SHIP PRODUCTION COMMITTEE
FACILITIES AND ENVIRONMENTAL EFFECTS
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WELDING
INDUSTRIAL ENGINEERING
EDUCATION AND TRAINING

September 1985
NSRP 0226

THE NATIONAL SHIPBUILDING RESEARCH PROGRAM

1985 Ship Production Symposium
Volume II
Paper No. 13:
The Certificate in Manufacturing Engineering: Ship Production -A New Program for Shipyard Employee Self-Instruction

U.S. DEPARTMENT OF THE NAVY
CARDEROCK DIVISION,
NAVAL SURFACE WARFARE CENTER

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
SEP 1985	**N/A**	**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
The National Shipbuilding Research Program 1985 Ship Production Symposium Volume II Paper No. 13: The Certificate in Manufacturing Engineering: Ship Production -A New Program for Shipyard Employee Self-Instruction	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Naval Surface Warfare Center CD Code 2230-Design Integration Tools Building 192 Room 128 9500 MacArthur Bldg Bethesda, MD 20817-5700**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**SAR**	**9**	

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THE CERTIFICATE IN MANUFACTURING ENGINEERING - SHIP PRODUCTION: A NEW PROGRAM FOR SHIPYARD EMPLOYEE SELF-INSTRUCTION

By

William D. McLean

Administrator
Manufacturing Engineering Certification Institute
Society of Manufacturing Engineers

ABSTRACT

The Manufacturing Engineering Certification Institute (MECI) of the Society of Manufacturing Engineers (SME), offers a peer recognition program for individuals involved within the many facets of manufacturing engineering and technology related career areas. The MECI certification program was developed in 1972 to provide manufacturing personnel with the means to document specific areas of expertise, to encourage continuing education, and to foster professional development.

Currently there are over 11,500 actively certified individuals in the MECI program of which about 1,000 are added annually.

In 1986, a new certification specialty in Ship Production will be added to those currently available to an individual applying for recognition as a Certified Manufacturing Engineer. This new area, developed under the direction of Professor Howard Bunch,. of the University of Michigan Transportation Research Institute, and MECI, will be offered to all qualified applicants beginning with the December, 1986 examination cycle. The purpose of this session is to introduce you to the new ship production speciality within the SME/MECI certification program, and to answer any questions you may have.

MECI Ship Production Certification

In 1372, the Manufacturing Engineering Certification Institute (MECI) was organized to provide manufacturing personnel with a means to document specific areas of expertise, to encourage continuing education, and to foster professional development.

Today, the Institute manages the Certification programs of the Society of Manufacturing Engineers (SME), and it's associations, the Association for Finishing Processes (AFP/SME), the Computer and Automated Systems Association (CASA/SME), Robotics International (RI/SME), and the Machine Vision Association (MVA/SME).

The institute also assists certification candidates by offering formal refresher courses in engineering fundamentals and provides various study materials related to the examinations. MECI also establishes examination sites, administers and grades the certification exams, and grants the appropriate certification title. In addition to initial certification, MECI provides a means for continued professional growth through periodic recertification. Thus, by qualifying for MECI certification, candidates can measure, document and are encouraged to update their technical knowledge.

During.the past 13 years, over 20,000 people have applied to become certified by MECI. In calendar year 1384 alone, 1,662 people wrote the examinations leading to MECI certification. These figures are representative of the last few years which shows a steadily increasing interest in the MECI program.

Since 1972, MECI certification has seen many changes. Some of these include:

We have gone from one level of certification to two, the Certified Manufacturing Engineer and the Certified Manufacturing Technologist. Now we can offer recognition to a person with as little as two years experience and/or education, as well as to the individual with a life time of knowledge.

We now offer recognition in four technologist areas and over 17 engineering specialty areas. Technologist specialty areas include finishing, robotics, and computer systems as well as the standard metal working SME area. Our engineering level has also been expanded to include robotics, computer integrated manufacturing and finishing, as well as manufacturing management, general manufacturing, and tool engineering.

In the first few years of the examinations, under 100 applicants per year completed the exams at a few selected sites. Today, over 1,600 applicants per year, sign up for the examinations, which are currently offered at over 150 examination sites, twice a year.

Beginning in 1984, and continuing today, there is an increasing emphasis upon the educational experience that MECI can offer to the employer as well as to the employee. We are now working with various companies, using MECI certification to some degree, within their in-house continuing education and recognition programs.

Today, we are pleased to announce that the newest SME certification specialty in ship production, will now be included as an area of

certification within the SME/MECI program. The new ship production specialty, will only be available at the certified manufacturing engineer level. This means that an individual must have a minimum of 10 years education and/or experience in manufacturing engineering, technology or related position. In addition to the education/experience, the applicant must also successfully complete two certification examinations. The first exam will be engineering fundamentals, covering the broad topics of engineering to include: mathematics, physics, engineering drawing,.. statics and strengths of materials, metallurgy, etc. The second, or specialty exam will deal specifically with ship production. The content of this exam will be decided by the examination development committee. In addition to the examination, a study guide will also be developed by the examination authors. The purpose of the study guide will be to assist the applicants in preparing for the MECI ship production certification exam.

The target date for offering this new examination is December of 1986. In order to accomplish this, the study guide must be completed by June of 1386 and the exam shortly thereafter. Applicants may then schedule the ship production exam during any one of two testing cycles, the first Saturday in December and the second Saturday in May. Applications must be sent to MECI approximately GO days previous to the examination date. This will allow us to arrange an examination site within a few miles of the applicants home. Examination sites are arranged through the network of SME chapters, located throughout the world, almost assuring applicants that the exam will be taken within 50 miles of their home. This large

and growing network can only be offered by MECI and SME.

Once-initial ship production certification is granted by MECI/SME, certification must be maintained through a process called recertification. Recertification addresses the question of continuing education and life long learning. Every three years the certified individual must submit a minimum of 36 clock hours of professional development activities. Recertification encourages the certified individual to become involved in an educational program that will help to maintain their expertise; If this is not accomplished, their certification is dropped and can only be renewed through reapplication and reexamination. The recertification program assists the certified individual in maintaining their level of proficiency and provides evidence of other educational activities. A print out, or registry, is containing Education available to all MECI certified people, which display the [redacted] they have submitted for recertification.

This new ship production program will be administered in the identical way that al.1 other MECI specilaty certifications are. Ship production will be included as part of our regular SME specialty areas. Applicants will fill out the appropriate application and submit it, with the appropriate fee, to MECI and be placed in an examination site close to their home. Upon successful examination passage, the newly certified individual will be recognized by SME as a certified manufacturing eng'ineer in ship production.

Each certified individual will be issued an ID card and a wall certificate which notes their MECI recognition. All people will have a

certification number unique to the ship production area, which will allow us to keep track of the results of this new program.

We, at SME and MECI, are looking forward to offering the new specialty in ship production. Not only do we offer a fine program to you, those individuals involved in ship manufacturing, but this also gives us a chance to broaden and expand our scope to include a major manufacturing area. We, at SME, are confident that the new venture between SME and the ship producers will be a very fruitful program for all involved.