

"Cost to Workers: ZERO. Benefit: LIFETIME"
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**Till Date** 

**766**Training Sessions

11,730 Workers Trained

**69**Topics Covered





# SAFE BLOCK HANDLING AND CLEANING PROCESS

Every vessel arriving for recycling carries more than steel and machinery. Inside its structure lie residues of oil, chemicals, and waste that can become hazardous when the vessel is dismantled. During the cutting process, large sections of the ship known as blocks are separated for further handling. Safe block handling and cleaning form the foundation of every ship recycling operation. When carried out with precision and care, these steps protect workers, equipment, and the environment. When ignored, they can lead to fires, spills, and serious injury.

Dr. Anand Hiremath, CEO of the Sustainable Ship and Offshore Recycling Program (SSORP), explains:



"The success of ship recycling depends on how safely we manage each block. Before a torch touches metal, the block must be inspected, cleaned, and declared safe. This process saves lives and protects the environment."

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#### UNDERSTANDING THE IMPORTANCE

Every cut in the ship recycling yard is planned and executed to separate heavy steel blocks that can weigh several tons. These blocks are categorized into three types: clean, dirty, and oily. Each classification requires different handling, equipment, and supervision.

- Clean Blocks are free from oil or debris.
- Dirty Blocks contain solid waste such as insulation, paint flakes, or wood.
- Oily Blocks are contaminated with oil, sludge, or hydrocarbon residues.

A single mistake in classification can lead to major consequences. If a block containing oil is treated as clean, hot work can ignite trapped vapors.





Mr. Rahul Singh, SSORP Coordinator in Alang, notes:



"The first step in safe block handling is proper identification. Every block is inspected by the HSE team before cutting begins. Classification helps workers decide what precautions to take and how to clean the section safely."

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#### PLANNING BEFORE CUTTING

Planning determines whether an operation runs smoothly or becomes an emergency. Before any cutting starts, the HSE team and Mukadams meet to review the sequence and potential hazards. The team checks for oil residues, confined spaces, and the condition of cutting equipment.

#### Planning Essentials

- Conduct a risk assessment for each section.
- Confirm equipment certification for cranes and cutting torches.
- Establish clear hand signals between crane operator and ground team.
- Remove unnecessary personnel from the cutting area.
- Issue work permits for hot work, confined spaces, and working at height, respectively, as per requirements.



"When the plan is clear, every person knows what to do. We start each job with a briefing so no one has to guess what comes next,"

says Arjun Patel, Supervisor, Alang.







#### SAFE HANDLING OF CLEAN BLOCKS

Even blocks classified as clean can pose serious risks. Poor lifting, weak communication, or unstable placement can cause accidents. The work must follow a step-by-step procedure.

**Pre-cutting phase**: Inspect the area to confirm it is free of oil and waste. Barricade the zone and display warning boards.

**Cutting phase:** The cutter follows the planned line using a long-handled torch to control the final cut. Fire watch personnel remain on standby with extinguishers and sand buckets.

**Pre-lifting phase:** Blocks are prepared according to the lifting capacities of the heavy cranes available in the yard. Appropriate hooks with locks, slings, D-shackles, and lifting methods are determined based on the geometry of the blocks.

**Lifting phase:** The Mukadam supervises the attachment of slings or lifting eyes. The crane operator maintains visual contact with the banksman. All movements are slow and coordinated.

**Post-lifting:** The area is rechecked for leaks or debris. Any oily residue discovered must be reported and the block reclassified as oily before further work.



Mr. Zamil Uddin, SSORP Coordinator in Bangladesh, emphasizes: "Clean steel can still cause harm if handled carelessly. Blocks can slip, swing, or tilt. The most basic rule is clear communication. A single wrong signal can cost a life."

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#### MANAGING OILY BLOCKS

Oily blocks are among the most hazardous components of ship recycling. They often come from engine rooms, fuel tanks, or pump areas where oil and gas residues remain. These residues can catch fire instantly during hot work.





The SSORP training outlines a systematic cleaning process.

- 1. **Identification:** HSE marks oily sections clearly with color codes or spray paint.
- 2. **Planning:** The team conducts a toolbox talk to review hazards and PPE requirements.
- 3. **Pre-inspection:** Gas meters check for vapors before cleaning begins.
- 4. **Preparations:** Cutting lines are thoroughly cleaned, and pipelines are detached using cold-cutting methods. The open ends of the pipelines are then plugged to prevent dripping or accidental spillages.
- 5. **Washing:** Workers use high-pressure water jets or manual scrubbing to remove oil. All residues are collected in containment systems.
- 6. **Inspection:** Blocks are re-inspected to confirm their cleanliness, and the findings are recorded. Once confirmed clean, only then is hot work permitted on the blocks.

Muhammad Usman, SSORP Coordinator in Pakistan, explains:



"Cleaning oily blocks requires patience and proper technique. Workers must understand how to handle cleaning agents and control waste. Every drop of oily water must be collected, never released on the ground."

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# **Critical Safety Rule**

Hot work on oily blocks is strictly prohibited until the HSE team confirms that cleaning and gas testing are complete.







### PERSONAL PROTECTIVE EQUIPMENT

PPE remains the final safeguard between workers and workplace hazards. All personnel handling blocks must wear complete protective gear suited to their task.

Mandatory equipment includes:

- Safety helmet with chin strap
- Respiratory masks with vapor cartridge
- Face shield and goggles
- Oil/Chemical-resistant gloves
- Steel-toed, slip-resistant gum boots
- Boiler suit or coverall
- Oil/Chemical-resistant Suit
- Safety harness when working at height

Fire watch and spill response teams must stay ready during all cleaning and cutting operations.







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# Mr. Rahul Singh remarks:

"We have seen that the consistent use of PPE reduces injuries significantly. A helmet or glove may seem small, but it can prevent permanent harm."

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# TEAMWORK AND SUPERVISION

Block handling is a coordinated effort. The crane operator, cutter, Mukadam, and HSE personnel must act as one team. Communication is the most important safety tool.

"We used to depend only on hand gestures," says Mohammad Karim, Cutter, Gadani. "Now we have clear radio calls and stop signals. Everyone knows what each signal means, and no one moves until the area is clear."





"Discipline keeps people alive. Procedures exist to protect workers. When every person follows them, accidents become rare."

## **ENVIRONMENTAL RESPONSIBILITY**

Safe block handling is also about environmental protection. Oil spills and chemical leaks can contaminate soil and groundwater if not managed correctly. SSORP promotes a Zero Discharge Policy to ensure that all waste is contained and treated responsibly.



#### **Environmental Protection Measures**

- No discharge of oily water or sludge on open ground.
- Use impermeable floors and containment trays in cleaning areas.
- Label all waste containers with contents and date.
- Dispose of waste only through authorized handlers such as GEPIL.

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"We have changed how we clean oily blocks," says Zahir Ahmed, HSE Officer, Chittagong. "Previously, we did not have a dedicated oily block cleaning area with a pressure jet and an impervious floor with a drainage system to collect all oily water after cleaning. Now, we have proper drainage, collection tanks, and an in-house oily water treatment system. The area stays clean, and workers feel safer."







# **EMERGENCY PREPAREDNESS**

Even the most careful work can face unexpected events. Every worker must know what to do during a spill, fire, or gas alert.

# Response steps include:

- Stop work immediately and inform the HSE team.
- For oil spills, use oil booms, sand or absorbents to contain spread.
- For fire, use foam or dry powder extinguishers. Never use water on oil fires.
- Evacuate if the fire spreads or gas levels rise.
- Report all incidents and near misses immediately.





# Mr. Amrish Pandey, SSORP Coordinator in Alang, stresses:

"A quick and calm response makes all the difference. Training prepares workers to act without panic. Practicing these drills helps them react correctly when it truly matters."

# FROM TRAINING TO PRACTICE

SSORP's goal is not only to teach procedures but to make them a part of daily behavior. Trainers conduct sessions directly at yard sites, where workers can see real examples and perform tasks under supervision.

"Before training, we thought cleaning was just washing," says Rahman Khan, Worker, Gadani. "Now we know it includes gas testing, containment, and inspection. We follow each step before cutting starts."

"Earlier, we used to begin cutting quickly," adds Shafiqul Islam, Worker, Chittagong. "Now, we wait for HSE clearance. It has become normal for us to double-check."

# DOCUMENTATION AND ACCOUNTABILITY

Record keeping is an essential part of safe block handling. Documentation shows that each stage of inspection, cleaning, and disposal has been completed correctly.

Important records include:

- Cleanliness inspection checklists
- Permits for cleaning and cutting
- Waste disposal logs
- Toolbox meeting minutes
- Block status registers
- Incident and near-miss reports

#### Mr. Zamil Uddin explains:

"Documentation helps identify weak points and maintain transparency. When records are clear, we can see what worked well and what needs improvement."







# **BUILDING SAFETY CULTURE**

Safety culture grows when everyone in the yard takes responsibility. Managers and supervisors set the tone through their own behavior.

Muhammad Usman highlights this:

"When supervisors wear PPE and follow permits, workers do the same. Leadership by example builds trust and discipline faster than rules alone."

Managers are also encouraged to recognize teams that maintain high safety standards. Public acknowledgment reinforces good practices and motivates others to follow

# **OPERATIONAL SAFETY GUIDELINES**

- 1. Identify block type before cutting. Never assume cleanliness without inspection.
- 2. Always obtain HSE clearance. Hot work is not allowed until testing and cleaning are complete.
- 3. Wear full PPE. It is the simplest and most effective protection.
- 4. Maintain communication. Use signals or radios during all lifting and cutting operations.





- 5. Manage waste responsibly. Dispose of all oily residues through authorized handlers.
- 6. Keep records updated. Every permit and inspection adds to safety assurance.
- 7. Support teamwork. Coordination between workers, supervisors, and crane operators prevents accidents.
- 8. Practice emergency drills. Preparedness saves lives.

"After SSORP training, our yard started using containment trays for oily waste. It made a big difference."

- Sajid Ali, Supervisor, Gadani

"We feel proud when visitors see how clean our work area is. It shows that training, brings real results.

-Vikram Solanki, Worker, Alang

"The high-pressure jet cleaning saves time and keeps us safe from exposure."

- Rashid Ahmed, Worker, Chittagong

# CREATING LONG-TERM CHANGE

The goal of the SSORP program is to ensure that safety is not a one-time effort but a lasting habit. Consistent application of safe block handling procedures leads to fewer accidents, cleaner yards, and higher worker confidence.



Dr. Anand Hiremath concludes with a message for all recycling yards:

"Safe block handling protects both people and nature. When every worker checks, cleans, and communicates before cutting, the risk disappears. Safety is not only about avoiding accidents; it is about working responsibly every single day."









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"Safety grows stronger when every hand works with care."

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# ROUND-UP OF MONTHLY TRAINING ACTIVITIES – SAFE BLOCK HANDLING AND CLEANING PROCESS

Country	Training No.	Yard	Course Date	No. of Trainees
	753	MAK Corporation	04.10.2025	22
	754	BOB Recyclers	06.10.2025	9
	757	Asadi Steel Enterprise	12.10.2025	30
Bangladesh	761	Janata Steels Ltd.	16.10.2025	25
	763	Z. H. Steel Ltd.	19.10.2025	9
India	755	Khushboo India Pvt. Ltd.	06-10-2025	14
	756	J.K. Industries	09-10-2025	17
	758	Amee Green Ship Recycling Pvt. Ltd.	14-10-2025	8
	759	Inducto Steel Ltd.	14-10-2025	10
	760	Shree Ram Vessel Scrap Pvt. Ltd.	16-10-2025	18
	762	Sagar Laxmi Ship Breakers.	17-10-2025	12
Pakistan	764	Jamaluddin & Co	28/10/2025	15
	765	Prime Ship Breakers	28/10/2025	11
	766	Safe Green Recycling	28/10/2025	9







