when discussing opportunities for a CMS contract for the Coalition. Excluding bulk gases, the Coalition facilities purchase approximately \$300,000 of chemicals annually. Existing CMS programs that maintain at least one on-site chemical management staff generally requires at least \$500,000 in annual chemical buy. Recruiting additional partners may be necessary to attract a CMS provider for any of the basic opportunities identified above. In general, the financial savings a CMS provider can achieve through leveraged purchasing increases as the value of the total chemical buy it manages increases.

COSTS & DRAWBACKS

Our baselining analyses reveal a few constraints impacting potential CMS contracts at individual facilities. Across all the facilities, two such issues deserve note:

- *Flexibility for small facilities.* While most facilities do have sufficient preventive maintenance or similar activity to justify the presence of an external CMS provider, transferring these activities to a provider may entail a loss of flexibility. The Coalition's relatively small facilities are characterized by a high degree of cross-training and task flexibility. This enables maintenance and facilities personnel to be shifted to cover unexpected circumstances. Careful

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT

Final Report – June 18, 2001

consideration should be given to maintaining flexibility if an external provider is engaged for these activities.

- *Transition costs.* As with most business initiatives, implementing a CMS contract requires a commitment of managers' time, as well as some adjustments to day-to-day operations. These transition costs are real, though they can be minimized with effective communication and good data during implementation. Demands on managers' time associated with CMS implementation must be considered in light of other commitments.

RECOMMENDATIONS

CSP recommends that the Coalition move forward with a CMS contract. If, based on your assessments of potential costs and benefits, the Coalition decides to move forward, we propose the following approach:

- Develop a basic CMS contract covering sourcing, supply and information management for the major chemical classes in the Coalition's use profile. This is essentially a strategic sourcing initiative using a Tier 1 provider.
- Include in the CMS contract basic EHS elements such as compliance information management, and periodic facility P2 audits.
- Include in the CMS contract the option for individual facilities to contract for dedicated on-site services and provide incentives within the contract to encourage the Tier 1 provider to offer these services.

NEXT STEPS

Based on the results of the baseline analysis and as proposed in our original workplan presented to the Coalition on January 20, 2000, we recommend the following next steps:

- *Individual calls.* As noted in our April 21 e-mail, CSP will be scheduling individual calls with each Coalition member to discuss the facility case reports, recommendations and next steps with your organization. People responsible for relevant functions (purchasing, operations, etc.) should review the case report(s) and participate in these calls. The purpose of the calls is to clarify or correct any of the data presented in the case reports and to solicit each Coalition member's impressions of the three bulleted items identified in OPPORTUNITIES AND BENEFITS on pages one and two of this memo.
- *Coalition meeting.* The next Coalition meeting is tentatively scheduled for June 2 at Kennametal's corporate offices in Latrobe. The objective of this meeting is to make final decisions as a Coalition about how to move forward. CSP will develop a briefing memo for this meeting following the individual calls.
- *Recruiting additional companies.* While the initial four members of the Coalition decided to move forward with the baselining and business case analyses, it was generally agreed that the Coalition would become more viable as more firms join. It will be important to develop a recruiting strategy to identify potential companies prior to program design and RFP development.

WESTERN PENNSYLVANIA CMS COALITION PILOT PROJECT
Final Report – June 18, 2001

CSP'S COMMITMENT

CSP remains committed to CMS as a business model for improving the environmental performance of the tool & die industry. With an initial focus on developing a strategic sourcing-type contract, we expect that the opportunities to move incrementally towards a more mature CMS contract exist. While a strategic sourcing alone does not directly achieve our goals of chemical use reduction or improved environmental performance in the industry, it is a first step towards improving chemical management and reducing chemical usage.

We value the opportunity to work with you in this effort and look forward to speaking with each of you individually over the next week. In the interim, please do not hesitate to contact us regarding any corrections, questions or comments you may have.