

## SPECIAL PRESENTATION

Larry D. Miles, former Manager of Value Services at General Electric, is the founder of value analysis/engineering. He introduced it to the various businesses in General Electric as well as to areas outside of the Company, where it saved design engineers, manufacturing engineers, and purchasing agents untold millions of dollars of non-working costs. In 1950, General Electric presented him with the Charles A. Coffin award.

Mr. Miles, who retired in 1964, is being honored at this Conference for his significant contributions to productivity improvement. A display in the poster area depicts his achievements and the utilization of value techniques in General Electric's engineered producibility methodology. Mr. Miles will attend the Monday dinner session, at which time Conference attendees will have an opportunity to meet and talk with him.

*Mr. Fred Garry, GE - V. P. of Corporate Engineering & Manufacturing Introduced Mr. Miles and Presented Above Plaque.*

# CONFERENCE ON TECHNICAL MANAGEMENT

JUNE 3-6, 1984  
DISNEY WORLD, FLORIDA

GENERAL  ELECTRIC

at G E Conference June 3/6 - 1984 - at Disney  
World Fla - The Miles Value Analysis Story was told  
on 3 Panels - Set up in ballroom with phones from  
Other G E Technical Divisions - Panel 1

## THE MAN AND HIS IDEA

### VALUE ANALYSIS

It is successfully implemented by the use of a specific list of techniques, a body of knowledge, and a group of trained skills. It is an organized creative approach which has as its purpose the efficient identification of unnecessary cost, i.e., cost which provides neither quality, nor use, nor appearance, nor customer features.

L.D. Miles



### LARRY MILES' ASSUMPTIONS

1. MOST PRODUCTS INCLUDE UNNECESSARY COSTS
2. ALL CUSTOMERS WANT IS FUNCTION
3. FUNCTIONS ARE EITHER USE OR ESTEEM
4. COSTS CAN BE ASSIGNED TO FUNCTIONS
5. ANYTHING NEW OR NOVEL ACCOMPLISHES ITS FUNCTION THROUGH A REARRANGEMENT OF FAMILIAR THINGS

LAWRENCE D. MILES, former Manager of Value Services at General Electric Company, is the founder of value analysis/value engineering. He introduced it to the various departments of General Electric, the University of California, and a large number of professional societies such as ASTM, ASME, SAM, etc., where it saved design engineers, manufacturing engineers, and purchasing agents untold millions of dollars of non-working costs. In recognition of this accomplishment, General Electric presented Mr. Miles with its Charles A. Coffin Award in 1950, given in memory of the Company's first president. In 1955, Mr. Miles received the Navy Distinguished Public Service Award, and in 1961 he was elected President of the Society of American Value Engineers. Mr. Miles retired from General Electric in 1964.

## HOW IT BEGAN

HIS IDEA (1947)

LED TO HIS

CONCEPT AND METHOD

WHICH MOTIVATED A

CORPORATE MANAGEMENT  
COMMITMENT (1948)

USE WORLD WAR II APPROACHES TO  
SOLVING MATERIAL AND PART SHORTAGES  
TO DEVELOP BETTER PRODUCT COST  
REDUCTION PRACTICES

USE "FUNCTION" BASED THINKING  
NOT  
"PART" BASED THINKING

HARRY WINNE, VP-ENGINEERING  
"CALL IT VALUE ANALYSIS"

NICHOLAS DU CHEMIN, VP-MANUFACTURING  
"TRAIN 1000 MEN A YEAR"

# LAWRENCE D. MILES FOUNDER OF VALUE ANALYSIS/ VALUE ENGINEERING

## HISTORICAL HIGHLIGHTS

*Panel 2*

1946

VALUE ANALYSIS PROGRAM  
ESTABLISHED WITH LARRY AS  
MANAGER—VALUE SERVICES

1948-52

\$10 MILLION BENEFITS REPORTED

1950

DR. CHARLES A. COFFIN AWARD PRESENTED  
TO LARRY "IN RECOGNITION OF HIS  
OUTSTANDING ACCOMPLISHMENT THROUGH  
THE ESTABLISHMENT, ORGANIZATION AND  
DEVELOPMENT OF A VALUE ANALYSIS  
PROGRAM WHICH HAS RESULTED IN  
CONSIDERABLE COST REDUCTIONS"

1952

FIRST VALUE ANALYSIS SEMINAR  
SCHEDULED IN NY

1953

FIRST BUSINESS DEPARTMENT VALUE  
ANALYSIS COMMITTEE ESTABLISHED AT  
THE LOCKHEED AND VAN RESEARCH  
CORPORATION, BOSTON, MA

1954

ON SITE SEMINARS STARTED

1955

FIRST SEMINAR TRAINEE GRADUATED



### THE CASE OF THE LITTLE PIN

THE TINY PIN HELD IN LARRY MILES' HAND MADE NEWS  
IN THE EARLY DAYS OF VALUE ANALYSIS. THE PART WAS  
USED IN QUANTITY FOR TELECHRON CLOCK MOTORS. IN  
SPITE OF STRONG EVIDENCE SUPPORTING ITS COST OF  
74, ANALYSIS WORK SET ITS VALUE AT ONLY 14. ANNUAL  
SAVINGS FOR TELECHRON WAS \$112,000.

GE TRAINING OF US NAVY PERSONNEL IN  
VA TECHNIQUES HELPED SECURE A \$20  
MILLION SHIP PROPULSION TURBINE  
ORDER AND RESULTED IN THE NAVY  
AWARDING ITS DISTINGUISHED PUBLIC  
SERVICE AWARD TO LARRY



### NAVY PRESENTATION

VALUE ANALYSIS WAS INTRODUCED TO THE NAVY IN 1961  
WHEN LARRY MILES WAS INVITED TO MAKE A PRESEN-  
TATION TO THE BUREAU OF NAVAL ENGINEERING  
AND CONSTRUCTION. ADMIRAL WILSON D. LESTER, CHIEF OF THE  
BUREAU, PRESENTED THE AWARD TO LARRY FOR HIS  
CONTRIBUTION TO THE NAVY'S VALUE ENGINEERING.

1960's

CREATIVE GE SALES PEOPLE SAW IN  
VALUE ANALYSIS A WAY TO BE OF  
ADDITIONAL BENEFIT TO CUSTOMERS  
AND THEREBY EARN ADDITIONAL  
ORDERS. TWO EXAMPLES:

1964

LARRY MILES RETIRED

1960's

VA USED INCREASINGLY TO REDUCE  
COMPETITIVE SHOCK IN THE MARKETPLACE

1961

MILES' BOOK "TECHNIQUES OF VALUE  
ANALYSIS AND ENGINEERING" PUBLISHED

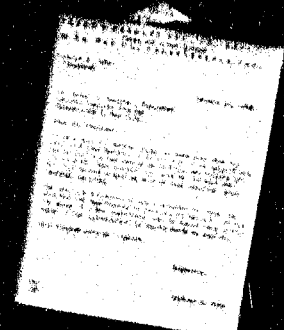
1959

MILES WORKED TO ESTABLISH  
THE SOCIETY OF AMERICAN  
VALUE ENGINEERS

LATE 1950's

GENERAL MANAGERS STARTED USING VA TO CURE  
LOST BUSINESS AND FALLING PROFITABILITY  
PROBLEMS CAUSED BY EXCESSIVE COSTS. EG.  
— AIR BLAST BREAKER COST REDUCED 40%  
— NEW VOLTAGE REGULATOR COST REDUCED 30%

GE'S JET PUMP MOTOR ORDERS FROM  
FLINT AND WALLING INCREASED FROM  
\$11,000 TO \$313,000 IN ONE YEAR AFTER  
GE INSTRUCTED F&W PERSONNEL IN  
APPLYING VA TECHNIQUES TO THEIR  
PRODUCTS



# INTERNATIONAL RECOGNITION OF MILES' WORK

## • JAPAN

"MILES AWARDS" GIVEN BY SOCIETY OF JAPANESE VALUE ENGINEERS TO COMPANIES AND PERSONS FOR OUTSTANDING VA WORK

## 'Value Engineering' Said More Popular in Japan

Larry D. Miles, founder of "value engineering," said Friday that his method has been much more widely accepted in Japan than in the United States.

"The top management of Japanese companies has learned it is value engineering," but he lowered it in the United States this is not true.

Value engineering is said to be a method by which manufacturers are forced to focus on the function of their product, and then to find creative approaches to restructuring production so as to lower costs and improve quality.

At a foreign press briefing in Tokyo, Miles begged his audience to pass on the good word to U.S. executives. He argued that many American managers are too unskilled and close-minded to adopt the value engineering method.

"In the other hand, he said that the Japanese have met with success because they have educated employees at all levels in value engineering, rather than limiting it to a small number of experts."

Atsuo Kikuma of the Society of Japanese Value Engineers, which heads annual on- and off-site seminars, pointed out that the method has been developed to a higher level in the United States, where it has enjoyed a brief use in Japan.

Nevertheless, Miles did manage to cog a few lines in which American firms have "saved millions" by using his method.

The Japan Times Newspaper  
Nov. 5, 1961

## • CANADA

McGILL UNIVERSITY INCLUDES VALUE ENGINEERING IN ITS CURRICULUM AND HOLDS WORKSHOPS FOR INDUSTRY

## • GERMANY

*Panel 3*

LARRY MILES AWARDED A MEDAL OF HONOR BY THE ASSOCIATION OF GERMAN ENGINEERS

"THANK YOU MR. MILES FOR THIS GREAT GIFT YOU HAVE GIVEN TO THE WORLD OF INDUSTRY"

• HIS BOOK HAS BEEN TRANSLATED INTO MANY LANGUAGES

## VALUE ENGINEERING TODAY IN G.E.

### AN EVOLUTIONARY PROCESS IN GE

MILES' VALUE ANALYSIS/  
VALUE ENGINEERING

VALUE CONTROL

VALUE PLANNING

VALUE MANAGEMENT

HAS LED TO

### CORPORATE ENGINEERING AND MANUFACTURING'S ENGINEERED PRODUCTIBILITY METHODOLOGY

- VALUE ENGINEERING TECHNIQUES ARE PART OF THE METHODOLOGY
- EMPHASIS IS ON QUALITY WITH THE ACCOMPANYING COST BENEFITS

STEPS IN THE E-P PROCESS

TARGETED AT

PRODUCTIVITY IMPROVEMENT THROUGH

HIGHER QUALITY  
HIGHER RELIABILITY  
LOWER COST

## THE MAN AND HIS IDEA

### VALUE ANALYSIS

"A philosophy implemented by the use of a specific set of techniques, a body of knowledge, and a group of learned skills. It is an organized creative approach which has as its purpose the efficient identification of unnecessary cost, i.e., cost which provides neither quality, nor use, nor appearance, nor customer features."

L. D. MILES

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"CALL IT VALUE ANALYSIS"

NICHOLAS DU CHEMIN, VP-MANUFACTURING  
"TRAIN 1000 MEN A YEAR"

*Have typed message from Panels  
For easier reading-*

LAWRENCE D. MILES  
FOUNDER OF VALUE ANALYSIS/VALUE ENGINEERING

HISTORICAL HIGHLIGHTS

1948

Value Analysis Program established with Larry as manager--Value Services.

1948-52

\$10 Million benefits reported

1950

GE's Charles A. Coffin Award presented to Larry "in recognition of his outstanding accomplishment through the establishment, organization and development of a value analysis program which has resulted in substantial cost reductions."

1952

First Value Analysis Seminar, Schenectady, NY.

1952

First business department Value Analysis component established at the locomotive and car equipment department, Erie, PA.

1953

On-site seminars started.

1956

2500th Seminar trainee graduated.

1950's

Creative GE sales people saw in Value Analysis a way to be of additional benefit to customers and thereby earn additional orders, two examples.

GE's jet pump motor orders from Flint and Walling increased from \$11,000 to \$313,000 in one year after GE instructed F&W personnel in applying VA techniques to their products.

LATE 1950's

General managers started using VA to cure lost business and falling profitability problems caused by excessive costs, EG.

--air blast breaker cost reduced 40%

--new voltage regulator cost reduced 30%.

1959

Miles worked to establish the Society of American Value Engineers.

1961

Miles' book "Techniques of Value Analysis and Engineering" published.

3  
1960's  
VA used increasingly to reduce competitive shock in the marketplace.

1964  
Larry Miles retired.

#### NAVY PRESENTATION

Value analysis was introduced to the Navy in 1953 when Larry Miles was invited to make a presentation to the Bureau of Ships. He is shown above with Rear Admiral Wilson D. Leggett, Chief of the Bureau. Result of the meeting was the establishment of the Navy's Value Engineering.

#### THE CASE OF THE LITTLE PIN

The tiny pin held in Larry Miles hand made news in the early days of Value Analysis. The part was used in quantity for Telechron Clock Motors. In spite of strong evidence supporting its cost of 3 3/4¢--analysis work set its value at only 1¢--annual savings for Telechron was \$112,000.

G.E. training of U. S. Navy Personnel in VA Techniques helped secure a \$20 Million Ship Propulsion Turbine order and resulted in the Navy awarding its DISTINGUISHED PUBLIC SERVICE AWARD to Larry.

Letter from Flint and Walling on next page.

COPY OF Letter --

Flint and Walling Mfg. Co. Inc.

Pumps and Water Systems

90 N. Oak St., Kendalville, Ind.

Richard C. Cole

President

Jan. 19, 1959

Mr. Ralph J. Cordiner, Pres.

General Electric Co.

Schenectady 5, N.Y.

Dear Mr. Cordiner:

It is a far better thing you have done than has ever been done before. I do not wish to be enigmatical, but to tell you how keenly we at Flint and Walling appreciate the fine seminar that your Mr. Ed Bush and Mr. Paul Binder helped us hold on your sterling Value Analysis program.

The sterling presentation was a stimulus to everyone that had the opportunity to participate therein- it was the spark of a new department that is functioning gratifyingly- our appreciation is beyond words to express .

With kindest personal regards,

Sincerely,

Richard C. Cole

RCC/AHF



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## INTERNATIONAL RECOGNITION OF MILES' WORK

### \*JAPAN

"Miles Awards" given by Society of Japanese Value Engineers to companies and persons for outstanding VA work

### \*CANADA

McGill University includes Value Engineering in its curriculum and holds workshops for industry.

### \*GERMANY

Larry Miles awarded a Medal of Honor by the Association of German Engineers.

"Thank you Mr. Miles for this great gift you have given to the world of industry".

### \* HIS BOOK HAS BEEN TRANSLATED INTO MANY LANGUAGES

#### "VALUE ENGINEERING SAID MORE POPULAR IN JAPAN

Larry D. Miles, founder of 'value engineering' said Friday that his method has been much more widely accepted in Japan than in the United States.

"The top management of Japanese companies has learned of (value engineering)," but, he lamented, "in the United States this is not true."

Value engineering, in short is a method by which manufacturers are forced to focus on the function of their product, and then to find creative approaches to restructuring production so as to lower costs and improve quality.

At a foreign press briefing in Tokyo. Miles begged his audience to pass on the good word to U.S. executives. He argued that many American managers are too shortsighted and close-minded to adopt the value engineering method.

On the other hand, he said that the Japanese have met with success because they have educated employees at all levels in value engineering, rather than limiting it to a small number of experts.

Akira Kodama of the Society of Japanese Value Engineers, which boasts almost 400 corporate members, pointed out that the method has been developed to a higher level in the United States, while it has enjoyed wider use in Japan.

Nevertheless, Miles did manage to cite a few cases in which American firms have "saved millions" by using his method.

The Japan Times Newspaper  
Nov. 5, 1983