



# Checklists

**Note! ChemSAR SOPs and checklists are supplements to existing Search and Rescue (SAR) procedures; they do not replace any part of them.**

These SOPs and checklists do not have to be used in chronological or any specific order, as they can be used on a need basis: one by one, parallel, etc., depending of the actual situation.

Checklists are marked with labels which are pointing out the users to whom checklist is intended to:

**ASHORE**

Rescue Coordination Centres (JRCC, MRCC) and other coordinating and commanding units etc.

**SEA**

Search and Rescue Units (SRUs) and other on-scene operator, unit etc.

In the Checklists there are three tick boxes marked in issues to be confirmed. These tick boxes are marked with different colours and meant to be used as follow:



**YES**



**NO**



**NOT APPLICABLE**

In need of MIRG specified tasking forms, Baltic Sea MIRG project's forms are available at [www.raja.fi/MIRG](http://www.raja.fi/MIRG)

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## SOP 1: Assessment of the incident

### 1: HNS INVOLVED



- HNS name, Proper Shipping Name (PSN), UN number, CAS number
- Nature of damage and/or size of the outflow
- Situation of the incident (dynamic/static)

### 2: ADDITIONAL INFORMATION



- Ongoing or planned rescue and response operations by the crew
- Weather impact (sea state, wind direction, tide, forecast)

### 3: HNS DETAILS

(SC DPA, databases, HNS experts etc.)



- Form and package of the HNS
- Quantity of HNS, rate of release and the theoretical max. release
- Reactivity and properties of the HNS
- Risk for fire or explosion
- Expected hazards for human and environment
- HNS spreading estimations
- Cargo separation and cargo plan (possible other HNS)

### 4: ACTION PLAN - HIGH RISK OPERATION CABILITIES AND RESOURCES

No external assistance needed

Consultation

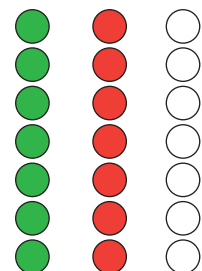
External assistance; emergency towing, MOB – checklist 6

External assistance - entry team – checklists 4, 5

Evacuation – checklist 6

Intervention impossible caused by HNS – checklist 2

Place of refuge / Safe haven – checklist 6





ASHORE

SEA

## SOP 2: Determination of the restriction area

### 1: RESTRICTION AREA

- No information HNS involved → Determine restricted area at least 2NM radius from the DV
- Navigational warnings



### 2: DEFINING THE RESTRICTION AREA

- Based on HNS information and risk assessment
  - Experts, measurements, predictive tools, databases, cargo plan
  - Information on-scene
- National and local warnings



### 3: WORKING AREAS FOR SAR OPERATION

- Hot, Warm and Cold Zone
- Entry point



### 4: NAVIGATIONAL WARNINGS CONCERNING THE SAFETY ZONE



### 5: AREA MONITORING AND SURVEILLANCE





## SOP 3.1: Arrival to the scene of incident

### 1: RESOURCES



- SRUs with capability enter and work in the hazardous area
- SRUs with limited capability to enter
- Rescue crafts onboard SRUs, other vessels, aircrafts and special groups

### 2: SRU CAPABILITIES



- Detection and monitoring
- Decontamination and emergency medical care
- Available personnel, PPE, response equipment

### 3: HNS RISK ASSESSMENT



- Area restrictions, safe direction to approach
- Working zones
- Hazards, HNS drifting estimations
- Weather forecast

### 4: EXECUTING – INFORMATION



- Planned tasks, HNS risk information e.g. explosive / flammable hazard
- Area restrictions, safe direction to approach
- Detection and monitoring plan
- Entry points to warm and hot zone
- Emergency plan
- Latest HNS drifting calculations / estimations / SITREP



## SOP 3.2: Arrival to the scene of incident

### I: SAFETY MEASURES



- Pressurisation
- Gas detection and monitoring systems
- EX-measures (flammable/explosive hazards involved)
- Water curtain or water spray system
- Water / foam cannons
- Emergency evacuation and rescue plan
- Facilities and equipment
  - Emergency medical care / First aid facilities
  - Decontamination procedures
  - PPE equipment
  - Other protective equipment
  - Portable and hand-held detection and measurement equipment

### 2: DETECTION AND MEASUREMENT



- Remote sensors
- Fixed and portable sensors
- Visual monitoring

### 3: SAMPLING



- Sampling plan
- Equipment
- PPE level
- Weather (wind/humidity/waves) and weather forecast

### 4: RCC AND OTHER UNITS INFORMATION (SITREPS)





## SOP 4: Boarding

### I: RISK ASSESSMENT AND OCCUPATIONAL SAFETY

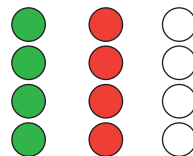
Emergency evacuation

Specific protection procedures

PPEs during transport phase

Boarding / entry team brief

- Action plan, task, situation onboard DV
- Risk assessment, detection and measurement devices
- Communications, PPE level, safety equipment
- Registration of the boarding personnel



### 2: LIMITATIONS

- HNS risk assessment
- Limitations for helicopter
- Weather impact
- Capabilities (SRU/DV)



### 3: PRE BOARDING MEASURES

- Water / foam systems and EX / ignition preventive procedures



### 4: BOARDING POSSIBILITIES

- Safe boarding point
- Landing/wincing procedures
- Boarding procedures
- Reception and guidance
- Emergency decontamination / first aid on board DV
- Supplementary SCBAs / EEBDs







## 5: MEANS OF EMBARKATION IN CURRENT SITUATION

- DV crew assistance / boarding team
- SRU alongside / rescue basket etc.
- Hatches (pilot etc.) gangway, ladders, rescue boat





## SOP 5: Rescue operation on board the distressed vessel

### 1: RISK ASSESSMENT

- Updated HNS information
- Action plan



### 2: EARLY PHASE RESPONSE

- Situation onboard
- Ongoing actions
- Planned actions

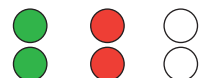


### 3: RESCUE PROCEDURES

Preparations

Rescue and response team preparation

- PPE
- Equipment
- Emergency decontamination



Entry procedure

- Support
- Risk assessment
- Response and detection
- Emergency medical service and evacuation
- Preparations to abandoning / MRO



Rescue activities onboard



Disembarking





## SOP 6: Evacuation and emergency towing

### 1: SITUATION AWARENESS

Number of persons to be evacuated



Number of injured /contaminated and/or deceased persons



Type of contamination



### 2: FACILITIES ONBOARD SRU

Counting and TRIAGE



Decontamination



Emergency medical care



Connection to the shore / POC on shore (ambulances, hospitals)



### 3: OPERATION

Possibility to provision for the supplementary PPE



Emergency decontamination and first aid / emergency medical care



### 4: EMERGENCY TOWING PROCEDURES

Controlling or towing the DV to reduce the impact of the HNS



Emergency towing procedures onboard DV (DV crew, boarding team)



Place of refuge / safe haven





## SOP 7: Decontamination

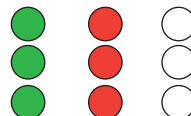
### 1: PREPARATION AND ESTABLISHING

Basic requirements

Possibilities for effective operation

Decontamination process planning

- Location
- Personnel, PPEs
- Entry and exit points
- Clean and unclean sites
- Emergency medical care
- HNS specific decontamination process
- Type of contamination, injured persons



### 2: DECONTAMINATION PROCESSES

Emergency decontamination

Responder decontamination

SRU and equipment decontamination

Contaminated waste handling

