

TECHNICAL SPECIFICATION FOR THE PROCUREMENT OF FIREFIGHTER'S GENERAL SERVICE UNIFORM

Project number and name: The UNDP-GEF project "Conservation and sustainable management of key globally significant ecosystems for multiple benefits", 00101043

Place of delivery: Department of natural resources and environmental management of East Kazakhstan region, 19 Karl Liebknecht str., Ust-Kamenogorsk

Delivery term 60 calendar days from the date of issuing the purchase order

PROJECT DESCRIPTION:

The UN Development Programme in Kazakhstan (UNDP) in partnership with the Forestry and Wildlife Committee of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan implements the GEF-UNDP project "Conservation and sustainable management of key globally significant ecosystems for multiple benefits" (hereinafter the Project) aimed at the conservation and sustainable management of forest resources.

The aim of the Project is to improve the conservation and management of forest resources and adjacent meadow, inundable and desert ecosystems that are important for the conservation of biodiversity, land resources and the well-being of local populations. To achieve the Project objective and reduce certain threats and barriers, the project structure involves working on 3 components.

JUSTIFICATION:

In accordance with the Working plan of the Project for 2021, the analysis of the provision of pilot forest protection institutions with forest fire stations and their equipment in accordance with the standards of material and technical support was carried out.

The analysis showed that despite the annual increase in funding, the equipment of forestry institutions of regional akimats is approximately 65% of the standard, while some of the fire-fighting equipment and equipment has already exceeded its service life. The average percentage of wear of equipment and personal protective equipment in institutions is 60-70 %, and in some cases reaches up to 100%.

For more effective work in the fight against forest fires and strengthening the capacity of pilot forest protection institutions, it is proposed to assist the "Ridderskoe, Pikhtovskoe and Zaysanskoe forestry" MPI of East Kazakhstan region in the purchase of personal protective equipment - firefighter's general service uniform. This event is provided for in the Project's Work plan for 2021.

PURPOSE: Procurement and supply of personal protective equipment for effective forest fire control for 3 pilot forest protection institutions of the East Kazakhstan region.

CONTENT

Firefighter's general service uniform (GSUF) is designed to protect the human body from high temperatures, high-intensity heat flows and possible flame emissions when working in extreme situations that occur when extinguishing a fire.

The main characteristics and physical and mechanical characteristics of the materials and fabrics of the GSUF must correspond to the 1st level of protection against thermal effects in accordance with the requirements of ST RK 1495-2006 "Firefighter's general service uniform. General technical requirements. Test method".

The complete set of GSUF includes: jacket, bib-overall, removable thermal insulation lining of the jacket with a shirt front, removable thermal insulation lining of the semi-overalls.

Additionally: fireman's boots, special belt for firefighters, fireman's helmet, helmet liner, special boots for firefighters.

The GSUF set must not be earlier than 2020 year of manufacture, the first level of protection, for ordinary personnel.

Technical description of products included in the GSUF set:

The upper material must have a stable color. It should not change color during use or during washing. Materials (fabrics) and accessories of GSUF should not have harmful and irritating effects on the human body during its operation. The GSUF design, materials and fittings used must prevent the penetration of water, surfactants and aggressive media into the suit space and protect it from climatic and thermal influences.

Jacket, bib-overall

The GSUF jacket should be made with a central side closing (carabiner), with a windproof flap, which is fixed with a textile tape-contact closing.

The inner side of the collar must be made of a fabric that meets the relevant physiological, hygienic and operational requirements (height of at least 100 mm). The design of the turn-down collar should allow its use as a stand-collar. The sleeves of the jacket must have wristbands made of fabric or knitted fabric. The jacket should have an external patch pocket for the radio station. Two internal pockets should have zippable flaps. All pockets must have "contact" fasteners. The jacket should have four wide loops for a fire rescue belt. In the armhole of the sleeve should be stitched or insert cap with ventilation holes.

Bib-overalls with a one-piece belt assembled with elastic braid, to which straps are attached, fixed with metal buckles; the codpiece is fastened with a textile fastener tape-contact, in the groin area one-piece or stitched inserts-wedges with ventilation holes. In the area of the knees should be reinforced pads-knee pads.

The GSUF should have overlays in the form of strips with a width of at least 50 mm with fluorescent (retroreflective) and luminescent coatings. Pads should be located at the level of the shoulder belt in the chest and back, as well as in the form of continuous circular bands along the bottom of the jacket and bib overalls and on the sleeves.

The area of overlays on the jacket should be at least 0.2 m², in the chest and back area at least 0.08 m². The area of overlays on the bib-overalls should be at least 0.052 m² (0.026 m² each in front and back). The area of fluorescent and luminescent coatings should be the same.

On the back of the jacket at a distance of 150 mm from the seam of the collar, there should be a pad with the inscription "ORMAN KUZETI" in one line, made of materials used for the preparation of pads. Font sizes: letter height - 45 mm, letter thickness - 7 mm. The inscription should be readable in light and dark.

The outer layer of GSUF should be made of fire-resistant material.

Thermal insulation lining of jacket and trousers

The lining must be fastened to the jacket with buttons and includes: a layer of needle-punched cloth; a layer of woolen padding; cotton padding and a water-resistant layer.

Leggings (gloves)

Leggings must provide protection of the firefighter's hands from increased thermal effects (thermal radiation, elevated temperatures, contact with heated surfaces), mechanical effects (punctures, cuts) and harmful environmental factors that occur during firefighting, as well as from adverse climatic influences.

The materials and fittings used must prevent water, surfactants and aggressive media from penetrating the inner surface of the product. They must provide free movement of the firefighter's hands, the ability to control the fire:

- personal protective equipment for the firefighter's eyes and breathing organs;
- radio;
- fire-technical weapons.

Special belt for firefighters

The presence of eyelets

Fireman's helmet

It is an individual protection device for a firefighter. It must protect the firefighter's head from the effects of elevated temperatures, mechanical shocks, aggressive media and other dangerous and harmful factors that occur during firefighting.

Weight without additional equipment - no more than 1500 g. The helmet design includes:

- housing;
- visor (face shield) to protect the firefighter's face from mechanical and thermal influences;
- holding system that provides a reliable fixation of the helmet on the head;
- cape for protection from water and heat influences.

Helmet Liner (Balaclava)

It is intended for use as a means of protecting the head from exposure to dangerous and harmful environmental factors that occur during firefighting, as well as from adverse climatic influences. Weight - no more than 0.1 kg.

Special boots for firefighters

Special protective rubber boots for firefighters are designed to protect the feet from high temperatures, punctures and mechanical damage, water and exposure to aggressive media. Boots must have an anti-puncture insole, a protective metal toe cap and inset insulation.

Requirements for thermal performance of GSUF materials and fabrics

Indicator name	Value of the GSUF indicator of the first level of protection
Resistance to thermal flow: 5.0 kW/m ² , s, not less than	240
Resistance to open flame, s, not less than	15
Resistance to environmental temperature up to 300 °C, s, not less than	300
Resistance to contact with hard surfaces heated to 400 °C, s, not less than	7
Thermal conductivity at a temperature of 50 ~ 150 °C, W/m °C, not more than	0.06
Oxygen index, % (vol.), not less than	28

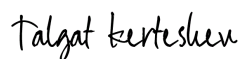
Requirements for physical and mechanical properties of GSUF materials and fabrics

Indicator name	Value of the GSUF indicator of the first level of protection
Surface density, g /m ² , not more than	200
Breaking load: - on the basis, N, not less than -on the warp and weft, N, not less than	2400 2450
Resistance to tearing: - on the basis, N, not less than -on the warp and weft, N, not less than	99,5 78,5

Shrinkage after getting wet and drying, %, not more	None
Shrinkage after heating, %, not more than	5
Water resistance, mm w.c., not less than	1 000

Required sizes and quantity

№	Name	Size	Number	UOM
1	Jacket, bib-overalls, removable thermal insulation lining of the jacket, removable thermal insulation lining of the bib-overalls.	52-54/158-164 - 10 pcs 52-54/170-176 - 10 pcs	20	pcs
2	Leggings (gloves)	Standard	20	pair
3	Special belt for firefighters	2 size	20	pcs
4	Fireman's helmet	Standard	20	pcs
5	Helmet liner (Balaclava)	Standard	20	pcs
6	Special boots for firefighters	42 size-10 pair 43 size – 8 pair 44 size – 2 pair	20	pair

Approved by:


 Talgat Kerteshev

Project Manager

Date: 28-Jan-2021



 Abduvakkos Abdurahmanov

GEF Portfolio Manager

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