

Rx: Managed Care Facility For 'Dirty' Industries

By Jack MacSwan

Many small- and mid-sized plating and finishing jobshops can no longer afford to build systems and purchase equipment to comply with changing federal and state environmental regulations. A Michigan developer's innovative concept for finishers to "team-up" and share the burdens could be the answer for many.

Studies by the U.S. Environmental Protection Agency (EPA) and the National Association of Metal Finishers (NAMF) predict that 25–40 percent of electroplating facilities employing fewer than 50 people will close within the next decade. The prediction is based on the fact that 40 percent of the profits of these firms will be spent on environmental compliance, prohibiting them from competing favorably with their larger counterparts. The same fate awaits other highly regulated industries, such as textile dyers and circuit board printers.

A Boston-based industrial real estate firm, The Liberty Companies, has developed a solution. It is creating a common, shared-service facility—a sort of managed-care environment for industries with toxic waste issues. The concept is simple: Install centralized systems (such as wastewater treatment, compressed air and steam boilers), negotiate bulk utility rates, and share these services and savings with building occupants on a pay-per-use basis. Tenants enjoy two distinct advantages. First, the economy of scale created by this facility establishes a cost platform that levels the playing field between small firms and their dominant competitors. Second, the time and resources invested in environmental issues can be redi-



rected toward core business activities, such as production improvements and marketing.

Liberty's project is being developed in Kalamazoo, MI, and will be known as Kalamazoo Plating Center (KPC). The company has owned a 680,000 ft² manufacturing plant there for several years. The idea to create a common facility grew from the building's incumbent electrical service, and the company's knowledge of the environmental pressures on plating shops. Preliminary research established the viability of the concept, and more recent hard marketing has generated commitments to a considerable portion of the available space. In fact, reservations have been placed on half the available space, with a sufficient number of additional prospects to close out the facility. Liberty has expanded its promotion (originally

focused on Michigan and its border states) to include other regions, Canada, and manufacturing firms with in-house captive plating operations that may pose less of a risk off-site.

The printed circuit industry is also being canvassed, because compliance and waste treatment issues are similar. Although KPC will be unique in the U.S., common facilities for platers have been operating in Japan and Europe for years.

Sharing Services to Slash Costs

KPC occupants will be independent jobshops with segregated premises of about 20,000 ft² on up. Each unit will have separately metered utilities stubbed in, rooftop HVAC with a drain-out to the common wastewater treatment system—a system designed to handle an aggregate discharge of 1.25 million gal/day. Billing will be

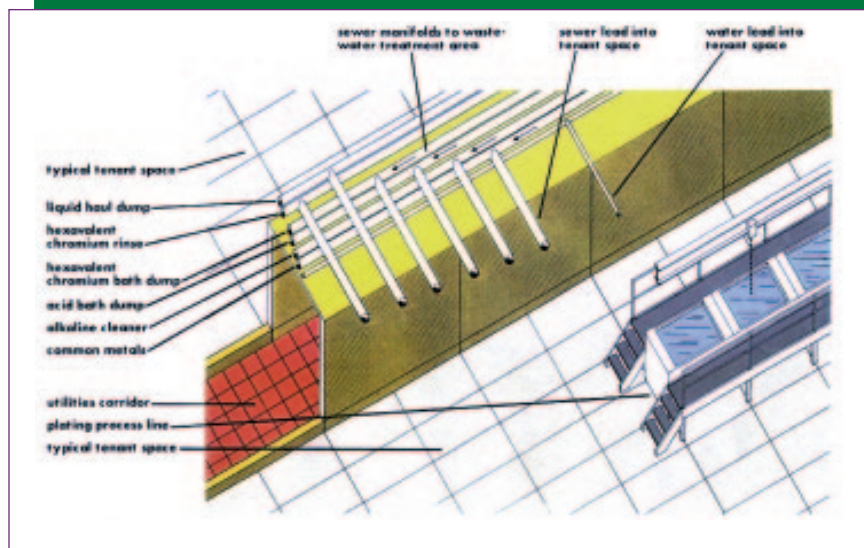
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based on individual tenant discharge volume. By sharing the cost of the WWT operation, costs to cleanse the facility's effluent to comply with local standards is significantly less than typically experienced by small- to mid-sized companies, because operation costs and amortization are fixed, while capacity is elastic. Central steam production for process line hot water and central compressed air production also have a positive cost impact. Tenants will avoid front-end hardware investment, production costs will be more favorable, and system maintenance will be handled by KPC.

A major benefit resulting from collectivism is the impact on electric rates. By negotiating a rate on the aggregate demand of 12 to 15 already high-volume users, the bulk consumption level qualifies the facility for rates that are 30–40 percent below what these firms currently pay per kilowatt hr. Several shops now in receipt of proposals have calculated yearly savings of \$125,000 or more, just on electricity.

Additional savings will be generated by local government and some creative vendors that see an attractively large new customer. Kalamazoo township has extended generous direct-to-tenant tax abatements on real estate and personal property for 12 years. Proposals from a couple of chemical distributors have offered truckload pricing and just-in-time delivery, if a sufficient number of tenants agree to buy from them.

As any executive in the metal finishing or printed circuit business knows, the cost of compliance is burdensome, has already killed off competitors, and will become more pernicious as environmental regulations intensify. Dischargers in New England, for instance, face heavy metal compliance limits that have been proven to be lower than levels present in the water they purchase. Their discharge is cleaner than the municipal water supply! When the EPA-authored Great Lakes Initiative (GLI) takes effect, industrial dischargers in all Great Lakes Basin states will have the same lofty targets. This will force a new round of hardware investment and increased supervisory responsibility—costs that cannot easily be passed on to customers. Every new revolution in the upward spiral of costs eliminates



Section through utilities corridor and tenant space at Kalamazoo Plating Center.

another layer of small jobshops, their market share absorbed by bigger companies, while their jobs disappear.

Keeping it Clean

The KPC treatment system is a continuous-flow model employing neutralization, flow equalization, clarification and sand filtration (see block flow diagram). The facility will discharge to the Kalamazoo Water Reclamation Plant (KWRP) according to either local or EPA limits for the affected pollutants, whichever is more stringent. Current discharge limits are, compared to more aggressive states and Canada, fairly easy to achieve. In fact, other Michigan POTWs may be more strict in comparison to Kalamazoo, which has a new facility with an industrial pretreatment program on-site. The GLI will radically alter these targets, rendering compliance more difficult and expensive. Escalating compliance

standards are a fact of life in Michigan and every other state.

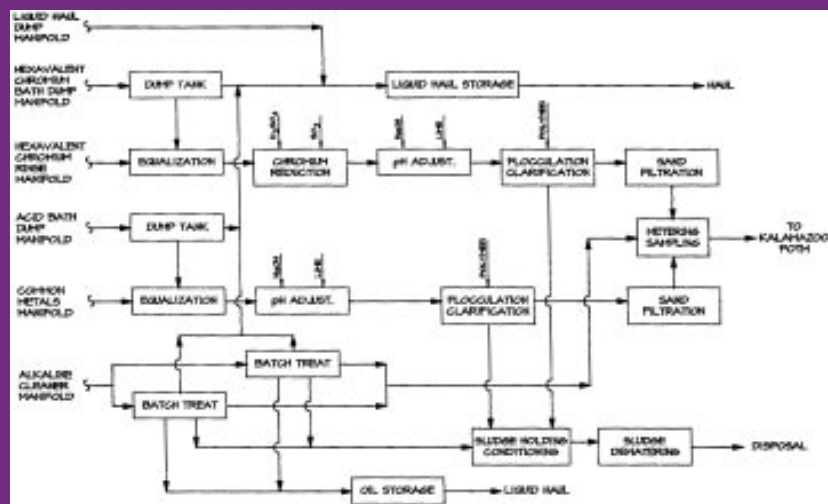
Under normal circumstances, businesses that need to raise capital for equipment upgrades use their real estate as collateral on the debt. But circuit board printers and electroplaters can find themselves in an uncomfortable conundrum when in need of finance. Pollution problems normally attendant to this real estate, either real or perceived, often inhibit lenders who feel the bite of current lender liability laws. The erosion of profits cited earlier, and an inability to borrow on real estate often leaves regulated companies between the "rock" of environmental compliance and the "hard place" of installing systems upgrades that they cannot afford. The next step, too often, has been the industrial boneyard.

Because environmental pressures will be relentless, as will the nominal requirement to manage costs, strategic options are limited. Potential survivors can raise revenue, sell assets or lower operating costs. Revenue will be difficult to enhance as new surface coating techniques and board designs shrink market sizes. If any assets are salable, the temporary cash infusion will only solve short-term problems. That leaves cost suppression and containment as the only viable methods to succeed over the long haul. For small companies, that might recommend circling the wagons in the KPC fashion. It is a sure-fire way to flatten costs and prophylactic indemnity against insurmountable cost increases downstream.

Regional Map



Wastewater Treatment System—Block Flow Diagram



Almost a Bed of Roses

Locating in a common facility is not entirely without risk. The most frequently voiced concern raised by the Phase 1 group of KPC prospects relates to competition. Production techniques within these industries is somewhat proprietary and closely guarded. Good, experienced employees are coveted and customers are valued above all. The co-mingling of jobshops in one plant, even in segregated space, leads to fears that employees will be pirated, taking trade secrets with them. Privileged customer information could expose one shop to competition from another.

In hashing out these issues between prospects and developer, however, the emerging opinion is the following:

- Restricting occupancy to tenants with solid safety and environmental records will be necessary to standardize business practices.
- Solid companies that are quality-driven will not be exposed to customer loss and seem to have little concern as long as price slashers and environmental renegades are denied tenancy.
- The proximity of other shops enables small firms to join forces to pursue big customers.

- Beneficial consolidation within the facility will occur over time, allowing shops to divest themselves of unprofitable lines to others, while still offering customers one-stop shopping.
- The entity in its entirety will become a marketing phenomenon that will draw new business in the fashion of a shopping mall.

Liberty admits that the most formidable barrier to occupancy will be the total relocation of a plater or board shop, with the cost to move being the obstacle. A portion of the development financing, however, has been earmarked to assist prospects that will relocate to, or open a satellite in KPC on a first-come basis. The developer is optimistic that public financing may be in the offing, because support for the project at local, county and state levels has been overwhelmingly positive. Even the Department of Natural Resources (DNR), often the bane of electroplaters and circuit board printers, has exhibited enthusiastic support. With one pipe stem to supervise instead of many in diverse locations, the DNR visualizes a regulatory benefit and better controls.

Conceptually, this facility offers a win-win-win situation to the various parties. Tenants get fabulous cost benefits and can offload their "dirty" work. The community gets an under-utilized building redeveloped, generating more taxes. Jobs are created or saved. And, Liberty gets tenants. The developer hopes that everyone involved can point to the project with pride, and that others recognize the possibility that this is the fashion in which our toxic industries should be managed. It makes a lot more sense than padlocking the doors and sending everyone home. ○

About the Author

Jack MacSwan is vice president and director of marketing for The Liberty Companies, One Liberty Square, Boston, MA 02109. The Liberty Companies is an industrial real estate company that includes Liberty Properties, Batterymarch Development Group and BDG Advisors, specializing in the acquisition, redevelopment and management of industrial properties, particularly those with environmental problems.

KPC Pollutant Concentration Levels

Concentration levels shown represent the 30-day average limit for each category prior to discharge at KPC. They represent either Kalamazoo Water Reclamation Plant or EPA limits, whichever is more stringent. Tenant pretreatment or liquid haul will only be required to the extent that non-approved pollutants exist in the waste stream, or that abnormal concentration levels inhibit the waste treatment works from achieving target levels by conventional methods.

Pollutant 30-Day Avg. Concentration (solubility test basis)

Cadmium	0.02 mg/L
Chromium	1.37 mg/L
Copper	1.12 mg/L
Lead	0.06 mg/L
Nickel	0.80 mg/L
Silver	0.24 mg/L
Zinc	1.48 mg/L

Approved Non-treated Pollutants

Total Cyanide	0.13 mg/L	(Treatment not provided; may require tenant pre-treatment)
Total Toxic Organics	1.07 mg/L	(Treatment not provided; discharge subject to approved Toxic Organic Management Plan)
Oil & Grease	50.0 mg/L	
pH	1.0–13.0	