

**REGULATIONS**  
for international competitions  
between gas and smoke protective service (further GSPS) teams  
for the V.V. Dekhterev cup  
2017

The International competitions for the V.V. Dekhterev cup are held in accordance with the plan of Main Directorate of MES of Russia in St. Petersburg and the program of competitions. The organization of the competitions is the responsibility of the Chief of part-time Gas and Smoke Protective Service (hereafter PtGSPS), the Chief of the Logistics Service of Chief Directorate of MES of Russia, the Chief of the federal government institution “Crisis Management Center of Chief Directorate of MES of Russia in St. Petersburg” and the Chief of 2nd Federal Fire Service Unit.

These conditions are developed in accordance with “Regulations for international competitions between gas and smoke protective service (Further GSPS) teams for the V.V. Dekhterev prize” (further Regulations).

**Competitors**

The competitions involve teams that are not a part of fire and rescue garrison of St. Petersburg.

The team includes four smoke divers (including 1 GSPS team leader (and a control officer (safeguarding smoke diver) if it is required in accordance with requirements document of the participant country (hereafter Requirements). Team leader shall have white armband tied on the left shoulder.

The equipment of smoke divers shall meet with the Requirements, the equipment at the finish line shall be the same as it is at start line.

Smoke divers helmet marking shall meet the Requirements.

It is prohibited to change the composition of the team, including the team leader, safeguarding smoke diver, except in cases of injury of smoke divers and the impossibility of their further participation.

If a participant can't continue the exercise for medical reasons, it is possible to replace him with a safeguarding smoke diver. In that case the team representative acts as a safeguarding smoke diver.

**Exercise conditions**

The participants are offered to perform two exercises:

1. Overcoming fire zone of psychological training with the leakage elimination, by closing of pipeline valve, also with the elimination of burning of combustible liquid (further CL) and performing the opening of the door with the circular saw.
2. Implementation of the deployment in the deck superstructure, with the opening of the door with a circular saw, locating the "victim" on the 1st floor of the superstructure and his further evacuation, liquidation of the conditional "initial fire".

**EXERCISE 1.**

**Overcoming fire zone of psychological training with the leakage elimination, by closing of pipeline valve, also with the elimination of burning of combustible liquid (further CL) and performing the opening of the door with the circular saw.**

By the command of the informant judge "Prepare for the exercise" team members arrive to the starting point in uniform, with the equipment and RPE. Fire extinguishers (main and reserve) and circular saw should be at designated place. The judge should check the uniform, the equipment and communication and lighting tools. By the command "ready" the team checks breathing apparatus in accordance with the Requirements. The referee by the command of the senior judge of the competitions puts into action the irrigation system and burns the combustible liquid up, than follows the command "set" and "go" (the shot of a starting pistol).

The exercise is carried out by all team members, including control officer (safeguarding smoke diver) (while control officer (safeguarding smoke diver) is included in the GSPS team).

The time between "ready" and "go" commands should be more than 5 minutes.

The exercise should not take more than 10 minutes to complete. After 10 minutes, the exercise is considered to be unfulfilled.

In case the team didn't fulfill the exercise, the team is charged with 15 penalty minutes.

The team goes through the elements according to the scheme (Figure No. 1), it is necessary to move along the steps when climbing (descending) the stairs, except the staircase when leaving the car ramp pit.

After the "go" command, the team goes through the element No. 1 "car ramp". Moving along the element, the team eliminates the leakage by overlapping the valve of the pipeline (the valve is twisted to be fully closed). The team can continue to move (cross the control line) only after the valve is fully closed and leakage is fully eliminated. Descending the stairs is carried out facing it, stepping over no more than one step. When leaving the pit, it is allowed to descend to the ground directly from the stair platform.

Further, the team moves to the element No. 2 to eliminate the burning of the combustible liquid in the tray with the help of one fire extinguisher. If it is not possible to eliminate the burning with one fire extinguisher, it is permitted to use a reserve fire extinguisher. It is forbidden to extinguish the liquid with two fire extinguishers simultaneously.

In case both extinguishers to be out of order, the exercise is terminated, the team returns to the start line for a second turn. After the elimination of the burning of combustible liquid, smoke divers should leave used extinguisher(s) on the designated platform at the car ramp and continue the exercise.

Further, the team goes through the elements Nos. 3, 4, 5. After the last smoke diver have left the element No. 3, the "labyrinth", the team begins going through the element No. 4 "fence", while smoke divers can assist each other. It is forbidden to cross the control lines of elements until the last smoke diver haven't gone through it. At the element No.5, before entering the second tunnel, a smoke diver start a circular saw and performs the door opening operation (element No. 6) and cuts the door bolts, than shut the saw engine down, places it in the designated place and continues movement to the next element according to the scheme. While working with a circular saw, all smoke divers stand behind the smoke diver with the saw. It is

forbidden to take in hands and (or) to start a saw before all smoke divers have left the first tunnel. It is prohibited to direct the cutting part of the saw towards the smoke divers.

Then the smoke divers go through elements Nos. 7, 8.

After the "cable tunnel" (element No. 8), the team goes to the finish line.

The result is determined by the time from the "start line" to the moment of crossing of the "finish line" by the last smoke diver.

At the end of the exercise, smoke divers turn off the RPD, remove all the equipment in the shortest possible time and prepare for the next exercise.

## **EXERCISE 2.**

**Implementation of the deployment in the deck superstructure, with the opening of the door with a circular saw, locating the "victim" on the 1st floor of the superstructure and his evacuation, liquidation of the conditional "fire".**

By the command of the informant judge "Prepare for the exercise" team members arrive to the starting point in uniform, equipment and RPE. Pressure hoses (51 mm in diameter) (the number of hoses and the way they are arranged is not regulated), blocking hose, circular saw should be on the start line. The hoses are not connected to each other; the blocking hose is disconnected from the hoses. The main line (77 mm in diameter) should be laid on the 2 floor, three-run branching should be installed on the 2nd floor. Soft stretchers are carried by one of smoke divers.

The judge should check the uniform, the equipment, communications and lighting tools. Then follows the command "Ready". The team checks breathing apparatus in accordance with the Requirements. The starting position: the smoke divers connected to the RPE are standing on the "start" line. When everything is ready, the judge commands "set" and "go" (the shot of a starting pistol).

The time between "Ready" and "Go" commands should be more than 15 minutes.

The exercise does not take more than 15 minutes to complete. After 15 minutes, the exercise is considered to be unfulfilled.

In case the team didn't fulfill the exercise, it is charged with 20 penalty minutes.

GSPS team goes through the elements according to the scheme (Figure No. 2) Control officer (safeguarding smoke diver) starts simultaneously with the team.

After the "Go" command the team takes pressure hoses 51 mm in diameter, blocking hose, circular saw and moves according to the scheme. The team goes to the second floor, connects the working hose line to the branching, at the same time one of the smoke divers opens the entrance door of the deck superstructure with a saw, then shut the saw engine down, places it in the designated place. While working with a circular saw, all smoke divers stand behind the smoke diver with the saw. It is forbidden to start the saw before all smoke divers enter the second floor. It is prohibited to direct the cutting part of the saw towards the smoke divers (control officer (safeguarding smoke diver)).

The leader checks the presence of water in the work line: he briefly opens the nozzle, the water spray should be visible before entering the "environment unusable for breathing" (deck superstructure). All smoke divers and control officer (safeguarding smoke diver) should be on the second floor. When the first smoke diver enters the deck superstructure, the pressure on the pump will be at least 3 atm.,

by the command of the control officer (safeguarding smoke diver), it can be increased. To exclude the saw damage, the control officer (safeguarding smoke diver) is allowed to change the position of the saw after putting it into the designated place and entry of the team into an "environment unusable for breathing».

The team conducts reconnaissance in the rooms of the 2nd and 1st floors of the deck superstructure with a working line filled with water. Control officer (safeguarding smoke diver) is allowed to assist the team to lay the working hose line, and he must be in front of the entrance to the "environment unusable for breathing", on the second floor, from the moment the team enters the superstructure, to the moment the team finishes.

The team in the smoke-filled zone of the 2nd floor finds the ladder to the 1st floor, descends to the 1st floor of the deck superstructure, searches for the "victim" and takes it out on soft stretchers to the designated place while simultaneously laying the working line to the "nozzle operator" to eliminate the "initial fire". When the team carrying out the "victim", hands and head should not hang from the stretchers, different part of victim's body should not touch the elements of construction and the ground.

The commander of the team with the nozzle leaves the deck superstructure first, smoke divers are allowed to return to the deck superstructure to lay the working line. The work of nozzle operator begins when the "victim" is laid in the designated place and all smoke divers are in the designated place. During elimination of the conditional "initial fire," the nozzle operator and the team should be in the designated position in full force.

The result is determined by the time from the "start line" to the moment of the target to be stroked with water. At the end of the exercise, smoke divers turn off the RPD, remove all equipment in the shortest possible time.

**Remarks:**

1. Smoke divers should have communication and lighting tools in accordance with the requirements.
2. It is necessary to move along the steps when climbing (descending) the stairs.
3. The leader of the GSPS team always heads the team during the exercise, when crossing control lines and finishing, except for cases of using a circular saw, overlapping the valve of the pipeline and overcoming the "fence". It is allowed to change the order of the movement in GSPS team before smoke divers enter 2nd floor of the deck superstructure, from the moment they exit the deck superstructure, before they enter the fire extinguishing zone.
4. In case of violation of the Requirements by participant(s) of the Competition, leading to "injury" of one of smoke divers, the exercise is terminated until the violation is eliminated. However, the time of exercise does not stop.
5. During the exercises using compressed-air breathing apparatus, it is allowed to replace out-of-service RPE with a spare one. The team at full strength should return to the start line at least distance and replace RPE. After the replacement of RPE, the team returns at least distance to the point they stopped exercise and continues doing exercise according to the scheme. However, the time of exercise does not stop.
6. If one part of compressed-air breathing apparatus disconnected from the other part during the exercise, the team should eliminate the violation and proceed the

exercise. At the same time, the exercise time does not stop and the penalty time is calculated according to the Table.

7. If one of the smoke divers removed the face piece of compressed-air breathing apparatus during the exercise, the exercise is considered to be unfulfilled; the team is penalized according to the conditions of the Exercise.

8. In case of a damage of elements of compressed-air breathing apparatus, smoke diver is allowed to continue moving till the end of the exercise, the penalty time is not charged.

9. If during the exercise the air is run out in one of the breathing apparatus or the reducer is damaged, the smoke diver connects to the apparatus of another smoke diver.

10. In case of violation of the integrity of the main hose line, which does not allow eliminating the "initial fire", the team stops the exercise and is given a second run.

11. If there is a disconnection of the working hose line, which does not allow eliminating the "initial fire," the team is allowed to return to the start line, take the reserve sleeve and replace it. The team is allowed to exit the deck superstructure, in its entirety, from the branching point, to assemble the working line using reserve sleeves and nozzle. Before re-entering the "environment unsuitable for breathing", the leader checks the presence of water in the work line: he briefly opens the nozzle, the water spray should be visible. Then the team moves according to the scheme (Fig. 2). The control officer (safeguarding smoke diver) is allowed to carry reserve sleeves and nozzle to the place of branching.

12. If there is a leak in the work line, control officer (safeguarding smoke diver) is allowed to install a sleeve clamp, and it must be located in front of the entrance to the "environment unsuitable for breathing", in the designated place.

13. It is forbidden to block the branching valve when smoke divers are in (on) the deck superstructure.

14. If the saw blade is damaged, it can be replaced. The replacement is made by any of smoke divers (or control officer (safeguarding smoke diver)), the spare blade is on the start line. However, the time of exercise does not stop.

15. It is prohibited to remove protective gloves, unsnap and remove the helmet.

16. In case of breakdown of circular saw during the exercise, until the door is opened and further execution of exercise is impossible, the leader of the team should report to the judge, the exercise is considered to be unfulfilled.

17. In case of burnback of combustible liquid after the team have overcome the element No. 2 (pan with combustible liquid) the team continues the Exercise No. 1. The team is penalized according to the Table. It is prohibited to return for repeated extinguishing.

18. GSPS team is penalized in case of violation of pattern of motion according to the Table.

**Table of penalty time charged for violations of exercise conditions**

No.	Violation	Penalty time, in seconds
1.	Violation of preparation time for the exercise.	10
2.	Team representative occurs in the exercise zone without agreement with the senior referee of the competition.	60
3.	Other violations of smoke diver(s) of the conditions of the	5

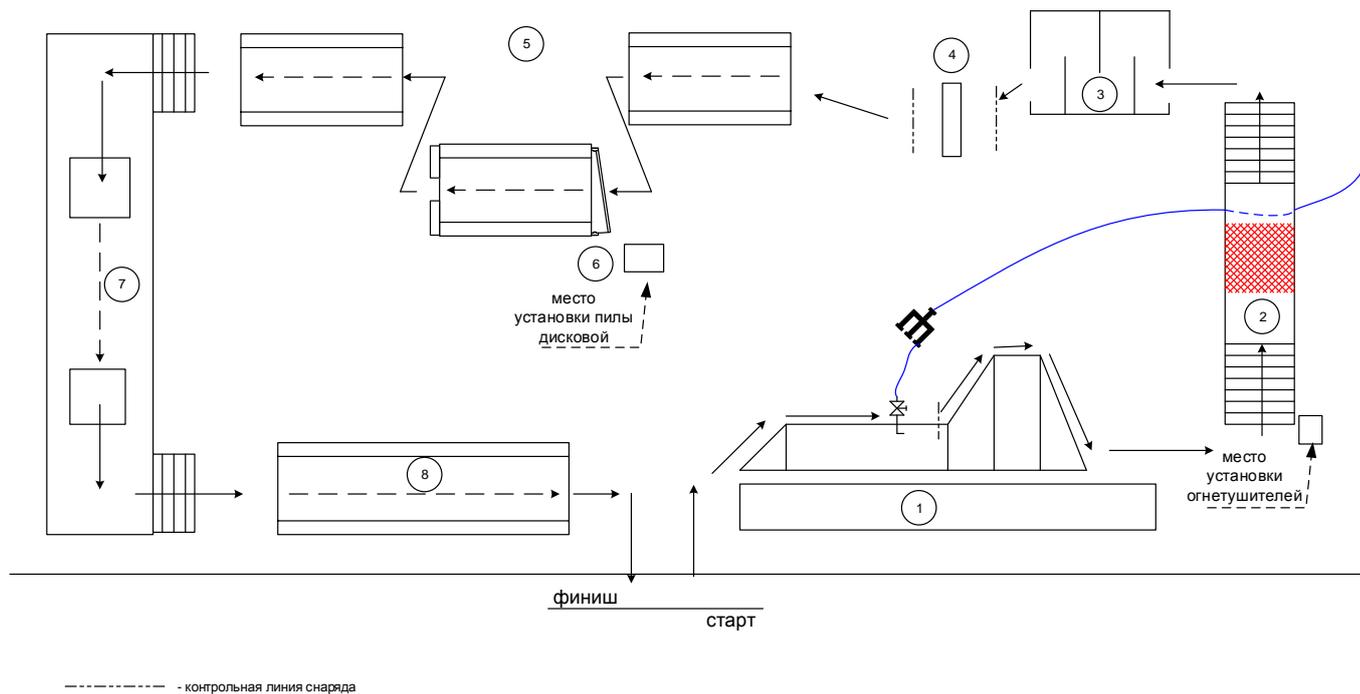
	exercise (for each fact of violation).	
4.	Violation of the movement order on the stairs (for each fact of violation).	10
5.	Violation of the movement order of the leader of the GSPS team (for each fact of violation).	5
6.	Loss of equipment during the exercise (for each unit).	5
7.	Smoke diver took protective gloves off, removed or unsnapped the helmet during the exercise (for each fact of violation).	15
8.	Violation of the pattern of movement during the exercise (for each fact of violation).	100
9.	Smoke diver (s) made gross violation of the requirements, entailed injury to the participant(s) of the competition and the inability to further participation in competitions (for each fact of violation).	300
10.	Moving of the smoke diver(s) in the opening (door) without placing the saw in the designated place before its engine is muffled, the saw is pushed aside (in Exercise No. 2) not by control officer (safeguarding smoke diver) (for each fact of violation).	15
11.	Smoke divers or control officer (safeguarding smoke diver), or any part of the body being not behind smoke diver operating the saw, smoke diver forwarded the saw's blade to others (or to safeguarding smoke diver) (for each fact of violation).	15
12.	The saw motor works after all smoke divers of the team have passed through the doorway or if it is muffled by the control officer (safeguarding smoke diver).	30
13.	The disabling of a mechanized tool, RPE caused by smoke diver.	300
14.	Control officer (safeguarding smoke diver) has violated the conditions of the exercise (for each fact of violation).	15
15.	Detachment of the breathing valve from the breathing apparatus (for each fact of violation).	15
<b>Exercise 1</b>		
16.	Crossing the control line of the element of exercise before passing it by all smoke divers, until the valve is fully closed (for each fact of violation).	15
17.	Smoke diver began working with a circular saw before all smoke divers leaved first tunnel.	15
18.	The fire extinguisher(s) fall from the car ramp (for each fact of violation).	15
19.	Burnback of combustible liquid after the last smoke diver have passed through the tray with combustible liquid.	150
20.	Simultaneous extinguishing of the liquid with two fire extinguishers.	40
21.	The valve of the irrigation system is not fully closed when the team finishes.	50
<b>Exercise 2</b>		
22.	Smoke diver started moving without checking the water in the fire line.	30
23.	Violation of the conditions of carrying the victim (for each fact of violation).	30
24.	Smoke divers began to move into "environment unsuitable for breathing" with hoses that: not connected to each other, or not connected to the hose line by a fire	240

	nozzle, or not connected to a three-run branching by a hose line (for each fact of violation).	
25.	One entered the 2nd floor of the superstructure prior all smoke divers and control officer (safeguarding smoke diver) have risen to the superstructure.	30
26.	Smoke diver started a circular saw before lifting to the 2nd floor of the superstructure.	120
27.	Nozzle operator started to liquidate the "initial fire" before the "victim" was placed in the designated place, until the team gathered in full force (for each fact of violation).	25
28.	Overlapping of the branching valve when the team is in (on) the deck superstructure.	60

### **Results of competition**

The winner of competitions is determined by the least amount of time spent on the implementation of all exercises.

**СХЕМА ПРОХОЖДЕНИЯ ПОЛОСЫ ПСИХОЛОГИЧЕСКОЙ  
ПОДГОТОВКИ ЗВЕНОМ ГДЗС (УПРАЖНЕНИЕ № 1)**



Scheme of Exercise No. 1

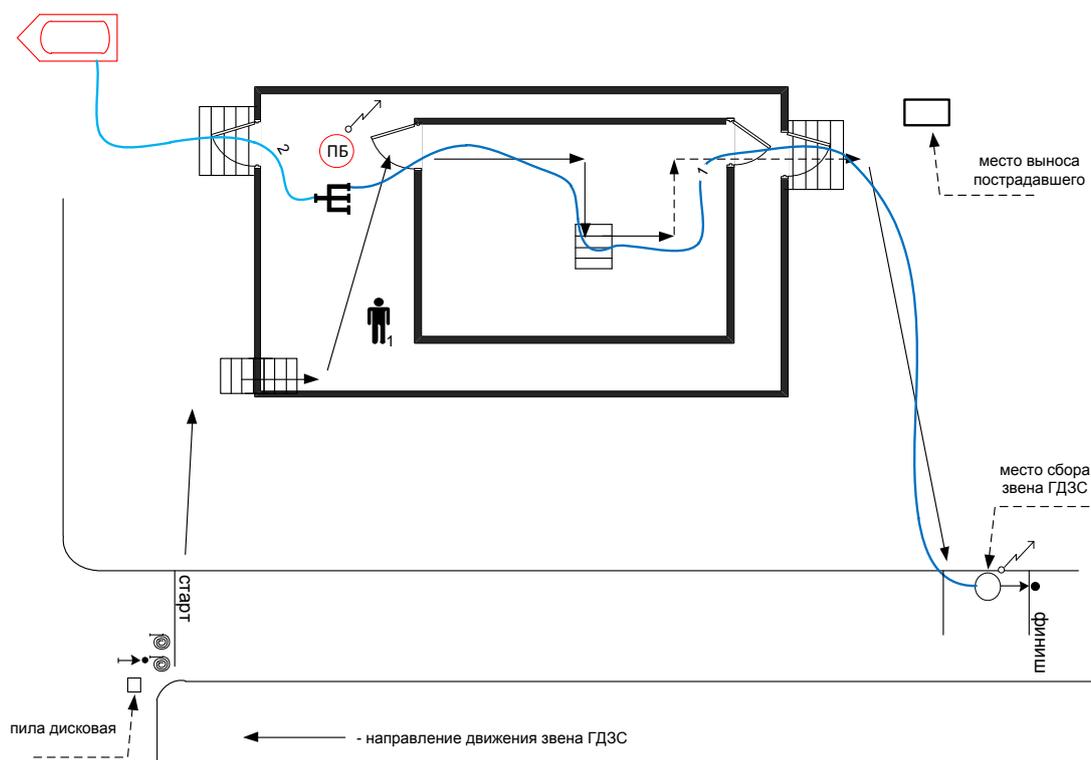
Finish Start

Место установки огнетушителя – Extinguishes

Место установки пилы – circular saw

Контрольная линия снаряда – control line of the element

## СХЕМА ПРОХОЖДЕНИЯ УПРАЖНЕНИЯ №2 ЗВЕНОМ ГДЗС



Scheme of Exercise No.2

Пи́ла дисковая – circular saw

Место выноса пострадавшего – place for “victim”

Место сбора звена – gathering spot

Направления движения – moving direction

**PROGRAMM**  
of international competitions  
between GSPS teams  
for the V.V. Dekhterev prize  
2017 г.

1. September, 21:

1.1. Check in.

1.2. Studying the elements of the exercises, zone of psychological training, deck superstructure.

2. September, 22:

2.1. 10.30 a.m. – Opening ceremony;

2.2. 11.00 a.m. – Start of competition;

2.3. 4.30 p.m. – End of competition, results of competition;

2.4. 5.00 p.m. – Rewarding ceremony.

3. September, 23:

3.1. Check out.

Depending on the wishes of the participants and team representatives, this program can be adjusted and agreed with team coordinators.