



कोरोना वायरस से जंग: DRDO की मदद से तैयार हुआ डिसइंफेक्टेंट चैंबर, पूरा शरीर हो जाएगा सैनेटाइज

डीआरडीओ की मदद से गाजियाबाद की एक कंपनी बना रही है। टनल-नुमा इस चैंबर में दाखिल होते ही शरीर सैनेटाईड हो जाता है। ये चैंबर्स अस्पताल, सरकारी ऑफिस और छावनियों के लिए हैं। जो कंपनी इन चैंबर्स का निर्माण कर रही है वो बायोलॉजिकल हमले से बचने के लिए सेना के लिए खास चैंबर भी बना चुकी है।

नीरज राजपूत

नई दिल्ली: कोरोना वायरस देशभर में महामारी बनकर ना फैल जाए उससे पहले ही रक्षा मंत्रालय के अंतर्गत डीआरडीओ ने युद्धस्तर पर तैयारी शुरू कर दी है। इसके लिए डीआरडीओ ने खास 'फुलबॉडी डिसइंफेक्टेंट चैंबर' तैयार किया है जो शरीर के ऊपरी हिस्से पर वायरस को खत्म कर देता है। गाजियाबाद स्थित एक प्राईवेट कंपनी जो पहले देश को बायोलॉजिकल हमले से बचाने में देश की सेनाओं को मदद कर रही थी उसे इन खास चैंबर बनाने की

जिम्मेदारी सौंपी गई है। एबीपी न्यूज की टीम ने खुद इस प्लांट में जाकर देखा कि आखिर ये 'वॉकथ्रू चैंबर' कैसे कोविड-19 को खत्म करने में सहायक है।

करीब छह फीट लंबा और दस फीट ऊंचे इस डिसइंफेक्टेंट चैंबर में पाइप लगे हैं। छोटी टनल-नुमा इस चैंबर में आप जब प्रवेश करते हैं तो पाइप से पानी और हाईपो-सोडियम क्लोराइड की फुहार आपके पूरी शरीर पर चारों तरफ से छिड़काव करने लगती हैं। बॉडी को 25 सेंकेड तक इसी चैंबर में 360 डिग्री में घूमना होती है तािक सिर से लेकर पांव तक



आपका पूरा शरीर कीटाणु-रहित हो जाए यानि ये चैंबर कोरोना वायरस को पूरी तरह से धो डालता है।

डिफेंस रिसर्च एंड डेवलपमेंट ऑर्गेनाइजेशन यानि डीआरडीओ की अहमदनगर (महाराष्ट्र) स्थित व्हीकल रिसर्च लैब यानि वीआरडीई (VRDE) ने इस चैंबर को कोरोना वायरस से लड़ने के लिए डिजाइन किया है।डीआरडीओ ने इस चैंबर के बल्क-प्रोडेक्शन के लिए राजधानी दिल्ली के करीब गाजियाबाद की डीएच लिमिटेड नाम की कंपनी को चुना है। तािक उन जगह जहां पर लोगों की भीड़ इत्यादि होने की संभावना ज्यादा होती है वहां इन्हें लगाया जा सके।

जानकारी के मुताबिक, शुरूआत में इन चैंबर्स को अस्पताल, सरकारी ऑफिस, सेना के कैंप इत्यादि में लगाने की तैयारी है, ताकि कोई भी आदमी या सैनिक यहां आए तो वो पूरी तरह से डिसइंफेक्टेंट होकर ही अंदर दाखिल हो। यानि कोरोना वायरस को पूरी तरह से धोकर ही अंदर आए और कोरोना वायरस अंदर दाखिल ना हो सके।

करीब 96 घंटे यानि चार दिनों के अंदर डीआरडीओ ने डीएच कंपनी के साथ मिलकर इस चैंबर के दो वर्चन तैयार किए हैं। अपग्रेडेड वर्जन में चैंबर के साथ एक सेंसर लगा वॉशबेसिन है जिसमें लिक्विड सोप ऐर सैनेटाइजर भी है। हाथ साफ करने के बाद पैर से इस चैंबर को स्टार्ट किया जा सकता है। यानि आपको अंदर जाने के लिए चैंबर के बाहर लगे जैक को पैर से दबाना है और अंदर जाते ही पाइप से हल्की हल्की फुहार शुरू हो जाती है।

डीएच लिमिटेड कंपनी के सीईओ, प्रदीप दास के मुताबिक, इस चैंबर में करीब साढ़े सात सौ लीटर डिसइंफेक्टेंट कैमिकल और पानी आ सकता है। एक बार भरने से इससे 700-800 लोगों को डिसइंफेक्टेंट किया जा सकता है। इस चैंबर में दो छोटे छोटे इंजन लगे हैं जिससे पाइप से बौछार की जाती है। इस चैंबर की कीमत 4-5 लाख रूपये है। लेकिन इसके दूसरे वर्जन की कीमत करीब एक से दो लाख रूपये हैं। इस दूसरे वर्जन को डीएच कंपनी आम लोगों के लिए तैयार कर रही है ताकि मॉल या फिर अपार्टमेंट और हाउसिंग सोसायटी में लगाया जा सके।

दरअसल, डीची कंपनी एक लंबे अरसे से डीआरडीओ और सेना के लिए एनबीसी चैंबर्स यानि न्युक्लिर, बायोलॉजिकल और कैमिकल युद्ध के दौरान सैनिकों को सुरक्षित रखने वाले एनक्लोजर तैयार करती आई है। इसके अलावा मॉडर्न-वॉरफेयर के लिए जैमर-रहित चैंबर भी बनाती है ताकि सेनाओं के कम्युनिकेशन सिस्टम को दुश्मन जाम ना कर सके।

लेकिन प्रदीप दास ने एबीपी न्यूज से खास बातचीत में बताया कि लॉकडाउन के दौरान काम करना एक बड़ी चुनौती साबित हुई। क्योंकि ना केवल सीमित इंजीनियर्स और वर्कर्स के साथ उन्होंने काम किया बल्कि पंप और चैंबर बनाने के लिए मैटेरियल मिलने में भी उन्हें खासी दिकक्त आई। क्योंकि दुकान, बाजार और सिविल प्लांट सभी बंद हैं। लेकिन कोविड-19 के खिलाफ जंग में लड़ने के लिए उनकी कंपनी पूरी तरह से डीआरडीओ और सरकार के साथ खड़ी है। इसीलिए दिन-रात एककर वे इन खास डिसइंफेक्टेंट चैंबर्स को बना रहे हैं। क्योंकि प्लांट में सीमित साधन होनें के चलते अब इस डिजाइन और तकनीक को वे दो और कंपनियों से संपर्क में हैं ताकी दक्षिण भारत के लिए भी इन चैंबर्स को सप्लाई किया जा सके।

 $\underline{https://www.abplive.com/news/india/corona-virus-war-disinfectant-chamber-prepared-with-the-help-of-drdo-full-body-will-be-sanitized-ann-1345551}$



Wed, 08 April 2020

DRDO और विप्रो 3डी ने मिलकर किया बड़ा कारनामा, बनाई देसी फुल फेस शील्ड

डीआरडीओ के अधिकारियों ने यह भी कहा कि यह शील्ड कोरोना वायरस) के मरीजों का इलाज कर रहे डॉक्टरों और स्वास्थ्य कर्मियों को सीधे होने वाले संक्रमण से बचाने में मदद करेगी.

नई दिल्ली: DRDO और विप्रो 3D ने साथ मिलकर पूरे चेहरे को ढकने वाली एक शील्ड (full face shield) बनाई है। इस शील्ड को उन डॉक्टरों और स्वास्थ्य कर्मियों (Doctors and medical staff) को उपलब्ध कराए जाने की योजना है, जो कोरोना वायरस (Coronavirus) के मरीजों का इलाज कर रहे हैं। डीआरडीओ के अधिकारियों ने इस बात की सूचना दी। डीआरडीओ (DRDO) के अधिकारियों ने यह भी कहा कि यह शील्ड कोरोना वायरस (Coronavirus) के मरीजों



का इलाज कर रहे डॉक्टरों और स्वास्थ्य कर्मियों (Doctors and medical staff) को सीधे होने वाले संक्रमण से बचाने में मदद करेगी।

पहले से ही मास्क, फुल बॉडी सूट और PPE की सप्लाई करता आ रहा है डीआरडीओ

बता दें कि पूरे चेहरे को ढकने वाली शील्ड (full face shield) बनाने से पहले ही डीआरडीओ (DRDO) मास्क, फुल बॉडी सूट और कई सारे PPE की सप्लाई मेडिकल स्टाफ (Medical Staff) को कर चुका है।

<u>https://hindi.news18.com/news/nation/drdo-and-wipro-3d-team-came-together-to-fight-coronavirus-created-full-face-shield-2995033.html</u>



Wed, 08 April 2020

DRDO & Wipro 3D develop 'full face shield' to protect covid warriors from direct infection

Defence Research and Development Organisation (DRDO) and Wipro 3D, on Tuesday, have come up with a 'full face shield' to protect doctors from direct infection

By Suchitra Karthikeyan

Mumbai: Aiding doctors and other health officials who are involved in the treatment and care of Coronavirus (COVID-19) patients, Defence Research and Development Organisation (DRDO) and Wipro 3D, on Tuesday, have come up with a 'full face shield' to protect them from direct infection. India's premier defence research facility has already provided several testing kits, PPEs and masks to the health ministry for the same. India's current COVID-19 case tally stands at 4789, with the 124 deaths.

DRDO Designs Disinfection Chamber

On Sunday, DRDO unveiled a full-body disinfection chamber and a special face protection mask for healthcare professionals. The special chamber called 'PSE' has been designed by Vehicle Research Development Establishment (VRDE), Ahmednagar, a DRDO Laboratory as a walkthrough enclosure for personnel decontamination, one person at a time, equipped



with sanitiser and soap dispenser. On entering the chamber, the electrically-operated pump creates a disinfectant mist of hypo sodium chloride for disinfecting, which automatically stops after 25 seconds.

DRDO's Bio Suit

The defence research organisation had also developed a bio-suit to keep safe medical, paramedical and other personnel engaged in containing the pandemic. The bio-suit has been subjected to rigorous testing and exceeds the standards set for body suits by the Ministry of Health and Family Welfare. DRDO is aiming to start mass production of the suits and has a current production capacity of 7,000 suits per day. It has already identified companies to assist with production.

https://www.republicworld.com/india-news/general-news/drdo-and-wipro-3d-develop-full-face-shield-to-protect-covid-warriors.html



Wed, 08 April 2020

COVID-19: DRDO developed disinfectant chamber deployed at AIIMS, Delhi

New Delhi: The Defence Research and Development Organisation (DRDO) deployed a disinfectant chamber at the All India Institute of Medical Sciences (AIIMS) in the national capital to prevent the spread of Coronavirus.

"The chamber uses a solution that is known to kill COVID-19 and will help in controlling the spread of coronavirus," said DRDO officials.

The DRDO has been working on providing a large number of medical and personal protection equipment for healthcare personnel in the country.

On Tuesday, DRDO said that it has developed a 3D full-face shield for doctors and medical staff treating COVID-19 patients along with private firm Wipro.

The shield will protect healthcare personnel from direct infection. DRDO had already supplied masks, full-body suits and many personal protection equipment (PPE) for the medical staff.

A total of 2.94 lakh Personal Protective Equipment (PPE) coveralls have been arranged and supplied by the Government of India so far.

To ensure that front line health

workers are protected against the contagious virus, DRDO has also developed a bio-suit to keep them safe.

DRDO laboratories are using their technical expertise in textile, coating and nanotechnology to develop the Personal Protective Equipment (PPE) having a specific type of fabric with coating.

DRDO is also working on a multi patient ventilator to help meet the shortage of critical equipment for patients. (ANI)

https://www.aninews.in/news/national/general-news/covid-19-drdo-developed-disinfectant-chamber-deployed-at-aiims-delhi20200407233050/



Wed, 08 April 2020

DRDO installs disinfection chamber at AIIMS on trial basis

DRDO installs disinfection chamber at AIIMS on trial basis

New Delhi: In the ongoing fight against COVID-19 pandemic, the Defence Research and Development Organisation (DRDO) has installed its newly developed full body disinfection chamber at All India Institute of Medical Sciences (AIIMS).

The chamber will help in controlling the spread of coronavirus.

A senior DRDO officer told IANS, "It has been installed on trial basis. We are looking how it is working." The officer explained that once successful, it will also install as per demands from the respective organisations.

Last week, DRDO developed the full body disinfection chamber called as Personnel Sanitization Enclosure and face protection mask.

The Vehicle Research and Development Establishment in Ahmednagar, a DRDO Laboratory, had designed the full body disinfection chamber called as personnel sanitization enclosure.

"The walk through enclosure is designed for personnel decontamination, one person at a time. This is a portable system equipped with sanitizer and soap dispenser," the DRDO had stated.

The decontamination is started using a foot pedal at the entry. On entering the chamber, electrically operated pump creates a disinfectant mist of hyposodiumchloride.

The mist spray is calibrated for an operation of 25 seconds and stops automatically indicating completion of operation.

As per procedure, personnel undergoing disinfection will need to keep their eyes closed while inside the chamber.

The system consists of roof mounted and bottom tanks with a total of 700 litres capacity. Approximately 650 personnel can pass through the chamber for disinfection until the refill is required.

"The system has see through glass panels on side walls for monitoring purpose and is fitted with lights for illumination during night time operations. A separate operator cabin is provided to monitor overall operations," it said.

"The system has been manufactured with the help of Dass Hitachi Ltd, Ghaziabad, within a time span of four days. This system can be used for disinfection of personnel at the areas of controlled ingress and egress such as entry and exit to hospitals, malls, office buildings and critical installations," DRDO said.

(Disclaimer: This story has not been edited by Outlook staff and is auto-generated from news agency feeds. Source: IANS)

https://www.outlookindia.com/newsscroll/drdo-installs-disinfection-chamber-at-aiims-on-trial-basis/1795233



Wed, 08 April 2020

DRDO disinfection chamber put up at AIIMS for Covid control

DRDO disinfection chamber put up at AIIMS for Covid control

New Delhi: A disinfectant chamber developed by the Defence Research & Development Organisation (DRDO) was on Tuesday put up at the All India Institute of Medical Sciences (AIIMS) in New Delhi.

The chamber uses a solution that is known to kill the Covid-19 virus and help control the spread of the infection.

The system has been manufactured with the help of M/s DH Ltd, Ghaziabad, within a time span of four days. This system can be used for disinfection of personnel at the areas of controlled ingress and egress such as entry and exit to hospitals, malls, office buildings and critical installations.

Vehicle Research Development Establishment (VRDE), Ahmednagar, a DRDO laboratory, has designed the full body disinfection chamber called PSE.

This walk through enclosure is designed for personnel decontamination, one person at a time. This is a portable system equipped with sanitiser and soap dispenser.

The decontamination is by started using a foot pedal at the entry. On entering the chamber, electrically operated pump creates a disinfectant mist of hypo sodium chloride for disinfecting.

The mist spray is calibrated for an operation of 25 seconds and stops automatically, indicating completion of operation. As per the procedure, personnel undergoing disinfection will need to keep their eyes closed while inside the chamber.

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https://www.outlookindia.com/newsscroll/drdo-disinfection-chamber-put-up-at-aiims-for-covid-control/1795121

Business Standard

Wed, 08 April 2020

COVID-19: DRDO developed disinfectant chamber deployed at AIIMS, Delhi

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"The chamber uses a solution that is known to kill COVID-19 and will help in controlling the spread of coronavirus," said DRDO officials.

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DRDO laboratories are using their technical expertise in textile, coating and nanotechnology to develop the Personal Protective Equipment (PPE) having a specific type of fabric with coating.

DRDO is also working on a multi patient ventilator to help meet the shortage of critical equipment for patients.

(This story has not been edited by Business Standard staff and is auto-generated from a syndicated feed.)

https://www.business-standard.com/article/news-ani/covid-19-drdo-developed-disinfectant-chamber-deployed-at-aiims-delhi-120040701901 1.html



Wed, 08 April 2020

DRDO develops sanitising gadgets to fight corona

Baleswar: In the continuing quest for developing indigenous solutions to combat the coronavirus pandemic, the Defence Research and Development Organisation (DRDO) is ready with technologies for sanitising areas of different sizes.

The Centre for Fire Explosive and Environment Safety (CFEES), Delhi has developed two configurations of sanitising equipment. These are spinoffs from technologies developed for fire suppression applications, said a Press release issued by the DRDO.

The equipment developed are Portable Backpack Area Sanitisation Equipment and Trolley Mounted Large Area Sanitisation Equipment.

The CFEES, Delhi with the help of its industry partner has developed portable sanitisation equipment for spraying decontamination solution consisting of one per cent hypochlorite (HYPO) solution for sanitisation of suspected area. The portable system can be mounted as a backpack and can be carried by the operations personnel. This system incorporates low pressure twin fluid (air and disinfectant liquid) technology to generate very fine mist. The system is capable of disinfecting up to 300 square metre area. The application areas can include hospital reception, doctor chambers, office spaces dealing with general public, corridors, pathways, metro and railway stations, bus stations, etc.

The Centre with the help of its industry partner has also developed a higher capacity which is carried on a trolley. The system incorporates low pressure single fluid (disinfectant liquid) technology generating very fine mist. It is capable of disinfecting up to 3,000 square metre area.

It has a tank capacity of 50 litres and has a lancing (throw) distance of 12-15 metres. This is useful for disinfecting hospitals, malls, airports, metro stations, isolation areas, quarantine centres and high risk residential areas.

Two of these systems are being provided to Delhi Police for immediate use. These can be made available to other agencies with the help of industry partners, the release mentioned.

https://www.dailypioneer.com/2020/state-editions/drdo-develops-sanitising-gadgets-to-fight-corona.html

hindustantimes

Wed, 08 April 2020

Railways plans to make 1000 low cost PPE per day after DRDO nod

The Railways will deploy around 17 of its workshops to begin production of 1,000 such protective overalls per day. Plans are also afoot to supply 50% of these PPEs to other medical professionals across the country, the ministry said By Anisha Dutta

New Delhi: The Indian Railways plans to manufacture 1,000 low lost personal protective equipment (PPE) such as overalls for doctors and paramedics per day after its samples made by Northern Railways were tested and approved by the Defence Research and Development Organisation (DRDO) authorities.

The national carrier will deploy around 17 of its workshops to begin production of 1,000 such protective overalls per day. Plans are also afoot to supply 50% of these PPEs to other medical professionals across the country, the ministry said.

"Indian Railways has taken up the in-house production of PPE type overall on a mission mode. A DRDO laboratory recently cleared overalls produced by its Jagadhari workshop. Approved design and material will be used for making this protective overall by other workshops under different zones," the ministry said on Tuesday.

The material for the overall will be procured from Punjab, as it is located near the Jagadhari workshop in Haryana.

The Indian Railways is aiming to produce three sets of overalls per sewing machine per hour for as many days as required in its production units and workshops, the ministry said.

"It may be noted this internal effort of Indian

Railways is over and above a centralised request projected to the government and also indicated to HLL Lifecare Limited (HLL) through indent," the ministry added.

HLL, the government's nodal agency for medical procurement, had pointed out an acute shortfall of supply of equipment due to high demand and logistical constraints since the ongoing 21-day nationwide lockdown was enforced on March 25 to contain the spread of coronavirus disease (Covid-19) outbreak. The state-run company had also written to the Indian Railways citing the supply crunch.

The country is facing a massive shortage of PPE for doctors treating Covid-19 patients. The Delhi government had last week also accused the Centre of not responding to the shortage of the PPE in the national capital.

https://www.hindustantimes.com/india-news/railways-plans-to-make-low-cost-ppe-after-drdo-nod/story-sW4ZCPHN9kgf6OVx2IIj6J.html



Wed, 08 April 2020

रेलवे हर रोज तैयार करेगा एक हजार पीपीई किट, DRDO से मिली मंजूरी

- रेलवे को डीआरडीओ से पर्सनल प्रोटेक्शन इक्विपमेंट (पीपीई) को बनाने की मंजूरी मिली है।
- अन्य सरकारी एजेंसियों द्वारा भारतीय रेलवे के इस कदम का स्वागत किया जा रहा है।

नई दिल्ली: रेलवे ने हर रोज अपनी 17 कार्यशालाओं में अब लगभग एक हजार पर्सनल प्रोटेक्शन इक्विपमेंट (पीपीई) बनाने का लक्ष्य तय किया है। रेलवे को रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) से पीपीई को बनाने की मंजूरी मिली है। पीपीई रेलवे के अस्पतालों में कोरोना वायरस के इलाज में लगे रेलवे चिकित्सकों और पैरामेडिक्स को आवश्यक सुरक्षा उपलब्ध करायेगा।

रेलवे ने एक बयान में कहा, "रेलवे के चिकित्सकों और पैरामेडिक्स के लिए हर रोज इस तरह के एक हजार सुरक्षा उपकरण बनाने के लिए रेलवे में आवश्यक प्रबंध किये जा रहे है।" रेलवे देश के अन्य चिकित्सकों को भी 50 प्रतिशत पीपीई कपड़ों की आपूर्ति करने पर

विचार कर रहा है।

इन सभी के लिए जगाधरी से सामग्री खरीदी जा रही है जो पंजाब में कई बड़े कपड़ा उद्योगों के निकट स्थित है। यमुनानगर स्थित विक्रेता

से कच्चे माल का स्रोत तय करने का निर्णय लिया गया है और इसे कपड़ा मंत्रालय ने मंजूरी दे दी है।

बयान में कहा गया है, "आने वाले दिनों में, उत्पादन सुविधाओं में और तेजी आ सकती है। कोरोना वायरस से निपटने में लगी अन्य सरकारी एजेंसियों द्वारा भारतीय रेलवे के इस कदम का स्वागत किया जा रहा है।"

https://www.abplive.com/news/india/indian-railways-will-prepare-one-thousand-ppe-kits-everyday-approval-from-drdo-1345263





Covid-19: Railways to make 1,000 PPEs for railway doctors and paramedics

By Shreya Nandi

- The national transporter said it has got a nod from Defence Research and Development Organization (DRDO) to manufacture PPEs
- PPE kits are used by medical personnel working in isolation areas and intensive care units (ICU) to protect them from infections

Indian railways on Tuesday said it is gearing up to make 1,000 personal protective equipments (PPEs) for doctors and paramedics, treating and taking care of patients suffering from covid-19 at railway hospitals.

Towards this, the national transporter said it has got a nod from Defence Research and Development Organization (DRDO) to manufacture PPEs.

"A coverall produced by Jagadhari workshop was recently cleared by a DRDO lab, authorised for the purpose. Approved design and material will now be used for making this protective overall by other workshops under different zones," an official statement said, adding that 17 workshops will strive to contribute to the exercise of making PPEs.

"Railways is considering to supply 50% of the innovated PPE garment to other medical professionals of the country," it said.

PPE kits are used by medical personnel working in isolation areas and intensive care units (ICU) to protect them from infections. The government has urged domestic firms to manufacture and ramp up supplies to meet the increasing demand for PPEs. Last week, the union health ministry had said that the government has already place order for more than 1.5 crore PPEs, for which supply has already begun. On Monday, a batch of 170,000 PPEs coveralls arrived from China.

Material for all the coveralls is being procured centrally at Jagadhari, which is near several big textile industries in Punjab.

"Technical specifications of these PPEs are now ready, and material suppliers are in place. Now the production can start...This development is a big boost to equip our doctors and paramedics on the front line of this battle against covid -19," the ministry said.

"In the days to come, the production facilities can be further ramped up. The development of this overall and innovation by Indian railways is being welcomed by other government agencies engaged in the war against covid-19," it said.

https://www.livemint.com/news/india/covid-19-railways-to-make-1-000-ppes-for-railway-doctors-and-paramedics-11586270729348.html



Wed, 08 April 2020

Covid-19 outbreak: DRDO nod to made in Punjab N99 and N95 masks

In a major breakthrough by Punjab's industry, two firms, Oxiclear Private Limited of Ludhiana and Surgeine Safety Products, Hoshiarpur have got approval from India's elite Defence Research and Development Establishment (DRDE) Gwalior for manufacturing N99 and N95 masks which

currently are the most sought after masks around the world, particularly in the wake of outbreak of Covid-19.

Both these manufacturers are now eligible for supply of these masks to any government or private concern. In another big development, owners of these firms claim that they will be able to supply these

masks at almost 40 per cent cheaper rates than the existing masks available in the market. According to Gagandeep Singh, owner of Oxiclear said, "We are happy that N99 masks being made by our company has been approved by DRDE which is a big achievement for us, it could not have been possible without the support from Punjab government.

With this development now it has been certified that our masks meet all the requirements to combat the Covid-19. Since we are now eligible to supply these masks to government departments and hospitals we are going to scale up production and bring the costs down to such a level that without any compromise on the quality, our products will be priced at almost 40 percent less than the presently available products of big brands. We are hopeful that together with the support of all stakeholders we will be able to contribute extensively in the battle against Covid-19"

Notably ever since the lockdown began, a team comprising of additional chief secretary Vini Mahajan, director of industries and commerce Sibin C and all the general managers (GM) of district industries centres, particularly Mahesh Khanna GM of Ludhiana is working round the clock to ensure development of various medical kinds of medical equipment including Personal Protective Equipment (PPE), Hazmat Suits, special fabrics, low cost ventilators and masks etc within Punjab in order to meet the high demand of these crucial items within India to battle Covid-19.

https://www.defenceaviationpost.com/2020/04/covid-19-outbreak-drdo-nod-to-made-in-punjab-n99-and-n95-masks/



Wed, 08 April 2020

New weapons to combat coronavirus

Two critical defence ministry stakeholders, DRDO and OFB, have joined the war against Covid-19
By Sandeep Unnithan

With the coronavirus pandemic slowly increasing its footprint in India, the government is scrambling to meet the massive shortfalls in health infrastructure. Two critical defence ministry stakeholders —the Defence Research and Development Organisation (DRDO) and the Ordnance Factory Board (OFB) —have joined the war against Covid-19.

These organisations have been tasked with meeting shortfalls -- from ventilators to emergency care facilities and basic personal protection equipment like masks, clothing and gloves. The DRDO has a network of 46 laboratories while the OFB has 40 weapons and ammunition making factories. The DRDO — the nodal agency to protect soldiers from a biological weapons attack— has reoriented itself to fighting a pandemic. Chairman DRDO Dr V Satheesh Reddy says eight laboratories have been earmarked to producing personal protective equipment, masks and ventilator parts. "We have given the government a list of our technologies and our scientists are continuously rolling out new applications over the next few days," he says.

One of its labs in Delhi has developed portable backpack area sanitisation equipment.

The DRDO is working with industry to ramp up production capacity to 15,000 bio suits per day.

The Bhopal-based Defence Research and Development Establishment (DRDE), the nodal agency for protection from biological weapons, has been asked to test for Covid-19 cases.

The Kolkatabased Ordnance Factory Board has temporarily halted the production of arms, ammunition and equipment in nearly 40 factories across the country in keeping with the government rules during the 21-day lockdown. It is now producing PPE masks coveralls and hand sanitisers.

Three factories Aruvankadu, Bhandara and Itarsi — which usually produce explosives have produced 50,000 litres of hand sanitisers — equivalent to 5 lakh bottles — in less than a week.

The board has given emergency powers to 10 of its factories to procure raw materials to manufacture protective equipment. OFB Chairman Hari Mohan puts his organisation's role in perspective.

"OFB is meant to support the country in war – and today the country is at war with coronavirus, our medical fraternity are our soldiers now – it is our duty to support our soldiers, our health workers and our police forces."

(Courtesy of Mail Today).

https://www.dailyo.in/variety/drdo-ofb-coronavirus-covid-19-ordnance-factory-board/story/1/32671.html

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Covid-19 outbreak: Textile Ministry announces new PPE rules

The ministry has laid down new norms, which require a Unique Certification Code called UCC-Covid19 and a tamper-proof sticker in indelible ink specifying details of the manufacturer By Amrita Madhukalya

New Delhi: The Union Ministry of Textiles has announced a new regulatory framework for the production of personal protective equipment (PPE) units after reports emerged that Indian manufacturers, who failed laboratory tests, have sold their rejected products to a section of private hospitals.

The ministry has laid down new norms, which require a Unique Certification Code called UCC-Covid19 and a tamper-proof sticker in indelible ink specifying details of the manufacturer.

The ministry issued a notification to this effect on April 6, saying that the code would apply to both PPE garments and fabric that pass the laboratory tests, as stipulated by the South India Textile Research Association (SITRA) and the Defence Research & Development Establishment (DRDE). The code will record the type of garment, its test procedure and also the date of the test. The certification will be valid for a fixed time frame and both SITRA and DRDE will preserve the sample sent by the manufacturer, said the notification, accessed by HT.

The move, ministry officials said, was to tighten the production of PPE units by Indian manufacturers in line with the specifications of the World Health Organisation (WHO) and the Union Ministry of Health and Family Welfare (MoHFW). Approvals have been given by the Coimbatore-based SITRA, an autonomous body under the ministry, and Gwalior-based DRDE.

The notification stated that in case of coveralls a manufacturer needs to print in indelible ink or in tamper-proof sticker detail such as the name of the maker, code, test standard, batch number and order details.

A ministry official, on condition of anonymity, told HT that the move was prompted by media reports that some manufacturers, whose products were rejected by SITRA and DRDE, were found to be supplying their units to a section of private hospitals. The ministry's directive has been sent to states as well.

Nihar Ranjan Dash, a joint secretary in the ministry, said that the certification primarily concerns coveralls and fabric provided by certain manufacturers of PPEs. "The directive doesn't

concern masks, as they're certified by the Bureau of Indian Standards. We relied on imports of masks for all this while, and their specifications were of international standards," said Dash.

The tightening of norms would help Indian manufacturers prepare for the global market, he added. The current capacity of the Indian industry is to manufacture 10,000 PPE units per day, but Dash said that in about three months, the country is likely to produce three lakh units.

An official of one of the testing agencies told HT on condition of anonymity that the two specific tests that are applied are the synthetic blood penetration for overalls and bacterial efficiency as far as masks are concerned. "A severe shortage of N-95 masks has been a cause for concern, as there are just a handful of manufacturers in the country," said the official.

Since India began domestic production of PPE in March owing to the spread of the coronavirus disease (Covid-19), these two testing agencies have approved 18 manufacturers to produce PPE units with non-woven textiles such as masks and coveralls. Later, the agencies approved 20 more manufacturers of the fabric. Only 50% of the manufacturers passed the test at the outset, the official said. "However, the success rate has come up to 80% now," he added.

M Rajaa of Coimbatore-based Saastha Textiles, one of the approved manufacturers of waterproof, laminated thermoplastic polyurethane and thermoplastic elastomers fabric in knitted, woven and non-woven fabric used in PPE units, told HT that the fabric needs to have a certain type of lamination to ensure that blood and virus do not contaminate a health care worker. "We also need to use only polypropylene virgin material to ensure that the material is protective and some manufacturers are also using reprocessed materials," said Rajaa.

Parag of Sai Synergy, another manufacturer of PPE units, said that the Indian Navy has ordered their products earlier and they always carry a sticker. "The sticker has to be put during the manufacturing process and cannot be put thereafter," he added.

https://www.hindustantimes.com/india-news/covid-19-textile-ministry-announces-new-ppe-rules/story-wAeOmca9W1BrLr8JaAvQ2J.html

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Approved PPE kits to have unique code and stickers

By Amrita Madhukalya

Manufacturers of personal protective equipment (PPE) will now need to mark their products with a unique code and tamper-proof stickers, the textile ministry has said. This comes after reports emerged that unapproved products were being sold in the market.

Healthcare workers are at most risk of infection as they come in close contact with Covid-19 patients. With a global shortage of PPE that is supposed to protect them, the demand for such equipment has grown exponentially in hospitals and among sanitation workers who are called on to disinfect high risk areas.

The move, ministry officials said, was to tighten the production of PPE among Indian manufacturers and producers in line with the specifications of the World Health Organisation and the union ministry of health and welfare.

The ministry, in a notification issued on April 6, said the Unique Certification Code (UCC-COVID19) will apply to PPE garments and fabric which pass the laboratory tests laid down by the South India Textile Research Association (SITRA) as well as the the Defence Research & Development Establishment (DRDE). The Code will record the type of garment, its test procedure, date of test. The certification will be valid for a certain time period and both SITRA and DRDE will preserve the sample sent by the producer, said the notification, accessed by HT.

Approvals for the manufacturing of PPEs and the fabrics used in making them are given by the Coimbatore-based SITRA, an autonomous body under the textiles ministry and the Gwalior-based DRDE.

Another directive was that in the case of coveralls, the manufacturer will print in indelible ink or in a tamper-proof sticker details such as name of producer, code, test standard, batch number, order details.

A ministry official, on the condition of anonymity, told HT that the move was prompted by news reports of some of those rejected by SITRA and DRDE supplying their units to private hospitals. The directives have now been sent to states, too.

Nihar Ranjan Dash, joint secretary at the textiles ministry said that the certification mainly concerns coveralls and fabric provided by certain manufacturers to producers of PPEs. "The directive does not concern masks, as they are certified by the Bureau of Indian Standards. All this while, as we relied on imports, the specifications were of international standards," said Dash.

He added that the tightening of norms will also help Indian manufacturers prepare for the global market. The current capacity of the Indian industry is 12,000 units per day, but Dash said that in about three months, India has the production capacity of 300,000 PPEs per day.

An official of one of the testing agencies told HT, on the condition of anonymity, that the two specific tests that are applied are the synthetic blood penetration test in the case of coveralls and the bacterial efficiency test in the case of masks. "A severe shortage of N95 masks has been a concern as there are just a handful of producers," said the officials.

Since India began domestic production of PPE in March, these two testing agencies have approved 28 manufacturers with non-woven textiles such as masks and coveralls, and additionally approved 22 manufacturers of the fabric that is supplied to some of these producers.

The official of the testing agency said that in the beginning, only 50% of manufacturers passed the test. "The success rate now is over 80 percent," the official said.

M Rajaa of Coimbatore-based Saastha Textiles, one of the approved manufacturers of waterproof, laminated thermoplastic polyurethane and thermoplastic elastomers fabric in knitted, woven and non-woven fabric used in PPE units, told HT that the fabric needs to have a certain type of lamination to ensure that blood and virus do not contaminate a healthcare worker. "We also need to use only polypropylene virgin material to ensure that the material is protective and some manufacturers are also using reprocessed materials," said Rajaa.

Parag of Sai Synergy, a producer of PPEs, said that their products have been ordered by the Indian Navy before and hence their products carry a sticker. "The sticker has to be put during the manufacturing process and cannot be put there after," he said.

<u>https://www.hindustantimes.com/india-news/approved-ppe-kits-to-have-unique-code-and-stickers/story-ERWavSWn1Fdvrw1xNyW03J.html</u>