



Machinist's Mates (Nuclear) are involved in the supervision, operation, maintenance and administration of naval nuclear propulsion plants and associated equipment. They have a thorough understanding of reactor, electrical and mechanical theory involved in the operation of the nuclear reactor, steam plant, propulsion plant and auxiliary equipment. Some (ELTs, LELTs) possess a detailed knowledge of reactor and steam plant chemistry and radiological controls. They operate and perform maintenance on reactor and propulsion mechanical systems, steam systems and supporting equipment and systems.

YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE 4 YR AVG	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/ SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
26-30	MMNCM	19 Yrs	CSEL	36	4th Shore Tour Billet: CSEL/Plant Master Chief/ Staff Inst./Maint. Sup. Duty: NPTU/NFAS/NPS/IMA/Staff. Qualification: NEC N15S/N16S/N25S/N26S, N31Z/N32Z, N33Z
24-25	MMNCM	19 Yrs	CSEL	40	4th Sea Tour Billet: CSEL/Dep. LCPO/EDMC/RDMC. Duty: SSN/SSBN/SSGN {N15S/N16S}/CVN {N25S/N26S}. Qualification: NEC N15S/N16S/N25S/N26S, N31Z/N32Z, N33Z
21-23	MMNCM	19 Yrs	CSEL	36	3rd Shore Tour Billet: Inst./Maint. Sup./Staff/Recruiter. Duty: NPTU/NFAS/NPS/IMA/Staff/Recruiting. Qualification: NEC N15S/N16S/N25S/N26S, N31Z/N32Z, N33Z
18-20	MMNCM MMNCS	19 Yrs 15 Yr	CSEL	40	3rd Sea Tour Billet: Dep. LCPO/EDMC/Div. LCPO. Duty: SSN/SSBN/SSGN {N15S/N16S}/CVN {N25S/N26S}. Qualification: NEC N15S/N16S/N25S/N26S, N31Z/N32Z, N33Z
14-17	MMNCS	15 Yrs	LDO, CSEL	36	2nd Shore Tour Billet: Inst./Ship and Component Main Tech./ Staff/Recruiter. Duty: NPTU/NFAS/NPS/IMA/Staff/Recruiting. Qualification: NEC N15S/N16S/N25S/N26S, N32Z, N33Z
10-13	MMNC	11 Yrs	LDO	40	2nd Sea Tour Billet: Division LPO/Asst. LPO/Division LCPO. Duty: SSN/SSBN/SSGN {N15S/N16S}/CVN {N25S/N26S}. Qualification: NEC N15S/N16S/N25S/N26S, N32Z, N33Z
7-9	MMN1	6 Yrs	STA-21(N), LDO	36	1st Shore Tour Billet: Instr./Maint Tech/Recruiter. Duty: NPTU/NFAS/NPS/IMA/Recruiting/RDC. Qualification: NEC N15S/N16S/N25S/N26S
3-6	MMN1 MMN2	6 Yrs 3 Yrs	STA-21(N), USNA	48	1st Sea Tour Billet: Steam/Reactor Plant Operator/Maint. Tech. Duty: SSN/SSBN/SSGN {N15O/N16O}/CVN {N25O/N26O}. Qualification: Senior in Rate/Warfare Qual Supervisor NEC N15S/N16S/N25S/N26S





1-2	MMN3	14 wks "A"	STA-21(N), USNA	N/A	Recruit/Apprenticeship Training (up to 82 weeks)
	Accession	School			Duty: RTC/NFAS/NPS/NPTU.
	Training	Completion			(Some will have 24-month Junior Staff Instructor
		_			tour at NPTU).
					Qualification: NEC N91T

#### Notes:

- 1. MMNs are rarely detailed outside the nuclear community.
- 2. The nuclear community values sustained, superior performance at sea in a leadership role (Leading Petty Officer (LPO), Leading First, etc.) and on shore duty (e.g. training, maintenance, recruiting, Recruit Division Commander, etc.).
- 3. Variety of experience and success in various positions are beneficial to our future leadership positions. Those assigned to Forward Deployed Naval Forces (FDNF) and Courier Positions are specially screened.

### Candidates for advancement from E6 to E7 for MMNSS are:

- a. FULLY QUALIFIED if:
  - 1) They possess a supervisor NEC (N15S/N16S) AND
  - 2) Previously or currently qualified Engineering Watch Supervisor or Propulsion Plant Watch Supervisor as evidenced by holding the N33Z NEC.
  - 3) N16S have obtained the Leading Engineering Laboratory Technician (LELT) qualification.
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND:
  - Served as LPO, Assistant LPO, Leading First, LELT, or Engineering Department Training Assistant for 12 or more months OR
  - 2) Have a history of sustained superior performance defined as a majority of their Individual Trait Averages ABOVE Reporting Senior Cumulative Average.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to CPO. Per reference BUPERSINST 1430.16, members who have a special category NEC (N59X for submarines) are also not eligible for selection to CPO.
- d. AMPLIFYING INFORMATION:
  - 1) Few may qualify as Training Engineering Officer of the Watch (T-EOOW) or EOOW Training Assistant (ETA) at a Nuclear Power Training Unit (NPTU), which is normally stood by a commissioned officer. T-EOOW and ETA require significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.
  - 2) For N15S/N16S, few may qualify as Chief of the Watch (COW), Diving Officer of the Watch (DOOW), or Pilot (Virginia Class), but these non-nuclear qualifications are not a prerequisite for advancement.
  - 3) Few may qualify as Radiological Controls Shift Supervisor (RCSS) on a Submarine Tender. RCSS requires significant leadership ability and technical knowledge.

#### Candidates for advancement from E7 to E8 for MMNSS are:

- a. FULLY QUALIFIED if:
  - 1) They meet the FULLY QUALIFIED and BEST QUALIFIED standards for advancement from E6 to E7.
  - 2) NEC N15S/N16S have obtained the Engineering Department Master Chief (EDMC) qualification (NEC N32Z).
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND
  - 1) NEC N15S/N16S are serving or served as LELT or Leading Chief Petty Officer (LCPO) on a submarine OR Leading Crew Chief (LCC) at an NPTU for 12 months or more.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to SCPO. Per BUPERSINST 1430.16, members who have a special category NEC (N59X for submarines) are not eligible for selection to SCPO.
- d. AMPLIFYING INFORMATION:
  - 1) For N15S/N16S, few may qualify as Chief of the Watch (COW), Diving Officer of the Watch (DOOW), or Pilot (Virginia Class), but these non-nuclear qualifications are not a prerequisite for advancement.





2) Few may qualify as T-EOOW or EOOW Training Assistant (ETA) at NPTU, which is normally stood by a commissioned officer. T-EOOW require significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.

#### Candidates for advancement from E8 to E9 for MMNSS are:

- a. FULLY QUALIFIED if:
  - 1) They meet the FULLY QUALIFIED and BEST QUALIFIED standards for advancement from E7 to E8.
  - 2) NEC N15S/N16S are serving or served as EDMC.
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND
  - 1) Have served as an EDMC for 12 months or more.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to MCPO. Per BUPERSINST 1430.16, members who have a special category NEC (N59X for submarines) are not eligible for selection to MCPO.
- d. AMPLIFYING INFORMATION:
  - For N15S/N16S, few may qualify as Chief of the Watch (COW), Diving Officer of the Watch (DOOW), or Pilot (Virginia Class), but these non-nuclear qualifications are not a prerequisite for advancement.
  - 2) Few may qualify as T-EOOW or EOOW Training Assistant (ETA) at NPTU, which is normally stood by a commissioned officer. T-EOOW and ETA require significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.

### Candidates for advancement from E6 to E7 for MMNSW are:

- a. FULLY QUALIFIED if:
  - 1) They possess a supervisor NEC (N25S/N26S) AND
  - 2) Previously or currently qualified Engineering Watch Supervisor or Propulsion Plant Watch Supervisor as evidenced by holding the N33Z NEC.
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND:
  - 1) Served as LPO, Assistant LPO, Leading First, or LELT for 12 or more months OR
  - 2) Have a history of sustained superior performance defined as a majority of their Individual Trait Averages ABOVE Reporting Senior Cumulative Average.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to CPO. Per reference BUPERSINST 1430.16, members who have a special category NEC (N89X for surface) are also not eligible for selection to CPO.
- d. AMPLIFYING INFORMATION:
  - 1) Few may qualify as Training Engineering Officer of the Watch (T-EOOW) or EOOW Training Assistant (ETA) at a Nuclear Power Training Unit (NPTU), which is normally stood by a commissioned officer. T-EOOW and ETA requires significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.
  - 2) Few may qualify as Radiological Controls Shift Supervisor (RCSS) on a Submarine Tender. RCSS requires significant leadership ability and technical knowledge.

### Candidates for advancement from E7 to E8 MMNSW are:

- a. FULLY QUALIFIED if:
  - 1) They meet the FULLY QUALIFIED standards for advancement from E6 to E7.
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND
  - 3) Are serving or served as Reactor Auxiliary, Reactor Laboratory, Reactor Mechanical, Reactor Propulsion, or Reactor Networks CPO or LCPO on an aircraft carrier OR LCC at an NPTU for 12 months or more.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to SCPO. Per BUPERSINST 1430.16, members who have a special category NEC (N89X for surface) are not eligible for selection to SCPO.
- d. AMPLIFYING INFORMATION:





- 1) Few may qualify as Propulsion Plant Watch Officer (PPWO), which is normally stood by a commissioned officer. PPWO requires significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.
- 2) Few may qualify as T-EOOW or EOOW Training Assistant (ETA) at NPTU, which is normally stood by a commissioned officer. T-EOOW and ETA require significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.

#### Candidates for advancement from E8 to E9 MMNSW are:

- a. FULLY QUALIFIED if:
  - 1) They meet the FULLY QUALIFIED standards for advancement from E7 to E8.
  - 2) Have obtained the Reactor Department Master Chief (RDMC) qualification (NEC N31Z).
  - 3) Have served as Divisional LCPO (Reactor Mechanical, Reactor Electrical, Reactor Controls, Reactor Propulsion, or Reactor Laboratories) or Reactor Training Division Officer on an aircraft carrier OR Staff Training Group LCPO or LCC at NPTU.
- b. BEST QUALIFIED if they meet the FULLY QUALIFIED standard AND
  - 1) Have served as Divisional LCPO or Reactor Training Division Officer on an aircraft carrier OR Staff Training Group LCPO or LCC at NPTU for 12 months or more.
- c. NOT ELIGIBLE: Per BUPERSINST 1430.16, members participating in a commissioning program (STA-21 Nuclear/Core) are not eligible for advancement to MCPO. Per BUPERSINST 1430.16, members who have a special category NEC (N89X for surface) are not eligible for selection to MCPO.
- d. AMPLIFYING INFORMATION:
  - 1) Few may qualify as PPWO, which is normally stood by a commissioned officer. PPWO requires significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.
  - 2) Few may qualify as T-EOOW or EOOW Training Assistant (ETA) at NPTU, which is normally stood by a commissioned officer. T-EOOW and ETA require significant leadership ability and in-depth understanding of reactor plant operations. Only the best complete this qualification.