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OCTOBER 1983 S J V E CONFERENCE

BASIC THOUGHTS OF VALUE ANALYSIS/VALUE ENGINEERING

BY LAWRENCE D MILES

AS YEARS GO BY, THE PEOPLES OF THE INDUSTRIAL AND THE CONSUMER WORLDS WILL FEEL GREATER AND GREATER GRATITUDE TO THE INDUSTRIAL AND PROFESSIONAL PEOPLES OF JAPAN WHO, EARLY ON, SAW THE GREAT VALUES IN THE VALUE METHODOLOGY, AND HAVE BECOME WORLD LEADERS IN MAKING ITS BENEFITS USEFUL TO MANKIND.

BASICALLY A SYSTEM WHICH PRODUCES BETTER DECISIONS, IT BENEFITS FIRST THE PRUDENT BUSINESSMAN, THEN HIS CUSTOMERS, FIRST THE INDUSTRIAL OPERATION, THEN ITS CUSTOMERS.

IT IS NEVER EASY TO BE THE PIONEER. IT REQUIRES WORK, REACHING OUT, STUDY, EXPENSE, AND OFTEN THE COST OF MISTAKES, BUT, SOMETIMES IT MAKES WINNERS. THIS TIME IT HAS. WE BRING HIGH HONOR TO THE JAPANESE. THE VALUE METHODOLOGY BRINGS PROPER QUALITY AND PROPER COST. AS A CONSUMER, I CAN SAY THAT IT WILL HELP THE SIGN "MADE IN JAPAN" CONTINUE TO MEAN "HIGH QUALITY" AND WILL HELP TO KEEP THE "BUYING PRICE" SO THAT I CAN AFFORD IT.

MAY THESE HONORED PIONEERS USE THIS NEW FORCE TO DEVELOP NEW POTENTIAL AND CONTINUE HIGH SUCCESS IN TOMORROWS WORLD.

LOOKING AHEAD

TODAY IS DIFFERENT FROM YESTERDAY. FUEL CRISES LOOM. COMPUTER SCIENCE IS DOING THOUSANDS OF JOBS WHICH PEOPLE USED TO DO. MANY AREAS OF THE WORLD ARE BECOMING SCIENCE INTENSIVE. EACH POLITICAL DIVISION OF THE EARTH SEEKS WAYS TO KEEP OUT COMPETITION FROM OTHERS WHO MAY EXCEL IN SCIENCE OR PRODUCTIVITY. LONG ESTABLISHED SUCCESSFUL PRACTICES "WONT DO IT". THE PAST IS GONE, NOT BECAUSE WE WANT TO CHANGE, BUT BECAUSE WE MUST.

ONE TREMENDOUS SYSTEM, WHICH PRODUCES GOOD CHANGE, HAS JUST BEEN PROVEN DURING THE PAST 35 YEARS. IT IS THE PACKAGE OF CONCEPTS AND METHODS WHICH MAKE UP THE "VALUE" TECHNOLOGY - ACHIEVING IN ALL DECISION MAKING WHAT THE CUSTOMER OR USER WANTS - THE FUNCTIONS AND THE QUALITY, AND AT COMPETITIVE COSTS.

WE HAVE LEARNED IN 35 YEARS THAT THIS IS NOT BASICALLY A SYSTEM FOR IMPROVING PRODUCTS -- BUT RATHER, A SYSTEM FOR IMPROVING PEOPLE, THEN THE PEOPLE IMPROVE PRODUCTS, PROCESSES, DECISIONS AND ACTIONS OF ALL KINDS, NOT ONLY ON ONE JOB, BUT IN ALL OF THEIR WORK.

TO IMPROVE PEOPLE, WE MUST UNDERSTAND PEOPLE. FOR THIS, WE HAVE LEANED HEAVILY UPON CONSULTING PSYCHOLOGISTS. IT WOULD SEEM THAT NEARLY EVERY THINKING PERSON HAS THE POTENTIAL OF PRODUCING DECISIONS TWICE AS GOOD AS THEY DO. WHAT A RESERVOIR OF EXTRA COMPETENCE IS AVAILABLE FOR THOSE WHO TEACH THEM!

I READ A STORY THAT HAD A VITAL AND USEFUL IMPACT. IT SAID "PEOPLE ARE LIKE ELEPHANTS - THEY ARE WHAT THEIR PAST HAS MADE THEM. THEY'VE BEEN TAUGHT SOME THINGS. THEY HAVE EXPERIENCED SOME THINGS. THEY HAVE FELT SOME THINGS. THEY HAVE SEEN SOME THINGS. ALL OF THAT CREATES AUTOMATIC SOLUTIONS IN THEIR MINDS".

IN MY COUNTRY WE SEE ELEPHANTS, AT CIRCUSES, OFTEN A ROW OF ELEPHANTS, EACH WITH A SMALL CHAIN AROUND ONE FOOT, ATTACHED TO A SMALL STAKE WHICH IS DRIVEN INTO THE GROUND. DOES EACH STAY THERE? YES. DOES EACH WANT TO STAY THERE? PROBABLY NOT. DOES HE HAVE THE STRENGTH TO PULL THE STAKE? A HUNDRED TIMES OVER. THEN WHY DOESNT HE PULL IT? HE HAS ACCEPTED THE LIMITATIONS THAT HE HAS LEARNED. HE IS "PROGRAMMED". THE ACHIEVEMENT POTENTIAL OF THE REMAINDER OF HIS BRAIN AND/OR HIS MUSCLES HAS BEEN NULLIFIED. STARTLINGLY, ALL PEOPLE ARE "PROGRAMMED".

SINCE THESE ARE METHODS TO IMPROVE THE EFFECTIVENESS OF THE OPERATION OF THE HUMAN BRAIN, IT IS IMPORTANT TO EXAMINE IT FOR A FEW MINUTES. MUCH IS UNKNOWN, BUT MUCH IS KNOWN. IT ACTS AS THOUGH IT WERE COMPOSED OF BILLIONS OF ADJACENT CELLS WHICH ARE CAPABLE OF CONDUCTING MINUTE AMOUNTS OF ELECTRICITY. ANY BRAIN ACTION IS THE RESULT OF ELECTRIC CHARGES OR CHEMICAL ACTIONS GOING FROM CELL TO CELL.

EACH TIME A SITUATION HAS BEEN MET AND THE BRAIN HAS REACTED TO IT, A PATH IS FORMED, FROM CELL TO CELL. EACH TIME A SIMILAR SITUATION APPEARS THE ELECTRICAL CHARGES OR CHEMICAL ACTIONS SEEM TO GO IN THAT PRE-ESTABLISHED PATH. THIS IS PROBABLY THE MECHANISM OF HABITS AND OF ESTABLISHED THINKING PATTERNS. ELECTRIC OR CHEMICAL CHARGES, GOING THROUGH THESE PATHS CONSTITUTE THOUGHT, MEMORY, VALUES, DECISIONS.

AT BIRTH THE HUMAN BRAIN IS A LITTLE PROGRAMED, FROM PARENTS GENES, TO ACCOMODATE NEEDED PHYSICAL FUNCTIONS AND SURVIVAL NEEDS, BUT ACTS AS THOUGH IT HAS BILLIONS OF AVAILABLE UN-PROGRAMED CELLS AWAITING THEIR FIRST IMPULSE. SOON THE PROGRAMMING STARTS, AND

PATHS, WHICH BECOME PREFERRED PATHS; FROM CELL TO CELL ARE FORMED BY THE MILLIONS. THESE ESTABLISH THE INDIVIDUALS VALUES, HOW HE THINKS, WHAT HE THINKS IS RIGHT AND BEST AND HOW TO REACT TO VARIOUS SITUATIONS. THEY BASICALLY BECOME LIFETIME GUIDES AND CONTROLS. THESE PRE-ESTABLISHED BRAIN PATHS OFTEN HEAVILY LIMIT FREEDOM TO DEVELOP INNOVATIVE APPROACHES TO IMPORTANT PROBLEMS. THUS, IT HAS BEEN FOUND THAT WHEN SOMETHING VERY DIFFERENT, VERY NEW AND PERHAPS VERY MUCH BETTER IS REQUIRED TO MEET PRESENT NEEDS, BETTER RESULTS COME WHEN THE PROBLEM IS PUT INTO A FRAMEWORK THAT WILL AVOID THE PREESTABLISHED BRAIN PATHS.

I WILL PRESENT A PROGRAM WHICH OFTEN DOUBLES THE PRODUCTIVITY OF THE HUMAN MIND. I WILL SHOW THE MENTAL STEPS WHICH PRODUCE BETTER DECISIONS. I WILL ILLUSTRATE HOW THESE STEPS ARE APPLIED, AND SHOW EXAMPLES OF THE RESULTS. TO HELP MAKE THIS LECTURE EASY TO LISTEN TO, I WILL PRESENT A MIXTURE OF EXAMPLES, WHICH ARE USUALLY EASY AND EXCITING TO LISTEN TO, AND METHODS, WHICH ACHIEVE THE NEW THINKING, WHICH ARE OFTEN DULL. NEXT I WILL SHOW AN EXAMPLE, THEN FOLLOW WITH SOME METHODS WHICH PRODUCED THAT EXAMPLE AND OTHERS LIKE IT. PLEASE NOTE THAT WE ARE NOT DEALING WITH FRINGE ITEMS, BUT "CENTER STAGE" MATTERS, OF GREAT IMPORTANCE.

EXAMPLE 1 DEALS WITH THE CONSTRUCTION RECENTLY OF AN ENORMOUS DAM FOR FLOOD CONTROL AND OTHER BENEFITS IN WALLA WALLA WASHINGTON USA, BY THE UNITED STATES CORPS OF ENGINEERS. THIS WAS A PROJECT BY THE MOST HIGHLY SKILLED AND EXPERIENCED PROFESSIONAL GROUP IN THE UNITED STATES ENGAGED IN THAT TYPE OF WORK. DOZENS OF ENORMOUS DAMS HAVE BEEN BUILT THRUOUT THE WESTERN STATES MOUNTAINS. GREAT EXPERTISE AND

SKILL HAVE BEEN DEVELOPED BY THE MEMBERS OF THE CORPS. VOLUMES OF KNOWLEDGE HAVE BEEN ACCUMULATED. CONCRETE SETTING RATES, CONCRETE SHRINKAGE RATES, CONCRETE HEAT GENERATION WHILE SETTING, ESSENTIAL REMOVAL RATES AND QUANTITIES OF HEAT, AND ALL OTHER VITAL FACTORS ARE WELL KNOWN. LITTLE SURPRISE THAT MOST RESPONSIBLE MANAGERS FELT THAT IT WOULD BE A WASTE OF TIME AND MONEY TO HAVE PEOPLE HIGHLY SKILLED IN VALUE ENGINEERING METHODOLOGY, BUT RELATIVELY LITTLE SKILLED IN DAM CONSTRUCTION "TAKE A LOOK AT IT".

THE DAM WAS 500 METERS LONG AND 60 METERS MAXIMUM HEIGHT. IT WAS DESIGNED, DRAWINGS AND SPECIFICATIONS PREPARED AND COMPETITIVE BIDS SECURED. THE BEST BID WAS \$24,000,000. WITH 3 YEARS CONSTRUCTION TIME. THE CONTRACT WAS AWARDED. HOWEVER THE UNITED STATES LAWS NOW REQUIRE THAT ON USA EXPENDITURES OF OVER \$10,000,000. AT LEAST A MINIMAL LOOK MUST BE MADE AT IT BY PEOPLE SKILLED IN VALUE ENGINEERING APPROACHES, QUALIFIED CVS PEOPLE. IN THIS CASE IT WAS REQUIRED THAT \$40,000. BE SPENT FOR SUCH A STUDY. WILLIAM L KELLEY WAS THE MANAGER INVOLVED. HE CAUSED THINKING TO FOLLOW THE STEPS OF THE VALUE ANALYSIS JOB PLAN.

"EXACTLY WHAT ARE WE TRYING TO DO?" THEY AGREED "GET THAT CONCRETE IN PLACE AND PROPERLY SET, USING TODAY'S WORLD'S BEST PRACTICES". THEY SET FOR THEIR EXACT CREATIVE TASK "HOW MIGHT WE DO THAT JOB FOR \$12,000,000 INSTEAD OF \$24,000,000.?" THEY HAD DEEP CREATIVITY. THEY SEARCHED, THEY LISTENED, THEY LEARNED. THEY TESTED, THEY PROVED. A CONSTRUCTION TYPE WHICH REMOVED CONSTRUCTION COST, TIME AND COMPLICATION WAS FOUND, AND PROVEN SUITABLE. THE DAM WAS BUILT.

COST INSTEAD OF \$24,000,000 BECAME \$16,000,000. TIME REQUIRED, INSTEAD OF 36 MONTHS BECAME 16 MONTHS.

A QUANTUM FORWARD JUMP IN THE ART OF DAM CONSTRUCTION WAS CREATED. THE METHOD OF "ROLLER COMPACTED" CONCRETE, WAS USED, ELIMINATING ENORMOUS COSTS AND TIME FACTORS FOR WATER COOLING AND OTHER COSTS. AS A FURTHER BENEFIT THE UNITED STATES CORPS OF ENGINEERS, WHICH HAD SUPERVISION OF THE CONSTRUCTION WORK, ADVISED MR. KELLEY THAT SINCE THEIR PERIOD OF SUPERVISORY WORK WAS SHORTENED FROM 36 MONTHS TO 16 MONTHS, THEY HAD MADE ANOTHER \$2,000,000. SAVING OF CASH. BENEFIT FROM THE \$40,000. OF CVS WORK WAS THE ORIGINAL \$8,000,000. PLUS THIS \$2,000,000, FOR A TOTAL OF \$10,000,000., AND 20 MONTHS MORE USE OF THE I

IN THE LONG-RUN HOWEVER, THE GREATEST BENEFIT CAME FROM "GROWING" THE PEOPLE INVOLVED. A NEW AND DIFFERENT APPROACH WHICH THEIR PREVIOUS EXPERIENCE AND "KNOWLEDGE" DENIED TO THEM WILL NOW BRING TO THEM, GREATER ACHIEVEMENT AT LOWER COST THRUOUT THEIR FUTURE.

WHY IS THIS SYSTEM SO EFFECTIVE IN "GROWING" PEOPLE

AND HOW IS IT DONE?

ANSWER IT GIVES THEM DIFFERENT FRAMES OF REFERENCE, DIFFERENT ATTITUDES AND DIFFERENT APPROACHES.

IT IS DONE BY INTENSIFYING FUNCTIONAL THINKING AND FOLLOWING THE STEP-BY-STEP METHODOLOGY ALREADY SET FORTH IN THE JAPANESE TRANSLATION OF THE TECHNIQUES OF VALUE ANALYSIS AND ENGINEERING 2ND EDITION PAGES 69 THROUGH 93. IN ACHIEVING SOME OF THE HIGHEST RESULTS, USERS HAVE STRENGTHENED THE PROCEEDURES IN TWO WAYS.

ONE - WHEN SEVERAL PEOPLE ARE WORKING TOGETHER MORE EMPHASIS IS PLACED AT HAVING THE MINDS OF EACH ONE WORKING ON EXACTLY THE SAME PROBLEM AT EXACTLY THE SAME INSTANT.

TWO - IN THE ANALYSIS STEP, PAGE 74 IT HAS BEEN FOUND THAT BETTER RESULTS ARE OFTEN PROMOTED AND SECURED IF, WHEN COST IS A FACTOR,

A SPECIFIC AMOUNT OF DESIRED COST IS STATED. IT CAUSES BETTER THINKING.

EXAMPLE 2 DEALS WITH QUITE A NORMAL SITUATION IN COMPANY MANAGEMENT. IT WILL SHOW THE STEPS THEY TOOK IN CHOOSING THE VALUE METHODOLOGY, WHAT THEY DID, AND WHAT RESULTED.

THE PRESIDENT OF COACHMAN INDUSTRIES, KEITH CORSON REPORTS THAT IN THE LATE 70'S INVENTORIES WERE CLIMBING, LOSSES WERE MOUNTING AND THE COMPANY WAS ENDANGERED. HE SAID "WE HAD COST REDUCTION EFFORTS IN PLACE AND BELIEVED THEY WOULD BE SUFFICIENT". HE ADDED, "LITTLE DID WE KNOW!".

STEP ONE - THE COMPTROLLER READ OF A MEETING OF A FEW HOURS AT WHICH THE VALUE ENGINEERING SYSTEM WOULD BE EXPLAINED. HE ATTENDED.

STEP TWO - HE TOLD ABOUT IT SO OPTIMISTICALLY TO HIS MANAGEMENT THAT THEY ARRANGED FOR HIM TO TAKE THE ONE WEEK COURSE TO REALLY LEARN THE SYSTEM.

STEP THREE - HE REPORTED WITH SUCH CONFIDENCE THAT J K FOWLKES, PRES. OF VALUE ANALYSIS INC. WAS INVITED TO COME AND TELL MANAGEMENT ABOUT IT AND TO MAKE SUGGESTIONS.

STEP FOUR - MANAGEMENT DECIDED THAT "THIS WAS THE WAY TO GO".

1. THEY SCHEDULED THE WEEK'S TRAINING FOR ALL MANAGEMENT AND AS MANY AS PRACTICAL TOP PROFESSIONAL PEOPLE.

2. FOR TRAINING, TEAMS OF 4 TO 6 WERE ARRANGED.

ONE TEAM CONSISTED OF THE CEO AND THE BOARD OF DIRECTORS.

FOR TRAINING PROJECTS, THEIR "LIVE" SEVERE PROBLEMS WERE USED.

AFTER THE WEEK, ALL RETURNED TO THEIR JOBS.

PRESIDENT CORSON RECENTLY REPORTED:

"CURRENTLY OUR BALANCE SHEET IS THE BEST IT HAS EVER BEEN."

"WE ARE CURRENTLY OUT OF SHORT-TERM DEBT".

"WHILE THE FIRST QUARTER OF 1982 STILL PRODUCED A LOSS OF \$114,000,

THE FIRST QUARTER OF 1983 PRODUCED EARNINGS OF \$3,700,000.

COACHMAN INDUSTRIES INC STOCK PRICES SHOW INVESTORS REACTION TO
 THEIR ACTIONS: PER SHARE MARCH 1982 \$ 7.00
 APRIL 1983 41.00
 AUG. 1983 60.00*

* NOW SPLIT 2 FOR 1 IT SELLS FOR 30.

HOW DID COACHMAN DO IT?

IN A WEEK'S SEMINAR OF THE VALUE METHODOLOGY, THEY "GREW" THEIR OWN PEOPLE. IT IS NOT UN-REASONABLE TO BELIEVE THAT THEY DOUBLED THE CONTRIBUTION OF MANY IN MANAGEMENT, IN ENGINEERING, IN MARKETING, IN PERSONELL WORK, IN MAINTANENCE, IN RESEARCH AND DEVELOPMENT AND PERHAPS IN PROCUREMENT. THESE CONTRIBUTIONS CAME WITHOUT NEW HIRINGS AND NEW TRAINING.

TIME AFTER TIME, I HAVE BEEN STARTLED, EVEN SHOCKED BY THE INCREASE IN COMPETENCE OF MEN AFTER TRAINING. FOUR QUOTATIONS WILL COMMUNICATE.

" THE INFORMATION AND KNOW-HOW GAINED BY THIS SEMINAR CANNOT BE MEASURED. IT HAS OPENED OUR EYES AND CHANGED OUR WAY OF THINKING".

"THE SEMINAR IS TERRIFIC. I HAVE NEVER GOTTEN SO MUCH GOOD IN SO SHORT A TIME -- IT HAS CHANGED MY THOUGHT HABITS".

"THIS SEMINAR HAS BEEN ONE OF THE MOST ENLIGHTENING EXPERIENCES I HAVE EVER ENCOUNTERED".

"THIS SEMINAR CERTAINLY GIVES EACH INDIVIDUAL A NEW OUTLOOK AND A NEW APPROACH".

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I HAVE BEEN ASKED, "NOW, AFTER 35 YEARS, WHAT ARE YOUR TOPMOST BELIEFS?" I WILL ANSWER.

1. PEOPLE HAVE ENORMOUS MENTAL POWER WHICH THEY NEVER HAVE LEARNED TO, OR BEEN ALLOWED TO USE -- NOT JUST A FEW PEOPLE, BUT MOST PEOPLE.

2. IT IS POSSIBLE AND PRACTICAL TO TEACH MOST OF THEM, HOWEVER, USUALLY IT IS/NECESSARY TO, AT THE SAME TIME, CHANGE THE ENVIRONMENT IN WHICH THEY WORK. I SPEAK ONLY FROM EXPERIENCE IN THE USA. OFTEN, WHAT I READ INDICATES THAT IN JAPAN MAN-SUPERVISOR-ENVIRONMENT RELATIONSHIPS MAY BE VERY DIFFERENT.

3. TO TEACH THEM AND CHANGE THEM, THEY MUST BE OVER-WHELMED WITH REALITIES THAT ARE PERTINENT AND THAT ARE NEW TO THEM.

4. ONE TYPE OF SEMINAR WITH WHICH I AM EXPERIENCED ACHIEVES THESE BENEFITS IN ONE OR TWO WEEKS. I'LL LIST ITS BASIC ELEMENTS.

* MANAGEMENT-SET ENVIRONMENT ATTITUDE THAT BENEFICIAL CHANGE IS NEEDED.

* "CAN-DO" ENVIRONMENT WITH PEERS WHILE DOING GROUP PROJECT WORK WHICH IS ILLUMINATED BY NEW KNOWLEDGE AND NEW TECHNIQUE.

* EXPERIENCE SHOWS THAT THE FOLLOWING CONTAIN THE TECHNICAL KNOWLEDGE, ATTITUDE BUILDERS AND ACTION BUILDERS NEEDED.

"AN EFFECTIVE 40 HOUR TRAINING SEMINAR" PAGES 358 - 360 OF THE MCGRAW-HILL 2ND EDITION.

MORE DESCRIPTION OF THE ITEMS "SPECIFIC KNOWLEDGE" AND "SPECIALIZED KNOWLEDGE" HAS HELPED SOME TEACHING GROUPS, SO I WILL PROVIDE IT HERE. THERE ARE SCORES OF SPECIALTIES, WHICH SOMETIME, SOMEWHERE FIT AND PERFORM THE FUNCTION BETTER AND MORE ECONOMICALLY. THE PROBLEM WAS THAT TO GET THE UP-TO-DATE KNOWLEDGE A REPRESENTATIVE WOULD BE INVITED TO THE SEMINAR FLOOR - TO TELL HIS STORY. HE USUALLY WANTED 30 TO 40 MINUTES. WE ALLOWED HIM ONLY 7. WE TOLD HIM THAT WHEN HE WAS INVITED, BUT OFTEN WHEN HE GOT THERE HE WOULD TRY TO TALK ON FOR A HALF HOUR. SO, IN ORDER TO GET LOTS OF KNOWLEDGE IN, WE HAD THEM SIGN FOR 7 MINUTES. WE TOLD THEM TO FOLLOW THIS FORMAT "THIS IS WHAT WE HAVE, AND HERE'S WHERE

YOU CAN USE IT". THEN AFTERWARDS THE MAN COULD GO TO THE TABLES WHERE-
EVER HE HAD STIRRED UP SOME INTEREST AND WORK WITH THEM. TRAINEES WERE
STARTLED AT THE "SPECIFIC USE" SPECIALTIES THEY LEARNED ABOUT. TYPICAL
WOULD BE: SPECIAL STEEL, HIGH TEMPERATURE INSULATION, HIGH TEMPERATURE
LUBRICATION, NEW TYPE ELEC. CONTACT, SPECIAL FASTNERS, NON-WEARING BRAKE
BANDS, PRE-COATED METALS, SPECIAL PURPOSE PLASTICS AND 100 MORE.

THE TRAINEES SAW SO MANY VERY USEFUL, VERY SPECIAL ITEMS THAT THEY
DEVELOPED THE PATTERN OF BELIEVING THAT WHATEVER THEY NEEDED WAS
AVAILABLE - JUST FIND IT.

EXAMPLE 3 SHOWS ANOTHER EXPERIENCE IN "GROWING" THE COMPANY'S OWN
PEOPLE. MR PHILLIPS REPORTS THAT PHILLIPS INDUSTRIES OF DAYTON OHIO
FACED A SAD PICTURE IN THE LATE 70'S. THE COMPANY MAKES WINDOWS, FANS,
PLASTIC BATH TUBS AND OTHER SPECIALTIES LARGELY FOR THE MODULAR HOUSING
INDUSTRIES. BUSINESS WAS GOING DOWN. PROFITS WERE FALLING. THE COMPANY
HAD 31 PLANTS, 4500 EMPLOYEES. 1979 EARNINGS WERE DOWN TO \$6,000,000,
AND FALLING. IT WAS TIME TO ACT.

R.H. BRETHERN, PRES. AND CHIEF OPERATING OFFICER SAID, "THERE IS
VERY LITTLE MAGIC INVOLVED, THE COMPANY HIRED AN OUTSIDE CONSULTANT /
TO DO A VALUE ANALYSIS OF WHAT IT DOES AND HOW AND WHY IT DOES IT."
"HE HELD SCHOOLS FOR OUR PEOPLE AND EVEN SOME OF OUR CLIENTS. IDEAS
SURFACED FROM OUR PEOPLE. THEY KNEW THESE THINGS ALL OF THE TIME. IT
WAS A MATTER OF VERBALIZING, SO WE COULD EXECUTE THEM. IN ALL INSTANCES
WE ENDED UP WITH A HIGHER QUALITY PRODUCT, OR ONE WE COULD PRODUCE
FASTER, AT LOWER COST."

AS PHILLIPS OWN EMPLOYEES WERE TAUGHT THE BASICS OF VALUE ENGIN-
EERING, IT WAS OBSERVED THAT "WE DOESN'T TELL US HOW TO RUN OUR
BUSINESS, BUT HOW TO RUN OURSELVES".

MR PHILLIPS CONFIDES, "THIS WAS NO SMALL DECISION FOR US. IT TOOK US 3 MONTHS TO MAKE THE DECISION AND TO IMPLEMENT IT. THE \$100,000 WE SPENT HAS ALREADY BROUGHT US BACK \$1,000,000, FULLY IMPLEMENTED, WITH ANOTHER \$1,000,000 IN PROCESS. WE SAVED \$2 PER WINDOW BALANCE SYSTEM AND THE NEW SYSTEM IS MORE TROUBLE FREE WITH LOWER MAINTANANCE COSTS." /

MR PHILLIPS SAID "SOME HARD DECISIONS WERE NECESSARY. SEVERAL PLANTS WERE NOT EFFECTIVE PRODUCERS, AND HAD TO BE CLOSED. THE COMPANY IS NOW FINANCIALLY STRONG WITH EXCESS CASH INVESTED IN SHORT-TERM SECURITIES. THE LATEST 12 MONTHS EARNINGS WERE UP FROM THE 1979 LOW OF \$6,000,000 TO \$12,000,000.

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I CLOSE BY REVIEWING THAT IN THE VALUE METHODOLOGY WE HAVE A PACKAGE OF TEACHING TOOLS WITH ASTONISHING POWER TO PROVIDE GROWTH IN HUMAN COMPETENCE.

A GREAT ADDED BENEFIT IS THAT IT IS GROWTH ON AND IN THE JOB -- AND PROVIDES BENEFITS TO BOTH THE INDUSTRY AND THE PERSON.

I AM IMMENSELY HONORED TO HAVE FATHERED THESE TRAINING CONCEPTS WHICH YOU AND OTHERS USE SO EFFECTIVELY.

...LDM...