

"THE POWER OF PARTICIPATION"

1. The Premise and the Labor-Management Partnership

"Right at the beginning, the company president, Dave Hoag put his stamp on the project as something we had to do. It was strategic, a necessity for the success of the company's marketing and profitability.

"For us to have successful quality through Integrated Process Control (IPC) implementation, we needed significant high level involvement of the total workforce. This new work system in L-SE is designed specifically to provide worker involvement and worker input."

**-Frank Altimore,
Vice-President,
Joint Ventures,
LTV Steel**

"Technology alone does not make a quality product. It is people."

**-Don Vernon,
General Manager,
L-SE**

In their 1983 labor contract, LTV Steel and the United Steelworkers had established in other LTV operations a new practice called "Labor Management Participation Teams' (LMPT's). In 1984, the development of L-SE offered an opportunity to extend these new labor-management practices.

"A lot of us were thinking of total change--not just empowering workers to make decisions on continuous improvement projects--but to make total decisions on everything that happened on the plant floor, without supervision."

**-Sam Camens,
Fmr. Exec.Assistant to President,
United Steelworkers of America**

The LTV Steel-USWA Labor Agreement, (dated June 29, 1984) for a new Electro-Galvanizing operation was unique to the industry and separate from the Basic Steel Labor Agreement. Its significance is evident by the fact that this original L-SE labor agreement was signed by no less than the International President of the USWA.

With substantial amounts of overtime pay, gainsharing, and pay-for-skills, L-SE workers became the highest paid bargaining unit in "Basic Steel". For the union, however, a most important aspect of L-SE was building the new plant on a unionized site, in the Cleveland area where there were 1200 laid-off steelworkers.

Through almost 10 years and 3 contract re-negotiations, the main provisions of the original labor agreement have remained as the framework for the L-SE organization. It was a blueprint for an historic transformation of the roles of worker and manager, a daring jump into the future that would require new skills, new relationships, and new beliefs from the people, almost all of whom have come from the traditional steel industry.

LTV STEEL & USWA AGREEMENT FOR ELECTRO-GALVANIZING LINE

SECTION II PURPOSE AND INTENT

It is the intention of the parties to develop at the Cleveland Plant a work life system that will be unique in the domestic steel Industry and one which will embody Labor-Management participation principles to its fullest extent. The parties will endeavor to provide the employees covered by this Agreement with the opportunity to utilize their full experience and knowledge in joint effort programs with Plant Management to create a highly efficient facility in which the quality of work life is enhanced by the work environment and embraces human dignity.

However, in 1985, raising capital for a new electro-galvanizing plant was problematic for LTV Steel. 1985 was not a good year in the steel industry. Banks were hesitant cause of a general economic recession. LTV did not have a lot of its own capital to invest. It became apparent that a better way to finance would be to joint venture this project. LTV's partner became Sumitomo Metal Industries (SMI), already designated as the Japanese supplier of the new plant's electro-galvanizing technology.

It would nevertheless be a mistake to perceive "L-SE" (an abbreviation for LTV Steel-Sumitomo Industries- Electro-galvanizing) as a "Japanese transplant". Despite some resemblances to Japanese industry, (eg. people all wear the same uniform at L-SE, managers have very simple office quarters, and there are some Japanese managers on-site), L-SE is a made-in-America company.

"My Japanese partners are freaked out. They can't believe we give the employees this much responsibility...In our system, we let people make decisions...In the Japanese system, employees certainly gather all the information, but management makes the decision."

**-Don Vernon,
General Manager,
L-SE.**

II. The CORE Work Structure

L-SE personnel did visit Japan, especially to study the new technology, but the new work system was "Made-in-America"—by the original 45 workers (40 of whom were hired from the sizable laid-off steelworkers population in the Cleveland area), and the original managers, assisted by a local work-life consultant, Paul Huber.

"In the very beginning, with our management force on board, we went through an exercise to determine what people wanted from their jobs.... We called those Individual Needs / Goals.... We put that

sheet of paper developed by the management folks in the drawer.

"When the workforce came on board, we did the same thing with that group of people. Then we pulled the management sheet out of the drawer. The two lists of Individual Needs /Goals were almost identical. From that common realization of what we wanted from our job, we started to develop the concept of how our company would function."

**-Don Vernon,
General Manager,
L-SE**

"What we set up as a group early on, maybe you want to consider utopia. We may never get there, but we're always going to be working to try and achieve that..."

"We wanted people to have the 'say-so' in what they were going to do on a daily basis... We wanted to make it a safer, cleaner environment than what we had--one that was more family-oriented..."

**-Tom Zidek,
President,
USWA Local 9126**

"When we first developed L-SE as an organization,...we talked about where we wanted to be during start-up, and where we wanted to be 5-10 years down the road. We're still on that curve.

"Our philosophy is one of continuous improvement, not just in the technology, not just the product, but also the way we work as an organization."

**-Cal Tinsley,
Plant Manager,
L-SE**

"It is a major mistake not to include people in the concept and design of the organization...If you don't do that, it's inevitable that you are going to have a 'we-they' situation in the organization.

"Secondly, it is critical to clearly define what we call the Givens—those things you cannot change. That's usually given by the leader, that you will not violate EEO laws, safety laws, and it also prescribes profitability as one of the main goals of the organization.

"We developed those Givens and presented them to the workforce and management before they proceeded to design the organization. So they knew the limits within which they could design."

**-Don Vernon,
General Manager,
L-SE**

Guided by the framework of Individual Needs / Goals and the Organizational Givens, the original employees and managers designed the core work structure of responsibilities and manning to operate and maintain the high-tech EGL operation.

This organizational design work occurred during the period from hiring in August 1985 until April 1986 when L-SE started-up. In order to facilitate start-up, workers chose one work station to concentrate on and therefore, did not initially rotate jobs. Start-up was extremely successful and far exceeded comparable Japanese performance with such technology.

There are now 70 workers on five crews. Each crew of 14 workers determines their own Rotation among 9 work stations.

The rotation includes a mix of complex operating functions along with more routine warehouse / packaging tasks. Rotation has been vital to the development of each worker's knowledge of the whole technical process and thus, their ability to help out one another.

"That understanding of the entire process is very important. I've trained on all the operating jobs. I'll probably never be a decent entry operator. I at least know what's going on down there. So, when there's a problem, I can help. The fact that we know about the process when we run into a problem, we can all help trouble-shoot it from our own experiences. Where if I was only trained in one small area, something that goes on the other end of the line, I couldn't be any help to anyone. I think it's important that we all know the process."

**-Diane Scott,
Process Technician,
L-SE**

"In a traditional job, you're going to get bored doing the same thing all the time. What motivation is there if you can come in and do your job standing on your head?"

**-Rich Blasens,
Process Coordinator,
L-SE**

"I like the break-up of monotony. You're not doing the same thing constantly, day after day. There's always something new to learn."

**-D.J. Hudson,
Process Technician,
L-SE**

"It's very important that we rotate when things are going bad because nobody wants to do this job two days in a row when things are going bad. Everybody's willing to take their turn, no matter what..."

"The flexibility is two-way, not just for production reasons, but it's also our form of stress relief."

**-Cliff Nowak,
Process Technician,
L-SE**

“The pro of the work system is it’s very flexible. For crewing up, the way we train our people and we put a lot of money in training our people, they’re able to do a multitude of different jobs. If you have a call-off or a report-off, or somebody doesn’t feel well and they don’t come in, that’s not a major problem because there’s somebody else who can fill the position. That’s very valuable. In the old mill, if you had somebody call off, you were on the phone begging other people to come in and try to fill the position or you’d be shutting the line down.”

**-John Griffin,
Process Coordinator,
L-SE**

A key work function that is rotated and shared among workers is the Inspection Function. (There is no “Inspector” as such, at L-SE). This is a major departure from the traditional steel industry, where there is a strict managerial authority over quality control. At L-SE, everyone is responsible for quality control.

Perhaps, the most dramatic change in work roles is the way the Maintenance responsibilities are integrated with Operating functions. Each member of a shift crew has received training to do general preventive maintenance.

As well, there are 2 assignments on each crew, which are rotated and shared by all persons having received advanced electrical or mechanical training. The benefits of this work structure are evident in the immediate response to maintenance problems, and the increasing ability of the L-SE workforce to do complicated re-build maintenance during planned maintenance outages.

In sum, the L-SE core work structure is a unique, integrated triad. Each worker is multi-functional, combining expertise in operating-maintenance-quality functions. As a crew, workers are able to “run” the electro-galvanizing line semi-autonomously, with maximum response capability.

III. The Support Structure

i) Training and Skill Progression:

"To get promoted here, you don't have to wait for someone to retire or get sick. You can progress yourself through the system pretty much at your own rate, which also increases your pay."

**-Wes Humphreys,
Process Technician,
Vice-President,
USWA Local 9126**

To develop the skills of each individual to be effectively multi-functional, workers at L-SE are engaged in some form of training at least 2 days out of every month. Continuous training is a rewarding and necessary part of everyone's job. (This implies a training investment equal to 12% of the total wage bill at L-SE.)

What also facilitates training is a unique shift schedule. After having completed a weekend tour of 2 12-hour 'Nights', an L-SE worker goes on what is called a 'Flex' shift. During this 'Flex' shift, the remaining 16 hours of one's work week are devoted to coverage on day-shift for other workers doing training, or for one's own advanced training in some aspect of maintenance.

Although L-SE began with the promise of significantly increased training, the pressures of business almost jeopardized this concept. Workers accepted the fact that there would be little progression at start-up, but there was a lot of frustration when this situation extended for almost a year.

"This is when the union proved its worth."

**-Sam Camens,
Fmr. Exec.Assistant to President,
United Steelworkers of America**

The union forced the issue. Management relented and added a fifth crew to enable the volume of training required by the pay-for-skills program.

"We are still in a traditional industry. We still have the pressures of business. We tend sometimes, and we did early in our career, overlook the people side for a short time, when our company started up in 1986, and we ran full-out for several years to establish the business.

"After that, our people started grumbling. What about that training, Mr. Vernon? What about those committee meetings? Oh my goodness, we forgot about the people side of the business. We had to hire more people and take care of those things.

"There's a people side of the business and there's a business side. Both have to function smoothly. If one fails, the other fails. In the long run, you've got to maintain the people side and the technology or business side. That leads to success. And, we think we've achieved that."

**- Don Vernon,
General Manager, L-SE**

*ii) Integrated Process Control (IPC):***

IPC combines a participative work system with statistical control. IPC is a hybrid of a number of quality systems. The very heart of IPC is employee participation on-the-job, and in regular workshops.

"IPC has helped us alot...With the workshops, we talk about the problems which customers are having. It keeps you aware of what to keep an eye on. There's alot of participation in problem-solving through IPC. It keeps everybody on the same path."

**- Diane Scott,
Process Technician, L-SE**

A more recent activity is the Customer Concern Team, a group of L-SE employees formed to recommend corrective action based on monthly customer surveys.

** IPC is detailed in the video, "Quality Pays".

The results of IPC work include dramatic reduction in defect claim costs (\$4 million annual savings), and receipt of the 1992 USA TODAY Quality Cup.

*iii) Information Systems &
An "Informating" Strategy:*

What fuels IPC, and indeed, the whole approach to training and employee development is L-SE's openness of information: at the macro-level of the business (e.g. monthly Team Meetings of all workers and managers), and at the micro-level, access to data about each element in the work process.

The micro-processor based sensing devices which apply programmed instructions to equipment along the EG Line also convert action into data--an electronic text of the EGL process. Workers use this information in all of their work activities, including IPC.

Computerized technology has thus been used at L-SE not only to automate operations--but also to "informate"! An "informating" strategy implies a new form of worker participation, employing people's ability to think conceptually and apply scientific reasoning.

The elements of an "Informating Strategy" at the L-SE plant include:

- worker access to data (e.g. work station computer terminals);
- employee involvement in software development;
- theoretical and practical understanding of the total work process of manufacturing (e.g. education in chemical processes, job rotation)
- data used to gain insight into continuous improvement of work processes (e.g. IPC workshops).

Within modern workplaces where automation increasingly replaces the physical labour of workers and also takes over many mental tasks, an informing strategy is key to maximizing the potential for people to make a difference.

"The people who are solving most of the problems are the people running the line."

**- Dave Davis
Process Technician, L-SE**

L-SE's "informing" strategy has developed a new generation of steelworker. (S)he has become a Knowledge-Worker.

Most workers appreciate the change. Gone is much (not all) of the dirty work. Gone is most (not all) of the physical fatigue. What does remain is the age-old curse of shift-work. What comes with the new role is more responsibility, albeit with more autonomy on-the-job.

"When somebody trusts you and trusts in your judgment to handle the job, that makes you feel a whole lot better about yourself."

**-D.J. Hudson,
Process Technician, L-SE**

"You have to be responsible here, that's for sure. You've got to be a self-starter and take the initiative to look at things, and not just sit back and wait for somebody to tell you to do this job."

**- Diane Scott,
Process Technician,
& Secretary, Local 9126, USWA**

"Some people put more effort into it because they want to be more involved. Other people are just at an involvement level that suits them. At different stages in each person's life, there are also different involvement levels. We're a good mix."

**- Mark Wirtz,
Process Technician, L-SE**

iv) *The Process Coordinator (PC):*

The role of L-SE's Process Coordinator (PC) is fundamentally different from that of a "supervisor". The PC has no "personnel" tasks. They do no disciplining, nor any hiring. Workers keep track of their own work-hours and overtime. They do their own scheduling, and plan their training.

The particular contribution made by the PC is to ensure (at each pre-shift Face Meeting) that all the crew's resources (operating-maintenance-inspection) are fully deployed. The PC is "the 15th member of the crew."

"The PC provides support. Rather than be the boss, he's there to help you out if you have a problem."

**- D. J. Hudson,
Process Technician, L-SE**

"Accountability for results lie with me. Ultimately, I answer for what my crew did."

**- Rich Blasens,
Process Coordinator, L-SE**

"If someone knows at least as much as I do, I don't jump in, trouble-shoot it, and do their job for them. If I know how to trouble-shoot it, and they don't, they can help me work on it, so that next time, they will know how to handle it themselves."

"Training is constant here. It is the overwhelming responsibility of this job."

I spend a lot of my time each day trying to show somebody something. Other people show me things. It's really an atmosphere where we share training. We share knowledge."

**- John Griffin,
Process Coordinator, L-SE**

Unlike traditional steelworks, where there would be a supervisor for each of electrical maintenance, mechanical maintenance, inspection, shipping, and for each shift of operations, there is only 1 PC for each of 5 shift crews. The PC is the "integrator" of all of the above functions, and the PC's like the freedom this provides, together with the closeness that they have with the crew. (4 of the 5 PC's are ex-members of the bargaining unit.)

Nevertheless, each morning at the Management meeting, it is the PC who is held accountable for the crew's performance. It is the PC who represents the workers in most day-to-day managerial decisions, and it is also the PC who is the first-line of Management representative to the crew.

The PC is remunerated in a manner similar to all other members who are paid for overtime. This role has all the ambiguity that is consistent with the flattened hierarchy within the L-SE organization.

Gone are many of the status differences (and barriers) between workers and managers. Yet, the sharing of knowledge and information can also generate tension, as it challenges the traditional concept of Management as the preserve of "system"/expert knowledge. Thus, as a total environment of participation, L-SE has also transformed managerial authority. From the first-line role of PC through to other dimensions of Management, people have created new roles for managers.

IV. Transformation of Managerial Authority

L-SE middle-Management positions like that of the Quality Control Manager are vastly different from their counterparts in traditional industry. The Quality Control Manager no longer manages a department, because the quality control system is employee-owned and -driven. The QC Manager has become a leader, a facilitator of problem-solving, and a key communicator of customer concerns. He has become the "conscience" of L-SE's exceptional quality control system.

Engineering Managers have steadily trained union employees so that each crew can now troubleshoot the vast majority of on-line problems. Another factor is that employees have been regularly involved in selecting/installing new equipment. Of note is that most of the engineering staff has been recruited and trained from the L-SE bargaining unit.

There is no full-time Labour Relations Manager on-site, because the pattern at L-SE is that this is an activity which both parties manage together. Whenever issues do arise, they are addressed quickly and openly. However, the participative environment has tended to minimize the occurrence of issues. Among senior managers like the General Manager, there is a sense that L-SE has been an opportunity to make labour history.

"I came from a traditional steel company. I was brought up in the traditional way of thinking, and I was taught how to be confrontational. I was taught how to fight the union, how to direct people. I spent at least 30% of my time handling grievances, developing rules, and then, fighting to ensure that the rules got followed.

"I came from a plant with a very autocratic boss, and one thing I learned was that I didn't like it when I was there.

"We recognized when we started this place up, that there would be a period of time, a learning curve, where we would have to give more direction than we would later in our learning curve.

"My personal experience was initially, could I give up the reigns to calling all the shots. And, I learned I could, and I learned I got better decisions... We did learn that ten heads are better than one. No matter how good my head is, somebody out there knows more than I do about something.

"I learned to get away from the hero complex."

**- Don Vernon,
General Manager, L-SE**

From day one in the life of L-SE, the premise of the organization has required non-traditional behaviour by all ranks of Management--what the General Manager refers to as "the end of managers as heroes".

"Sometimes, managers feel like they've lost control, and in a sense, they have. They have given up much to this group of people to make a success out of their lives and their company.

Some managers can't live with that. But, one thing that I am certain of is that this type of organization has much more to offer in the way of profitability and individual employee satisfaction, in reputation and commitment to quality--than does the autocratic, "I'm the boss, you do it my way" type of organization."

**-Don Vernon,
General Manager, L-SE**

"Participation is much more difficult, at least from my perspective, compared to a traditional system. I think we all feel it can be a painful experience from time-to-time. But the end results, you can't argue with. We've accomplished a lot, and we've really got a lot to be proud of!

If you stay around here long enough, you'll see people sometimes fall back into the old style of doing things, where a Process Coordinator or a Maintenance Engineer may feel very strongly about something and start directing people to do what they want.

"One of my roles as plant manager is to provide support to our participative system, to try and keep us from falling back into a traditional mode. That's when you have to step back and remember all those good things we've accomplished--it's those good things that keep us in line."

**- Cal Tinsley,
Plant Manager, L-SE**

The joint consultative process at L-SE has led to the now common practice that recruitment, scheduling, training, and many other traditionally "management-only" decisions are the work of joint committees composed of some managers, with a predominance of union members.

"In our system, the committees are the avenues by which we problem-solve, by which we move responsibility to the workforce. They are the place where specific details get hashed out. And, we have to provide the time for people to meet and work-through the issues."

**- Cal Tinsley,
Plant Manager, L-SE**

The Health & Safety committee is one of the few joint committees that has a make-up similar to traditional forms. However, it has an uncommon degree of autonomy, whereby the committee can authorize, on its own, a budgeted number of manhours and supplies to correct safety matters.

The Scheduling committee consists of a representative from each crew, who consult with the Plant Manager, but function essentially autonomously to create people schedules consistent with the needs of the business, (within overtime and training parameters).

The Hiring committee, like all committees is a collection of volunteers, trained in interviewing techniques and employment law. Typically, this committee has 8-10 union members and 2-4 management representatives. They decide who are the best candidates to hire and extend offers of employment to them.

There are numerous other joint committees, including Pay & Progression, IPC, and Gain Sharing.

The Gain Sharing committee of 8-10 union members and 3-5 management representatives has the contractual responsibility to create and maintain a gain-sharing plan.

V. Gain Sharing and Profit Sharing**

In 1994, the L-SE/USWA labour agreement added the potential for a Profit Sharing bonus, in addition to productivity gain sharing.

Both of these financial sharing programs have reinforced the participation of employees in the strategic goals and governance of the L-SE organization.

The Gain Sharing committee chooses determinants for the financial pay-outs, the weighting of those determinants, and the semi-annual targets for each determinant. (Similar to the Pay & Progression committee, the Gain Sharing committee has always received approval on any of its products, although unlike the other L-SE committees, it does function as a "recommender" to senior Management, rather than as a totally autonomous group.)

Employees qualify to earn up to 25% of their salary/wage from gain sharing. Payment is made semi-annually, and each May and November, the joint committee determines the next period's targeted "gains" which will reward employees as well as the company.

A major accomplishment of the committee has been its ability to deal with significant unforecasted events which impact plan performance but are outside of the control of the employees. The committee has not tried to develop a set of rules for all circumstances, but rather, the approach has been to create a "fairness forum" where unusual conditions can be reviewed and acted upon.

The gain sharing bonus has consistently paid-out to employees the full 25% above their negotiated wage. Together with skill progression pay raises, gain sharing and profit sharing have made L-SE employees the highest-paid steelworkers in the Ohio Valley. At L-SE, this level of pay is considered to be just reward for people who are the difference in profitability and extraordinary quality.

**Gain Sharing details in video "Quality Pays"

PROFIT ADDITIVE TABLE*

<u>Profit of Company in \$MM</u>	<u>Percentage of Wages Multiplier</u>
12	5.0 (Max)
10	4.33
8	3.67
6	3.0
4	2.0
2	1.0
0	0

(Wages/Eligible Earnings include base salary of employee, plus overtime and gain sharing.)

* 1993 L-SE / USWA Labor Agreement, p.5

"My experience after 9 years of the L-SE experience is that, yes indeed, participation does work. It's very difficult. It requires alot more effort than traditional approaches. It requires alot more trust. Yet, if you are truly desirous of moving into this kind of system, the pay-offs are truly fantastic."

**- Frank Altimore,
Vice-President, Joint Ventures, L-SE**

"Working here is heads-and-shoulders above working in a traditional steel mill."

**-Tom Zidek,
Process Technician
&
President, Local 9126 USWA**