

# **FACTORY VISIT REPORT**

**White Products & Electronics Limited**

**Ithata, Gazipur, Dhaka**



**Infrastructure Development Company Limited**

**22 August 2018**

## **1. BACKGROUND**

White Products & Electronics Limited (RANGS), has been awarded approval for six different models of solar batteries by several TSC (technical Standard Committee) meeting of IDCOL.

They have completed the required ISO 14001:2004 and OHSAS 18001:2007 compliances respectively. To assess the actual compliance scenario, Dr. Ahmedul Hye Chowdhury, Environmental Specialist, IDCOL visited the battery manufacturing plant and its recycling plant according to the requirement of ESMF of IDCOL on 22 August, 2018.

## **2. OBJECTIVE OF THE VISIT**

Already been mentioned that the objective of the visit was to assess the actual progress accomplished by RANGS to meet the requirement of ISO 14001, OHSAS 18001 and ESMF of IDCOL as well.

## **3. Brief Description**

RANGS is located at Itahata, Gazipur, Dhaka. The factory comprises an area of about 222.57 Decimal of purchased land. There are 203 workers including the management officials employed in the plant. At present it operates in two shifts with duration of 8 hours each. It produces about 9000 batteries every month. RANGS Ltd. is facilitated with modern battery manufacturing machineries and skilled manpower.

## **4. ESMF compliance scenario at battery manufacturing facility**

RANGS was found to practice the requirement of ISO 14001 and OHSAS 18001 standards at a satisfactory level. There are some room for improvement in some areas like; safety signing, aisles marking, Eye shower improvement, MSDS for chemical/flammable liquids storage area. Over all housekeeping was found reasonable (Please see the attach annexure). RANGS has started the practice of keeping records of compliances.

ETP is one of the most important concerns for battery manufacturing industries to mitigate effluent pollution. RANGS has established a well-designed ETP with capacity of 10 m<sup>3</sup>/day, which seems to be adequate to meet the demand. RANGS has also set up air treatment plant (ATP) to protect the health hazards during charging. The capacity of ATP (rotary) is 15 tons per day and rotary run 25 days in a month.

### **4.1 Observation**

- Exits / Evacuation routes need to be visible, marked and maintained clear (floor was covered by the dust) from working areas
- Chemical and flammable liquid (fill up drums and empty drums) should store in proper manner with sufficient ventilation systems.
- Employees need proper training regarding the PPE.
- Safety sign need to increase in the facility.

## Annex 1- Photographs of RANGS battery facilities



Production & Formation Section



Evacuation Plan



Safety zone for Gas Cylinders



Shower & Eye wash

## ETP and ATP Unit



**FACTORY ENVIRONMENTAL, HEALTH & SAFETY CHECK LIST**

Name: RANGS BATTERY LIMITED

Date: 22-08-2018

Question	Yes	No	Remarks
<b><i>Mandatory Questions</i></b>			
<b><i>Name of the MR:</i></b> Md. Ariful Islam			
<b><i>His/her qualification:</i></b> MSc (IPE), MBA.			
<b><i>Management review report / minutes:</i></b> Held on			
<b><i>Budget Allocation:</i></b> Not specified			
<b><i>Training report:</i></b> Maintained (There is some room to improve)			
<b><i>DOE Clearance Certificate:</i></b> Up to date			
<b><i>Acid License:</i></b> 30 June 2018			
<b><i>EMS &amp; OHASAS Certificate:</i></b> Reviewing the certificate			
<b><i>Civil Defense:</i></b> 30 June 2018			
<b><i>ETP design and discharge water QC report:</i></b> Maintained			
<b><i>Exits / Evacuation routes</i></b>			
Are exit signs, evacuation routes illuminated, visible, marked and maintained clear from work areas?	√		Need to maintain properly.
Is evacuation plans posted in local language in a prominent place where they can be easily read, with 'You are here' clearly marked?	√		
Do evacuation plans match the floor layout? Also, areas in front of Exits marked with "KEEP CLEAR" markings and maintained clear.	√		
<b>Aisles</b>			
Are aisles clearly marked and spacious and maintained clear of any obstruction?	√		There are some obstruction have been observed during the visiting time. Recommend to keep the aisles marked and clear
Emergency lights maintained properly to provide adequate illumination?	√		
Are all Emergency lights tested monthly and records of test maintained?	√		

<b>Fire Extinguishers/ Hose Reel / Hydrant</b>			
Is there adequate number of fire extinguishers available and the location are clearly marked? Does it maintained clear of obstruction?	√		
Are extinguishers visually checked monthly and control tags maintained?	√		
Are fire extinguishers inspected annually by an outside professional agency;	√		

<b>Emergency Preparedness</b>			
Does the facility have a documented emergency preparedness program?	√		Need to improve
Does the facility conduct evacuation drills and maintain records?	√		
Does the facility maintain test records of fire alarms and Phone numbers of local fire dept(s)/ factory management and Hospitals Ambulance & Police easily available / posted?	√		
Are Assembly areas easily accessible and maintained clear?	√		

<b>Question</b>	<b>yes</b>	<b>No</b>	<b>Remarks</b>
<b>Medical care / First Aid</b>			
Does the First Aid kits provided in all work areas with locations highlighted and easily accessible? Are medicines being checked to ensure that expired medicines are not being administered?	√		Well maintained.
Does the First Aid kits kept unlocked or if the kits locked, are the keys available within close proximity?	√		
Is there adequate number of employees been trained in First Aid by a recognized organization and the certificates checked to ensure the validity?	√		
Does factory conduct checks to ensure that if any first-aid trained employee has left the organization he/she is replaced with another such trained person?	√		

<b>Lead alloy and Chemical Storage Area</b>			
Is there any appropriate warning signs displayed?	√		Need to improve more
Is there an effective ventilation system to discharge fumes?	√		
Is there any effective secondary containment system for liquid chemicals to avoid spillage on floor? Does the floor maintained clean and free of chemical spillage?		√	Empty acid drums and flammable drums were left unsecured manner. Which can create a major accident inside of the facilities. Empty acid and flammable liquid drums need to be stored into a secure place.
Is MSDS (Material Safety Data Sheet) posted in areas where chemicals are stored / being used?		√	Should be hanged in front of the store door
Is there any appropriate PPE (Personal Protective Equipment) are available and being used in the chemical storage and usage areas?	√		All personnel doesn't maintained the PPE during the working time because there is some lacking of knowledge
Is entry restricted in the chemical storage area?	√		Chemical storage area are secured. Recommend for the security sign and need to be well ventilated.
Does hazardous sign or label being used in all drums, containers, and dispensers clearly labeled?		√	Not in proper manner.

**Eye Wash/shower**

Is there any functional eye wash station available near the chemical storage/usage area/working area?	√		
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<b>Question</b>	<b>yes</b>	<b>No</b>	<b>Remarks</b>
<b>Electrical Safety</b>			
Are all electrical switches labeled in English & local language?	√		
Are power-generators suitably earthed?	√		
Is all electrical maintenance carried out, logged?	√		
Are there any loose wires / damaged switch-gear / unplugged connections/ open junction boxes / taped joints etc?			
Are appropriate fire extinguishers installed near panel boards?	√		
Are Exhaust pipes of Power generators insulated?			
Are rubber mats provided in front of all Electric Panel Boards?	√		
Is the Power Generator room maintained free of waste items?	√		

<b>Question</b>	<b>yes</b>	<b>No</b>	<b>Remarks</b>
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<b>Personal Protective Equipment</b>			
Are mesh gloves provided to Cutting machine operators? Are they being used?	√		
Are appropriate gloves / masks / eye protection provided for workers in stain removing operations? Are they being used?	√		
Are ear plugs provided to thread sucking machine operator's power generator operators? Are they being used?		√	Provided by the authorities but workers does not follow
Are Appropriate PPEs provided to workers in the washing section? Are they being used?	√		
Is eye protection provided to button machine operators? Are they being used?	√		
<b>Accident Register are updated</b>			
Are respiratory masks provided to sewing machine / over lock machine operators where fabric dust is generated? Are they being used?	√		
<b>Machinery</b>			
Are finger guards installed on snap button machines? Are they being used?	√		
Are exhaust fans installed at safe heights to avoid injury?		√	There is no exhaust fan used in the facilities but lots of windows
Are safety devices in working condition?	√		
Are noise levels in work areas within the desired norms?	√		
<b>ETP and ATP</b>			
Are all discharges (water) within the parameters defined by the country's Environment laws?	√		
Are all discharges (air samples) within the parameters defined by the country's Environment laws?		√	ATP didn't constructed.
<b>Dining and Kitchen Facilities</b>			
Are Kitchen & Dining area floors maintained clean?	√		
Is adequate seating arrangement provided?	√		30 persons can seat together at a time
Is cooked food kept covered?	√		
Are those serving food using appropriate gloves?	√		

Are fire extinguisher's installed near cooking areas?	√		
Is potable drinking water provided?	√		
Are hand wash and utensils washing areas well maintained?	√		
<b>Bathrooms / Toilets</b>			
Are the number of toilets adequate, marked and segregated for both men and women?		√	
Are wash rooms/ toilets well maintained and ventilated?		√	
Is running water available?		√	
<b>House-Keeping</b>			
Are waste chemical removed regularly?	√		
Are floors cleaned regularly to remove dust and garbage?			
Are ventilation system check periodically?	√		
Is garbage appropriately disposed off?	√		
<b>Storage</b>			
Are Chemicals, flammable liquids appropriately stored away from rain and sunlight in well ventilated areas with entry restricted to authorized personnel only?		√	Storage area need to be separated and restricted
Are 'No Smoking' signs and appropriate Firefighting equipment installed in storage areas?		√	