



MANAGEMENT SYSTEM MANUAL

ARM-6.2 R/V ARMSTRONG NEW CREW ORIENTATION

Originator:	Approved By:
Kent Sheasley	Timothy Twomey

1. Purpose

The purpose of this procedure is to set forth the familiarization of a new crewmember to the R/V Armstrong as is required in 46 CFR 15.1105.

Every new crewmember that comes on board a vessel operated by Woods Hole Oceanographic Institution (WHOI) is required by the Standards of Training, Certification and Watchkeeping (STCW) to receive an orientation.

2. Responsibility

It is the responsibility of the Master of R/V Armstrong to ensure that every new crewmember that comes on board has received adequate familiarization of the vessel prior to the vessel departing. In order to accomplish this task, it is the responsibility of the mate on watch or his/her designee to familiarize the new crewmember using the attached orientation checklist. If this is delayed due to operational commitments, the mate on watch will inform the on-coming mate on watch of the need to conduct this orientation when time allows.

3. General

It is important that each crewmember be adequately prepared to assume his/her functions on the vessel prior to the vessel getting underway. To accomplish this goal, each new crewmember reporting aboard the R/V Armstrong shall become familiar with the vessel per the attached orientation checklist.

The new crewmember orientation is most effective if conducted as soon as the individual has stowed his/her personal gear. Often operational commitments may delay this orientation. If the orientation is not conducted the day that the new crewmember comes on board, the requirement to conduct the orientation will be passed on to the next mate on watch. It shall then be conducted as soon as practicable.

A new crewmember is one that has never sailed on the R/V Armstrong.

4. Reporting

Upon completion of the orientation checklist, located in SMM Volume 1, chapter 6.2, it shall be given to the Master. The Master will then enter the fact that the orientation has been completed into the crewmember's personnel file in NS5.

When the entry is made in NS5, the orientation checklist does not need to be retained.



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5. Job Safety Analysis for Non-Standard Jobs

The following pages are a list of activities, their hazards and the methods to mitigate their hazard for non-standard jobs. The job safety analysis for standard jobs is included in their description in NS5.



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JOB SAFETY ANALYSIS (JSA)

Activity	Hazard	Mitigation
Taking reading	Rotating machinery Slip/trip/fall, burn hazard	Remove loose clothing, tie back long hair, be aware of surroundings, use flashlight at night/in dark spaces,
Opening SW valves	Flooding, shock, body strain	Secure valves, lockout/tag out, advise watch standers, use proper lifting techniques
Opening strainer	Flooding, back strain, pinch/crush injuries,	Advise watch standers, open slowly, ensure holding, make sure valves are lined up properly, have replacement equipment ready
Using chemicals (painting, cleaning, degreasing, loading)	Exposure to people (eye, skin, respiratory damage), Exposure to environment (spills entering ocean, fumes entering atmosphere)	Read MSDs and hazard evaluation, wear proper PPE, provide adequate ventilation, operate in a clean work area, remove trip hazards, dispose of used chemicals properly.
Securing/Removing unit	Unintended discharge, unintended start, pinch points/crushing/cuts, damage to equipment	Lockout/Tag out, talk with those involved before starting, isolate equipment, advise watch standers, be aware of surroundings
Complete replacement	Unintended discharge, body strain, replacing it wrong	Leak test system, advise watch standers, use proper lifting techniques, double check work before start
Drain oil/dispose of oil	Personnel exposure (skin/eye contact, respiratory damage) Environmental exposure (spill entering bilge/ocean, improper disposal of waste oil), slip/trip/fall	Read MSDs, wear proper PPE (safety glasses, gloves, boots) provide adequate ventilation, dispose of waste oil in proper containers, have diapers and containment vessels on hand
Change filters	Pollution, pinch points/crushing/cuts, unintended discharge, damage to equipment	Prepare all tools before job, have diapers/containment vessels on hand, wear proper PPE (safety glasses/gloves/ steel toes), dispose of waste oil in proper container
Open access	Slip/trip/fall	Guard access, rope off area, post signs, refasten deck plates when done



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Tank entry/inspect tank/exit	Asphyxiation, hazardous vapors, restricted space (limited work/rescue area), slip/trip/fall	Follow proper confined space entry procedure, ventilate space, check space before entry with oxygen/vapor meter, wear proper PPE (respirator, steel toes, fall harness), have rescue equipment and personnel standing by.
Greasing	Pollution, pinch/crush injuries, slip/trip/fall, unintended start	Wipe up excess grease, lockout/tag out equipment to prevent accidental start,
Exercise valves	Spills, cross contamination, unintended supply disrupt	Advise watch standers, double check that it's the correct valve,
Operational test	Unintended interrupt, wrong valves open, cross-contamination	Notify watch standers (and other crew/science, depending on location of unit), double check valve line up
Inspect connection/Megger	Shock	Lockout/ tag out
Working at heights	Fall from height, dropping tools, fall overboard	Wear climbing harness, advise watch standers, put lanyards on tools, have personnel standing by
Weights overhead	Pinch/Crush injuries, damage to equipment	Wear PPE, esp. hard hats and steel toes, do not walk under loads
Work on heavy equipment	Foot/back injuries, damage to equipment if improperly supported, slip/trip/fall, pinch/crush ect	Wear proper PPE (steel toed boots, gloves), use proper lifting techniques, plan out the job, keep work area clear of trip hazards, awareness of surroundings
Test relief valve	Eye hazard by debris, burn,	Wear PPE (safety glasses), test in controlled environment
Run equipment	Noise, pinch/crush hazard, unintended stop/interruption, burn risk, untrained operator	Wear PPE (hearing protection, safety glasses, steel toes), be aware of surroundings and what will start moving, advise watch standers
Test equipment	Unintended shutdown, pinch/crush hazard, burn hazard	Advise watch standers, be aware of surroundings, talk through test beforehand
Move unit	Back injury, foot injury, risk of drop (damage unit or surrounding equipment), pinch/crush	Wear PPE (gloves, steel toes), make a plan with those involved, awareness of surroundings, proper lifting techniques or rig mechanical advantage, remove trip hazards from path