

**GOVERNMENT OF INDIA
NORTH EASTERN COUNCIL SECRETARIAT
NONGRIM HILLS, SHILLONG - 793003**

Subject: Forwarding of Inspection Report.


In inviting a reference to the above subject, as requested by the concerned Sector, the physical inspection of the project "Setting up 1000MT Capacity Multipurpose cold Storage at Khowai," was carried out in Tripura. The inspection report duly signed by the Consultant (CE), Consultant (EE) and Consultants (ME) NEC is enclosed herewith. The project was sanctioned on 28th December, 2011 at a total cost of Rs. 300.40 lakhs (NEC's share is Rs. 270.036 lakhs and State share is Rs. 30.004 lakhs). Two installments totaling Rs. 198.93 lakhs were released by the NEC.

The inspection, inter alia, mentioned that:

- The project of "Setting up 1000MT Capacity Multipurpose cold Storage at Khowai" in Tripura was sanctioned on 28/12/2011 and the target date of completion was one year from the date of Sanction. The implementing department informed the inspection team that they had received the first installment on 11/12/2013. However the construction work started on September 2013. Tender was floated on 22/10/2012 and the work order was given to the contractor on 03/01/2013.
- During interaction with the officials of the implementing agency, it was found that the implementing agency was planning to inaugurate the cold storage before 31st March 2017, so the farmers of the adjoining areas would be benefited because as per the information, potato has the highest production in Tripura so with the construction of cold storage it will boost the rural economy of the adjoining area and also will generate more revenue for the state.
- The inspection team found that the implementing agency had completed the construction of Main building, Office room, machine room & D.G.set room, drying shed and condenser tank.
- Moreover it was found that Refrigeration equipment (Plant & machinery) already installed.
- The Implementing Department informed that the pending works would be done only after the release of the Final Installment.
- The Project has also suffered from time overrun.

This is for information and necessary action by the concerned Sector.

Enclosure: As above.


(W. Synrem)
Economic Adviser (E&M)

U.O.No.NEC/EM/INSPECTION/Agri&Allied/2012/28/Vol. 1

Dated: the 10th 03rd 2017

To,

Adviser (Agri & Allied), NEC

Signature 10/3/17

Copy to,

1. P.S to Planning Adviser, NEC for kind information of Planning Adviser
2. PSA, NIC-NEC (Shri M. Nongkhlaw) for uploading the report with photograph on NEC website.

Report of the inspection carried on 17 / 02 /2017 for the NEC funded project “Setting up 1000MT Capacity Multipurpose cold Storage at Khowai”

A joint inspection of the above project was carried out by an official of NEC Secretariat, Shillong and Department of Agriculture, Govt. of Tripura on 17 /02/ 2016 . The list of the officials present during the inspection is enclosed as Annexure-I.

(I) BACKGROUND:

Name of the project:	Setting up 1000MT Capacity Multipurpose cold Storage at Khowai”
Location	Khowai in Tripura
Implementing Agency:	Department of Agriculture ,Govt.of Tripura
Date of Sanction:	28th December, 2011.
Cost of Project:	Rs. 252.02 lakhs (Previous) Rs. 300.40 lakhs (Revised)
NEC Share (90%):	Rs. 270.036 lakhs
State Share (10%)	Rs. 30.004 lakhs
NEC Share released & Dates	1 st installment of Rs.90.79 lakhs on 28/12/2011 2nd installment of Rs.108 .14 lakhs on 29/05/2015
Total Amount Released:	Rs.198.93 lakhs.
Balance amount to be released by NEC	Rs.71.43lakhs.
State Share released	Rs.22.11 lakhs (UC submitted)
Balance amount to be released by State	Rs7.894. lakhs.
Status of UC for 1 st installment	UC for Rs. 90.79 lakhs submitted on 26 /09/2014.
Status of UC for 2 nd installment	UC for Rs. 108.14 lakhs submitted on 21 /04/2016
Target Date of Completion	1 (One) year from the time of project sanctioned/release of fund

(II)Aims/Objectives of the Project: This project is intended to accommodate surplus production of potato ,fruits and vegetables at Khowai and adjacent areas.

III) Observations/ Status of works as on 17 /02/2017 :

The following observations were made on the basis of the visit at Cold Storage at Khowai ,West Tripura and interactions with the officials of the implementing agency.

Sl.No.	Scope of Work as per DPR	Remarks based on site Verification
1.	Designing of Multi purpose cold storage of RCC structure with inclined flat roof of 1000 MT capacity (1 chamber of 750 MT for potato,1 chamber of 150 MT capacity and 1 chamber of 100 MT capacity for fruits & vegetables and pre cooling chamber of 20 MT capacity), drying shed of 250 sqm of pith roof , office room of 30 sqm of flat roof, DG set room of 30 sqm (flat roof), machine room of 80 sqm (flat roof) etc.with architectural and detailed structural working drawing containing complete specification as per state PWD/CPWD/Latest IS Code/Building Code/cold storage norms and execution of civil works /structural works including insulation.	During inspection it was found that Implementing agency had completed the work.
2.	Development of site of cold storage by earth cutting and Construction of bituminous mastic approach road from main road to main entrance of cold storage and internal double layer brick soiling road of 3.5 mt. width with proper sub-grade to machine room and office room, plinth protection , drain etc.	During inspection it was found that Implementing agency had completed the work.
3.	Civil work:- Main building,Office room,machine room& D.G.set room,dying shed,condenser tank,wooden rack,insulation,boundary fencing. <u>Cold Storage Chambers</u> <u>Condenser Tank: Size:(6M x 9M x2.1 M ht.)</u> <u>Drying Shed:- 250 sqm</u> <u>Office : 30 sqm</u> <u>Machine room : 80 sqm</u>	During inspection it was found that Implementing agency had constructed Main building,office room,machine room& D.G.set room,drying shed,condenser tank. It was found that insulation work was not completed . The implementing agency stated that the boundary fencing would be completed after getting the final installment. Cold Storage Chambers Size:37.8 x 15.9m Condenser Tank: Size:(5.2M x 8.1M x2.1 M ht.) Drying Shed &Office : 29.92sqm Machine room : 76 sqm
4.	Refrigeration equipment (Plant & machinery)	<ul style="list-style-type: none"> • During inspection it was found that Implementing agency had installed 7 stands atmospheric type Ammonia condenser. • During inspection it was found that Implementing agency had installed 5 H.P. 2 nos. Condenser water pump set and One no. of

		<p>3 H.P. water pump set was installed in the machine room and it was commissioned and was found in running condition.</p> <ul style="list-style-type: none"> • H.P. Receiver was installed . • Oil separator 3 nos. also installed. • 5 nos.of potato chamber created. • 2 nos.of vegetable chamber created. • 1 no.of fruit chamber created.
5.	Electrical work: Internal and External electrification	During inspection it was found that Implementing agency had done internal electrification .But till now they had not done external electrification. Moreover it was also found that insulation of suction pump not yet completed.
6.	Fire fighting arrangement	During inspection it was found that installation of Fire fighting arrangement not yet completed. It was found that Implementing agency had installed water pump set but water outlet work, installation of standard equipment box covered by glass still not fitted.
7.	<p>Captive Power: Supply and installation of D.G. set -2 nos. DG Capacity 75KVA(Kirlaskar/Cummins make)-one no. 50 KVA((Kirlaskar/Cummins make)-one no.</p>	<p>During inspection it was found that Implementing agency installed D.G. set-2 nos. It was found that one D.G. set was having capacity of 82.5 KVA and another one was 62 KVA, The implementing agency informed that due to load demand they had procured both the DG set . It was also noticed that both the D.G.set was made by Greaves. Implementing agency had informed the visiting inspection team that both the D.G. set till not commissioned. It was also found that earthing work i.e. body earthing and alternator earthing not yet done.</p>
8.	Deep Tube well of 4" X 6" size with submersible pump and all fittings	During inspection it was found that Implementing agency had made deep tube well and it was found that pump was in fully functional.

9.	Electrical sub-station, cost of Transformer including Civil works	Work had completed .During inspection it was found that neutral earthing and body earthing for the was not done properly. It was suggested to do the work according to technical specification followed by CPWD for transformer earthing.
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(IV) Overall Remarks and Suggestion:-


The project of “Setting up 1000MT Capacity Multipurpose cold Storage at Khowai” in Tripura was sanctioned on 28/12/2011 and the target date of completion was one year from the date of Sanction. The implementing department informed the inspection team that they had received the first installment on 11/12/2013. However the construction work started on September 2013. Tender was floated on 22/10/2012 and the work order was given to the contractor on 03/01/2013. The inspection team found that the implementing agency had completed the construction of Main building, Office room, machine room& D.G.set room, drying shed and condenser tank. Moreover it was found that Refrigeration equipment (Plant & machinery) already installed. Deep Tube well with submersible pump installed it was functioning well. Internal electrification also completed but external electrification not yet completed. The pending works were commissioning of DG set, external electrification works , installation of proper earthing for both the Transformers and D.G set, insulation work for suction pump, fitting of fire fighting arrangement, boundary fencing work, final painting of the whole building interior and exterior. Implementing agency stated that after getting the final installment they would do the remaining portion of works as early as possible.


During interaction with the officials of the implementing agency, it was found that the implementing agency was planning to inaugurate the cold storage before 31st March 2017 ,so the farmers of the adjoining areas would be benefited because as per the information, potato has the highest production in Tripura so with the construction of cold storage it will boost the rural economy of the adjoining area and also will generate more revenue for the state .The following data show the area production of potato under khowai District during the year 2016-2017 given by the implementing agency.



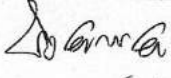
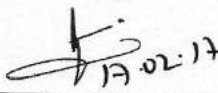
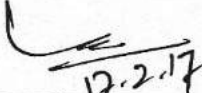
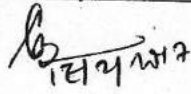
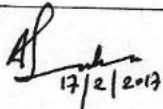

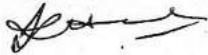
Sl. no	Name of crops	Khowai District													Total	
		Agri/Horti Sub-div.	TLS		PDB		KHW		TLM				KYP		Tar	Ach
			Block	Tar	Ach.	Tar	Ach	Tar	Ach	MNG		TLM		Tar		
1	Potato	Area	95	90	100	90	140	150	94	94	100	110	89	90	618 (hect)	624 (hect)
		Prodn	900	1980	520	1980	1800	3300	1000	2068	500	2420	500	1980	9720 (mt)	13728 (mt)

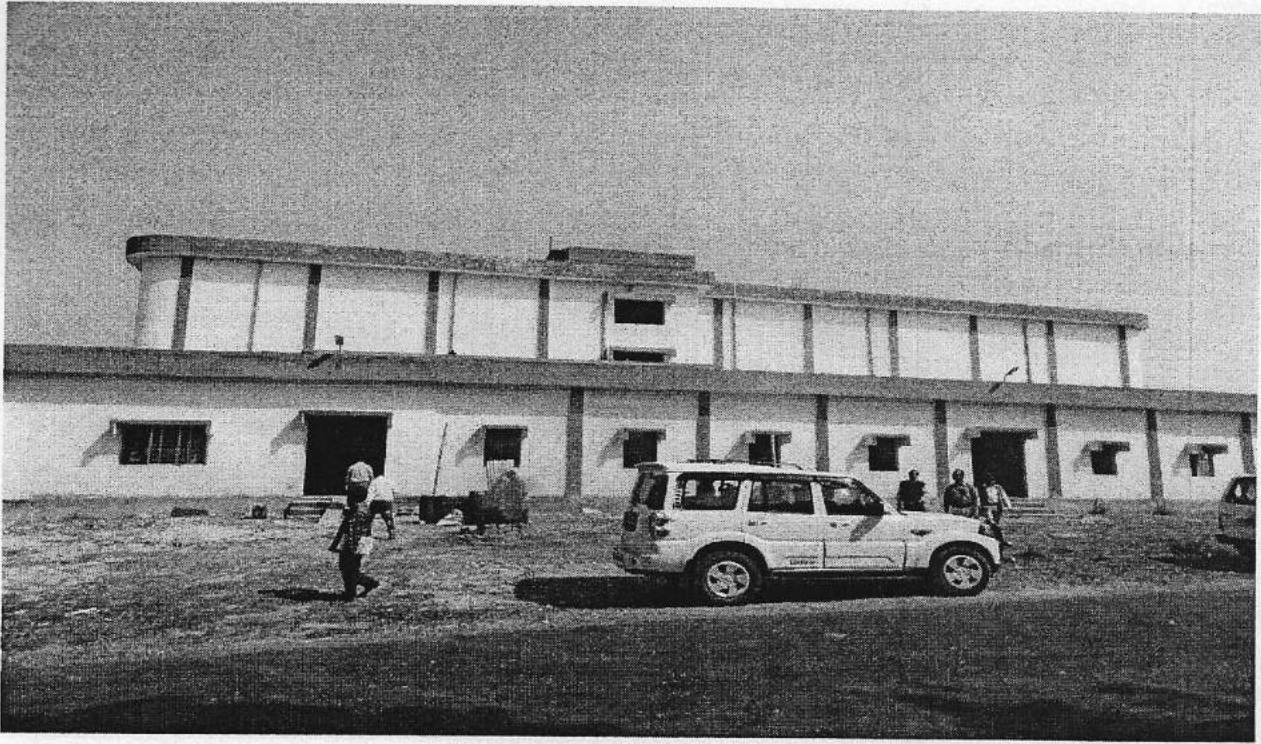

 (Liza R Hek)
 Consultant (ME)
 NEC Secretariat, Shillong


 (Abhijit Sarkar)
 Consultant (EE)
 NEC Secretariat, Shillong


 (Jeriel Nicholas J. Kharbhih)
 Consultant (CE)
 NEC Secretariat, Shillong

List of officials who were present during the inspection of NEC funded project "Setting up of 1000MT Capacity Multipurpose cold Storage at Khowai District, Tripura" on .

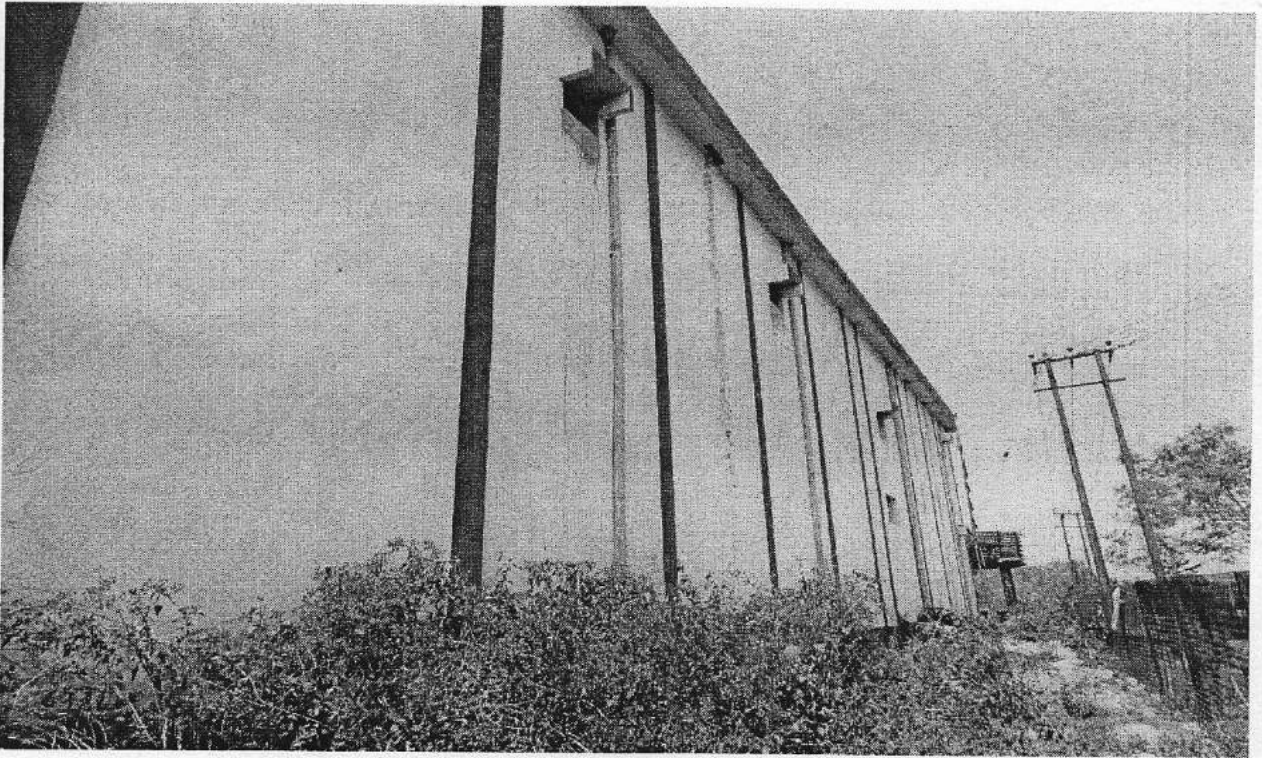
Sl. No.	Name	Contact No. & Email id	Designation & Organisation/Department	Signature
1.	ARUN DEB BARMA	9436125378 debbarma.arun@gmail.com	Addep. Director, Horticulture.	
2.	Ajay Jantia	9436125378 ajayjantia@gmail.com	EE, West - Dept. of Agriculture	 17.02.17
3.	Falgun Debbarma	9774318481 falgun0123456789@gmail.com	Assistant Engineer (Mech)	 17.2.17
4.	Chandra Debbarma	9436501362 chandra.agn@gmail.com	S.A. Khowai	 17/2/2017
5.	ABHISIT SARKAR	8132853127	Consultant (EE) NEC, Shillong	 17/2/2017
6.	Prad Khorbhit	9436535665	Consultant (CE)	
7.	Diga. R. Hill	9774335092	Consultant (ME)	
8.				
9.				
10.				



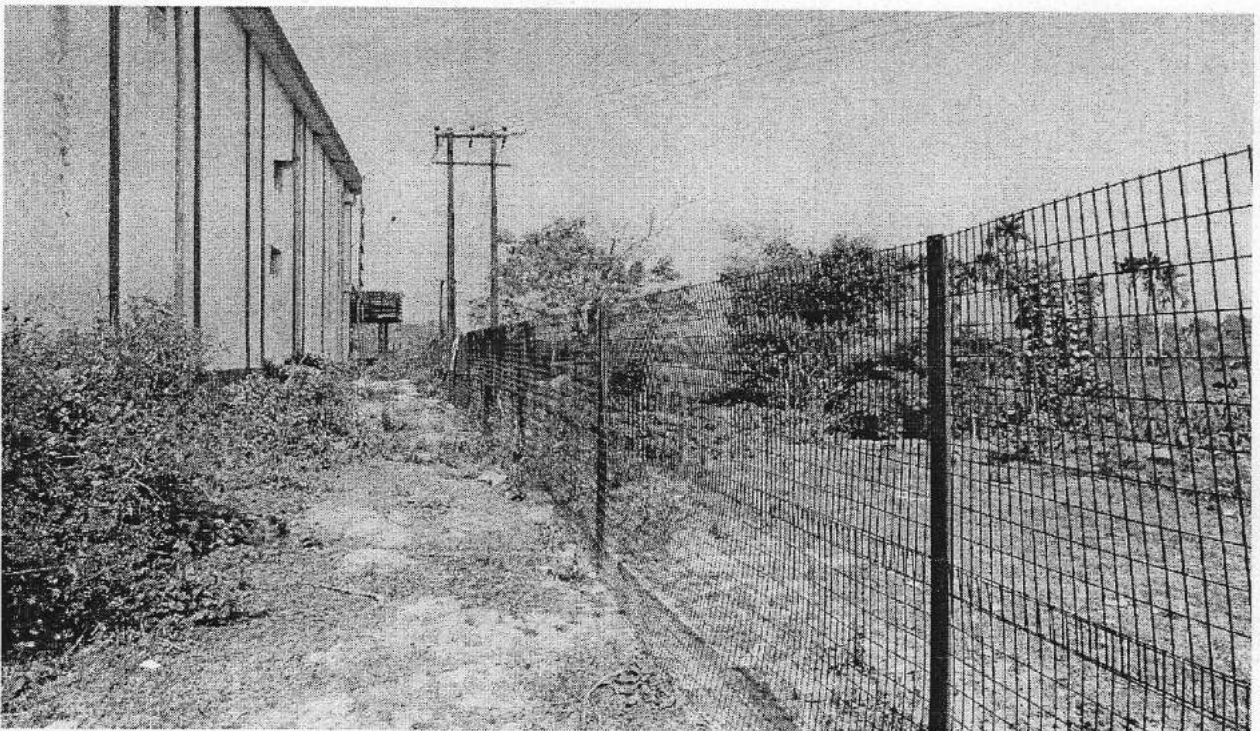
View of 1000 MT Capacity Multipurpose cold Storage at Khowai ,Tripura



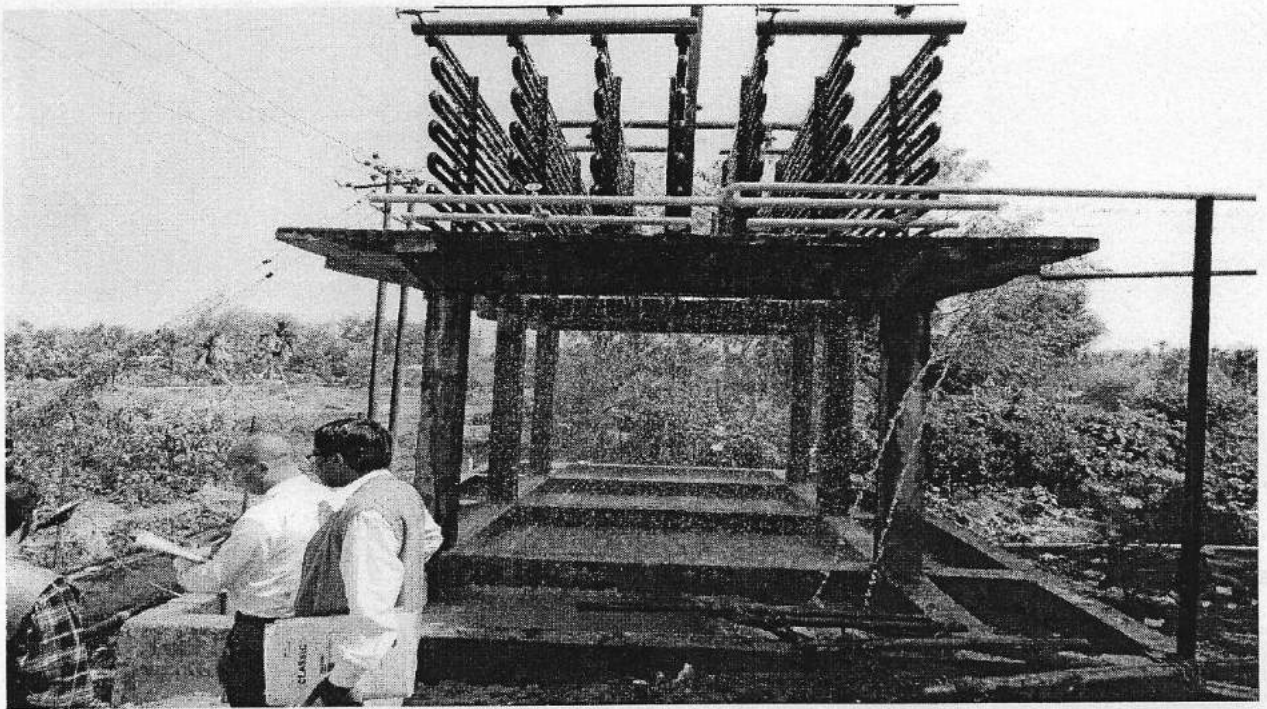
Inspection Team Infront of the cold Storage at Khowai ,Tripura



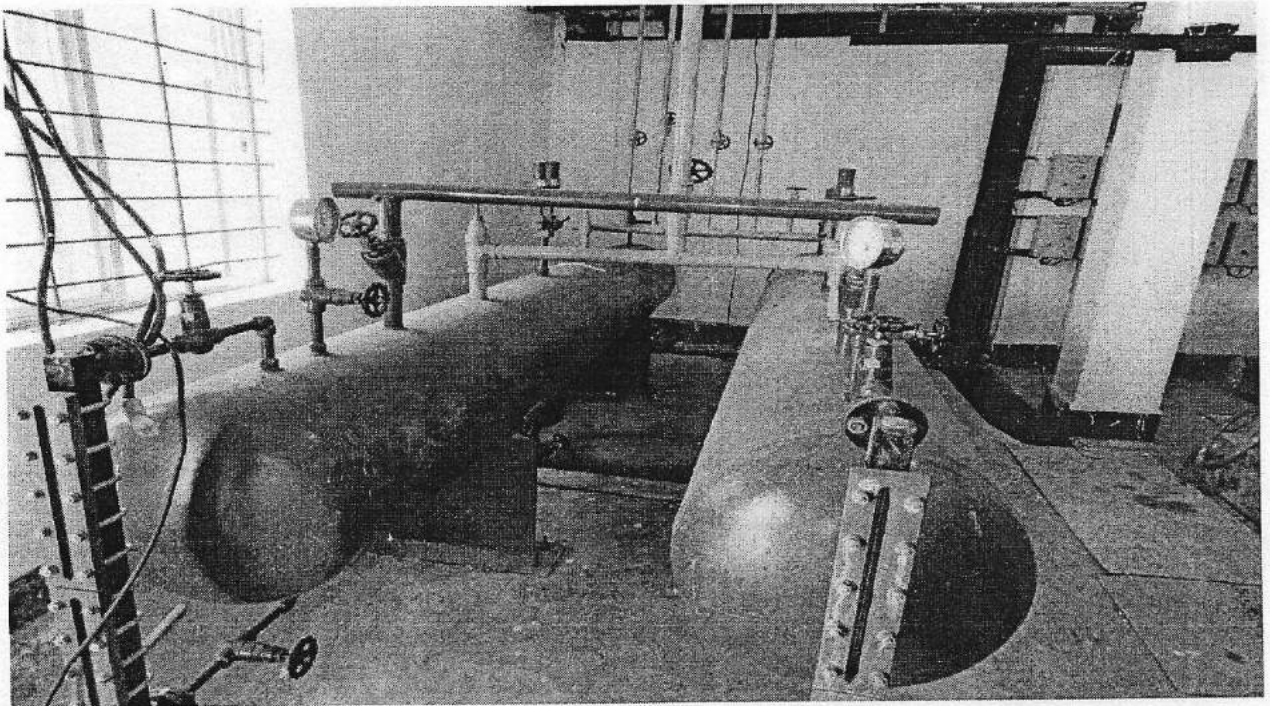
View of back side of the cold Storage at Khowai ,Tripura



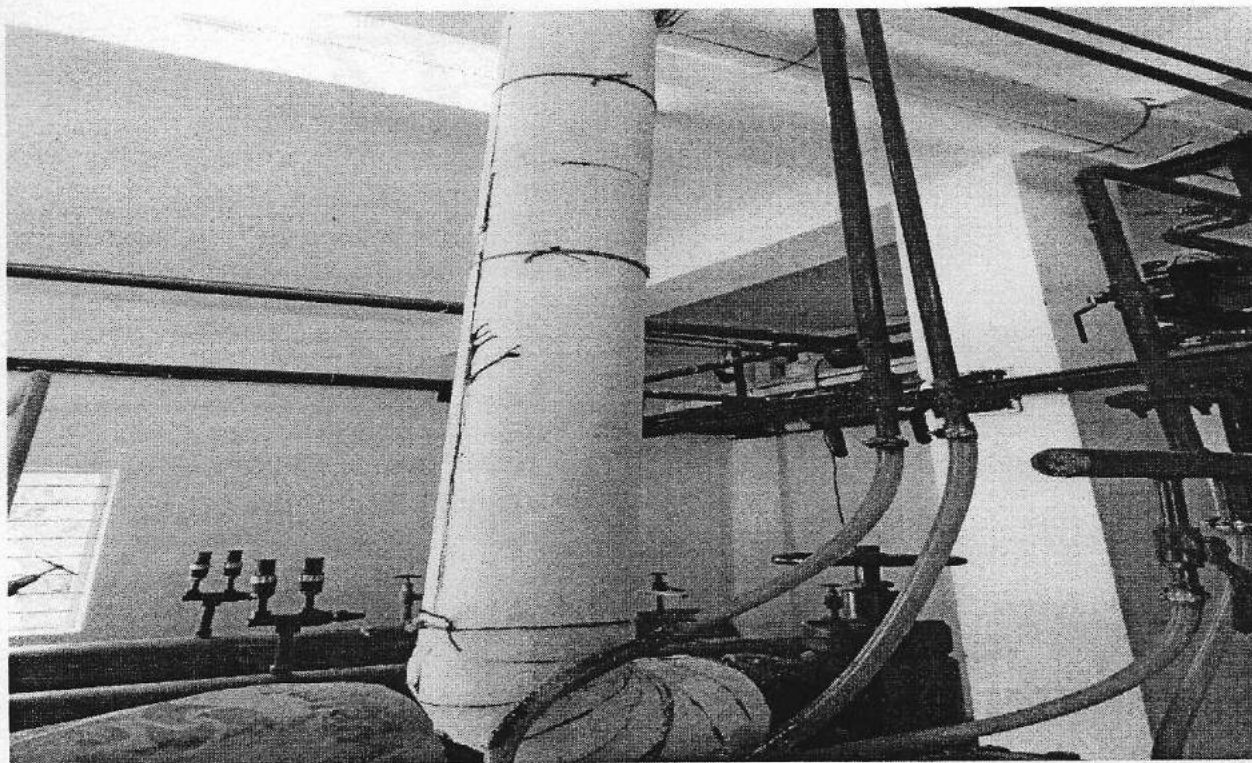
View of fencing at the cold Storage at Khowai ,Tripura



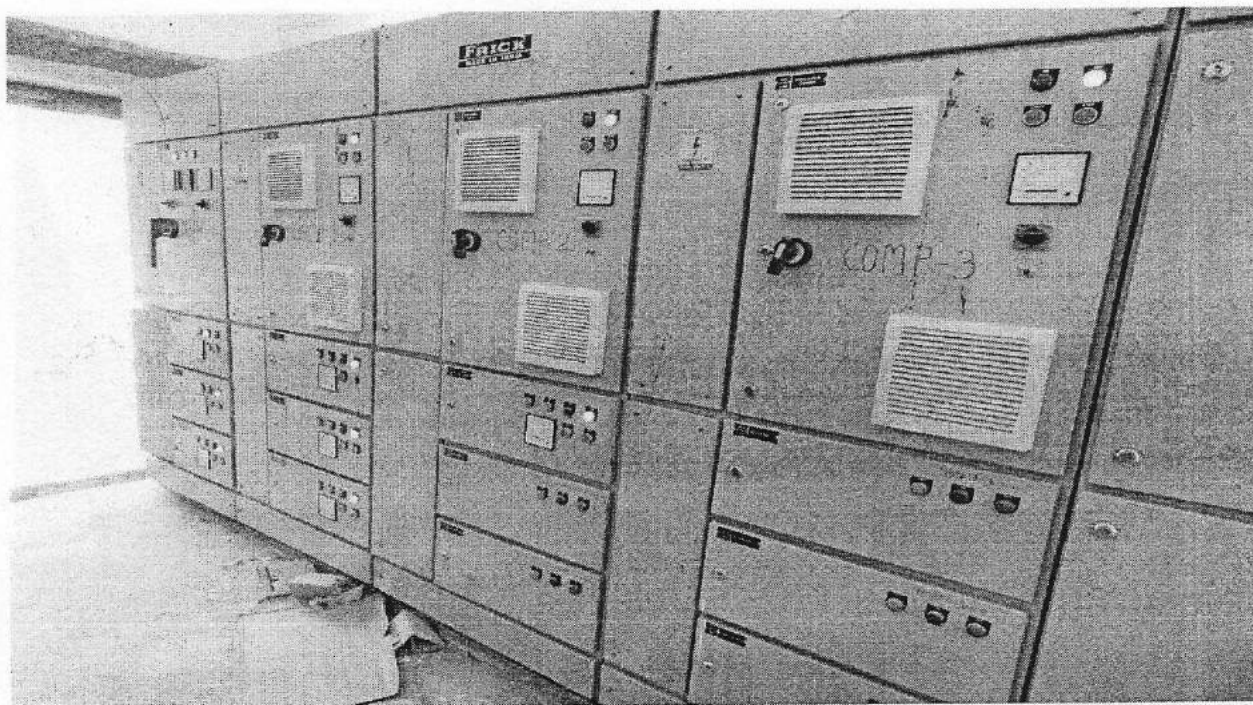
View of ammonia condenser at the cold Storage at Khowai , Tripura



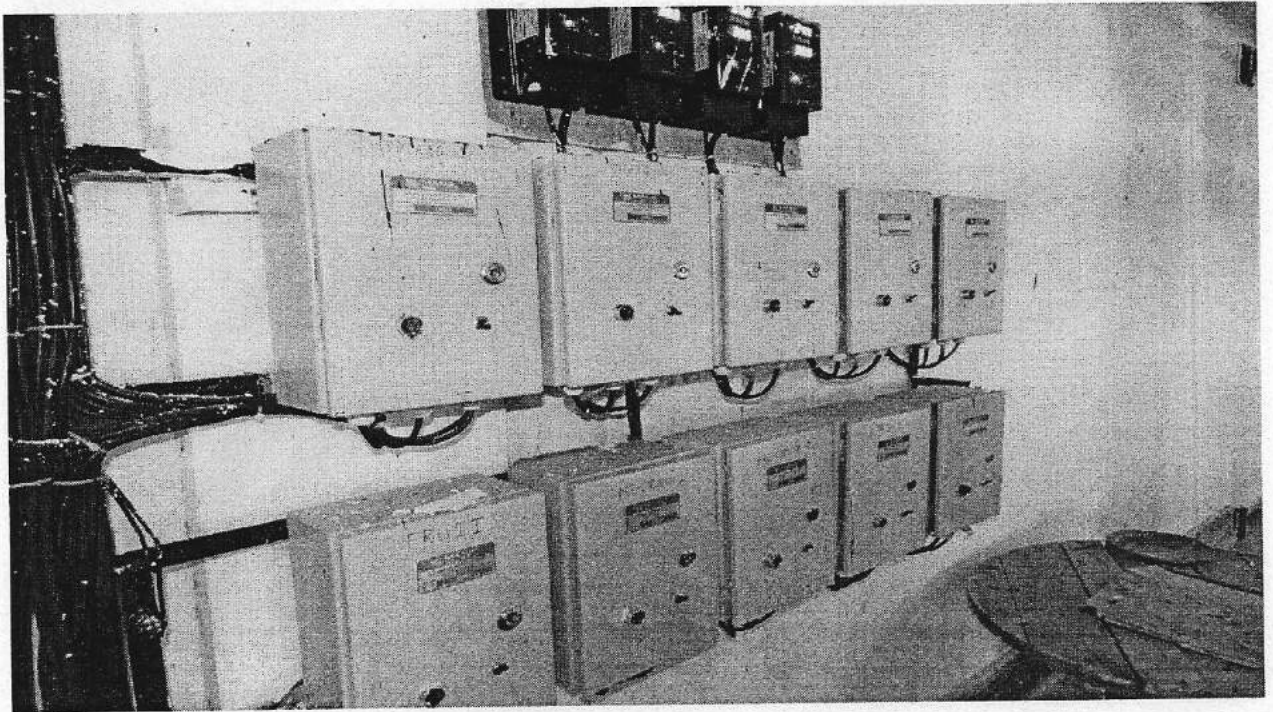
View of Receiver at the Machine Room of the cold Storage at Khowai , Tripura



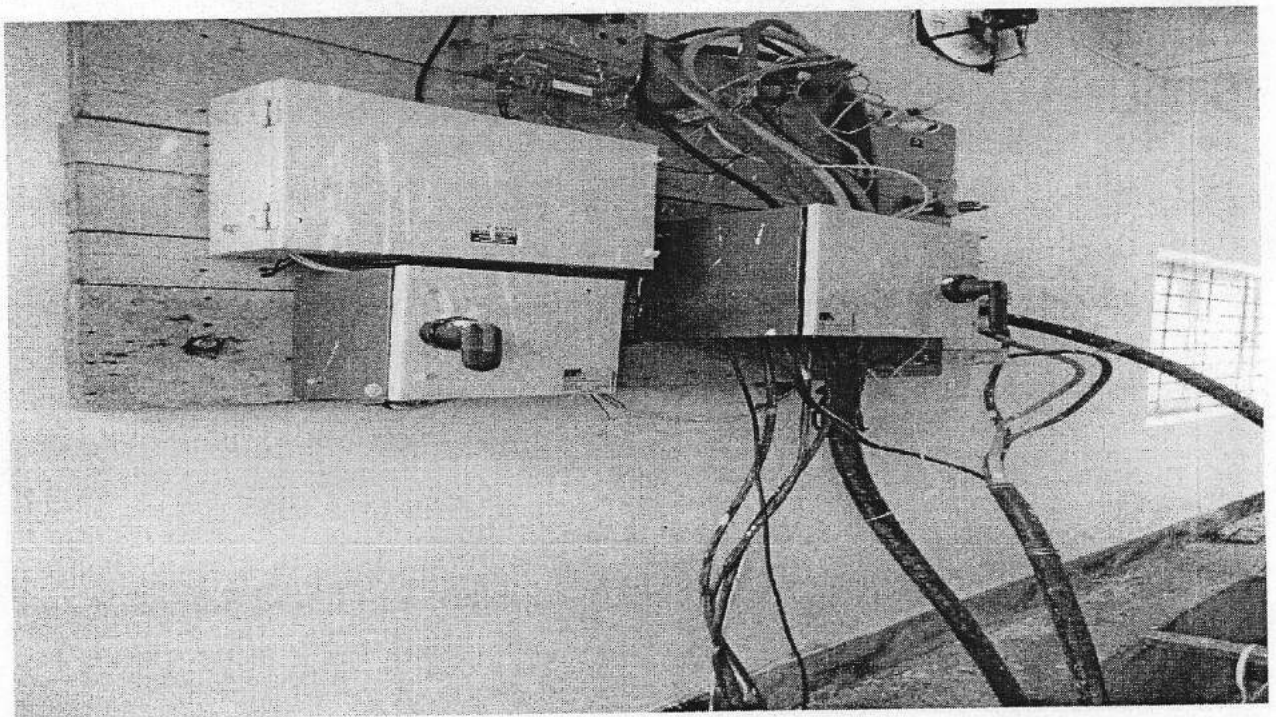
View of HP Receiver in the the Machine Room of the cold Storage at Khowai ,Tripura



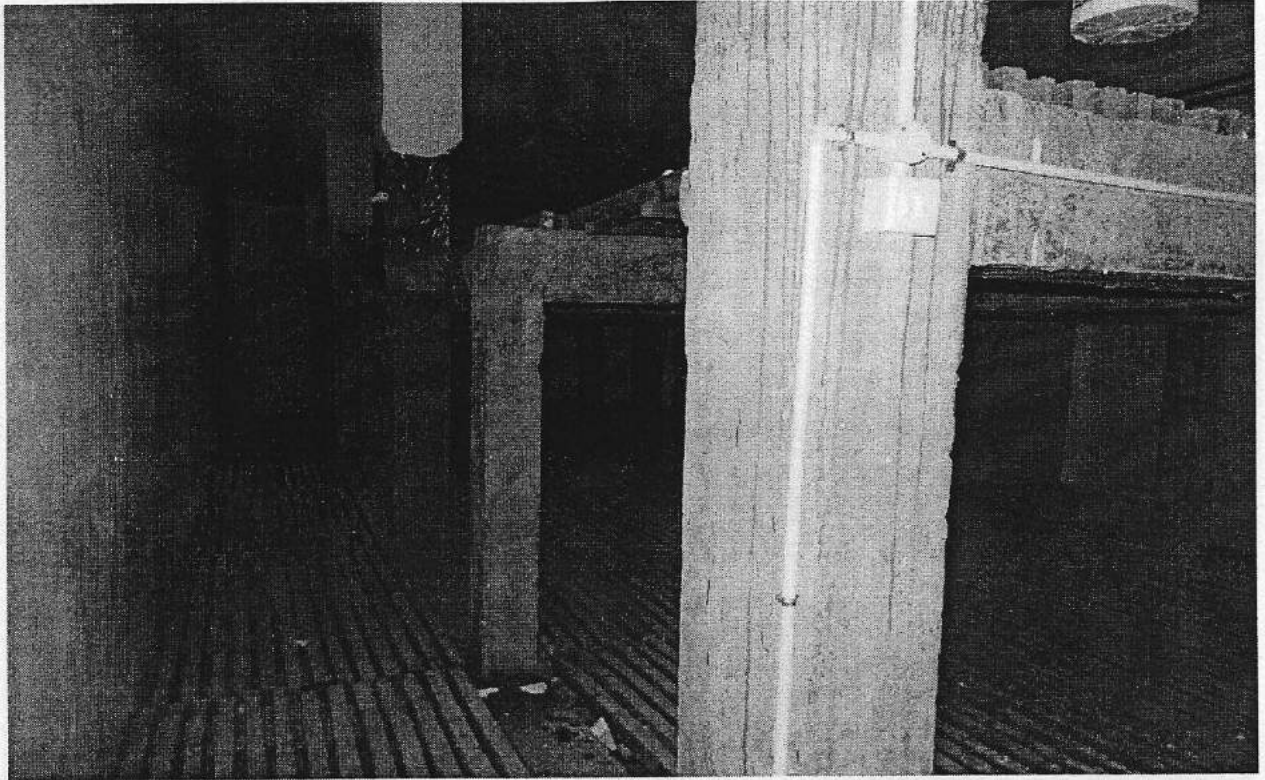
View of the Controlling Panel for the Compressor



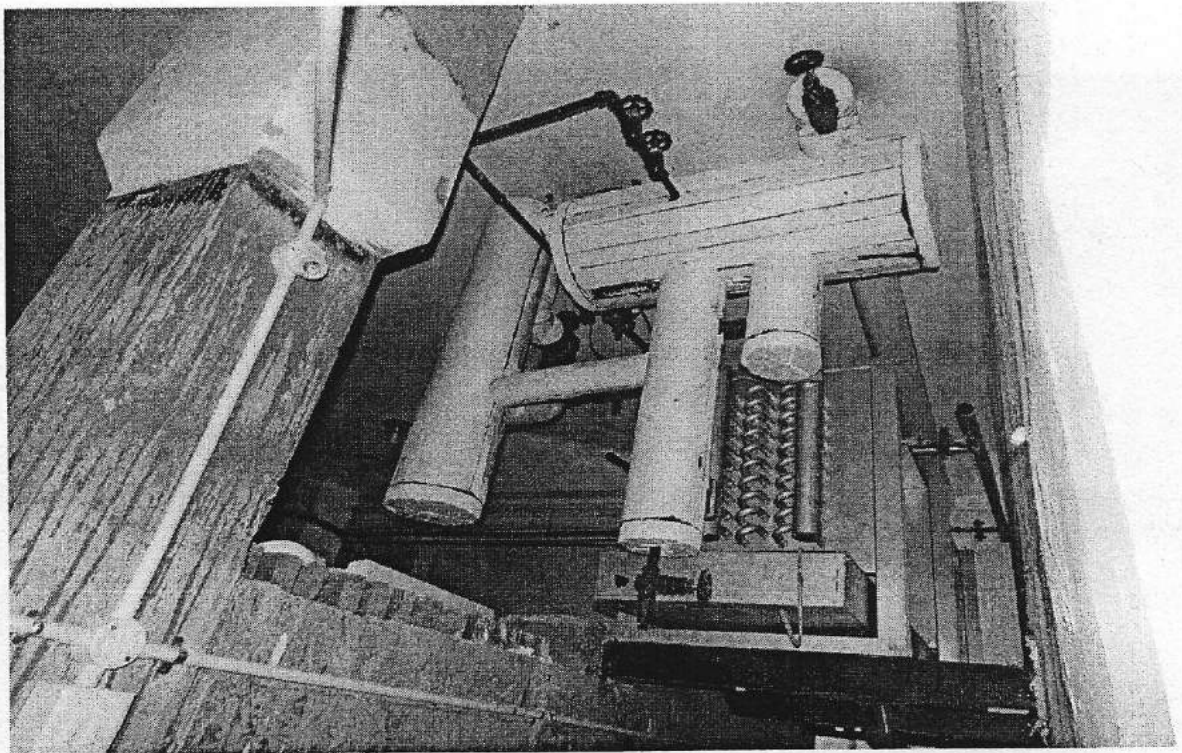
View of the Electrical Controlling Panel for the Cold Chaemers



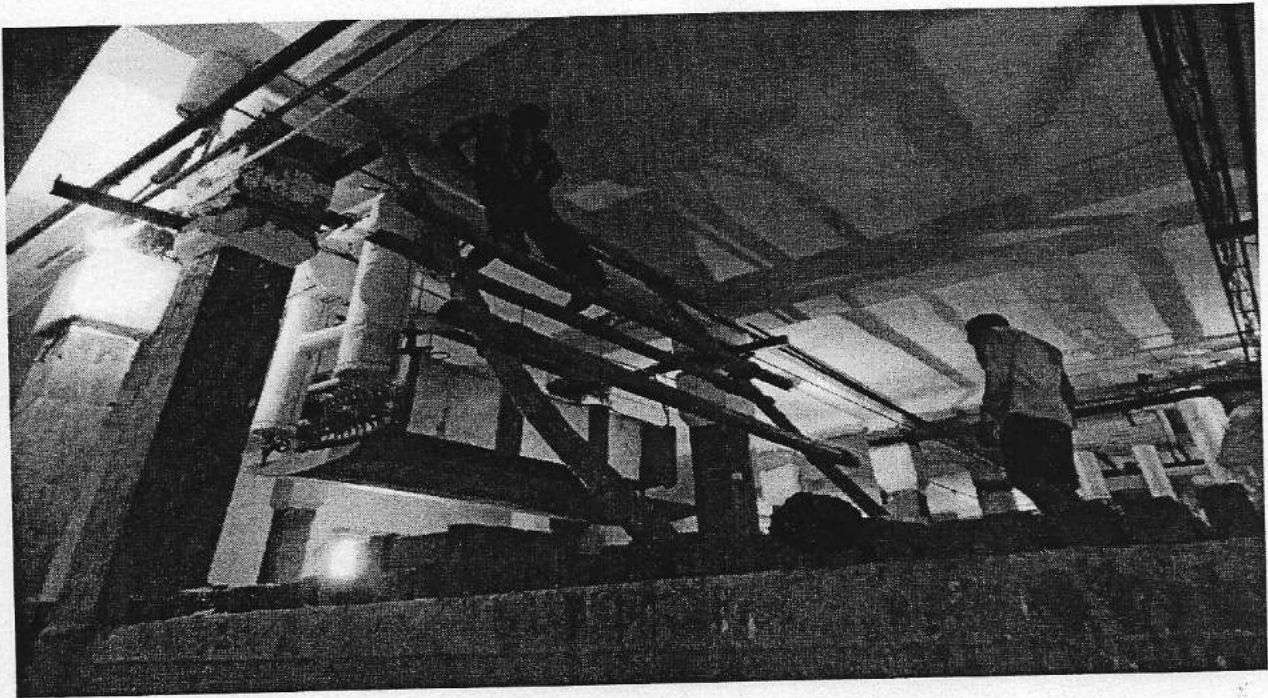
View of incoming line from power department and associate bus bar panel in the machine room



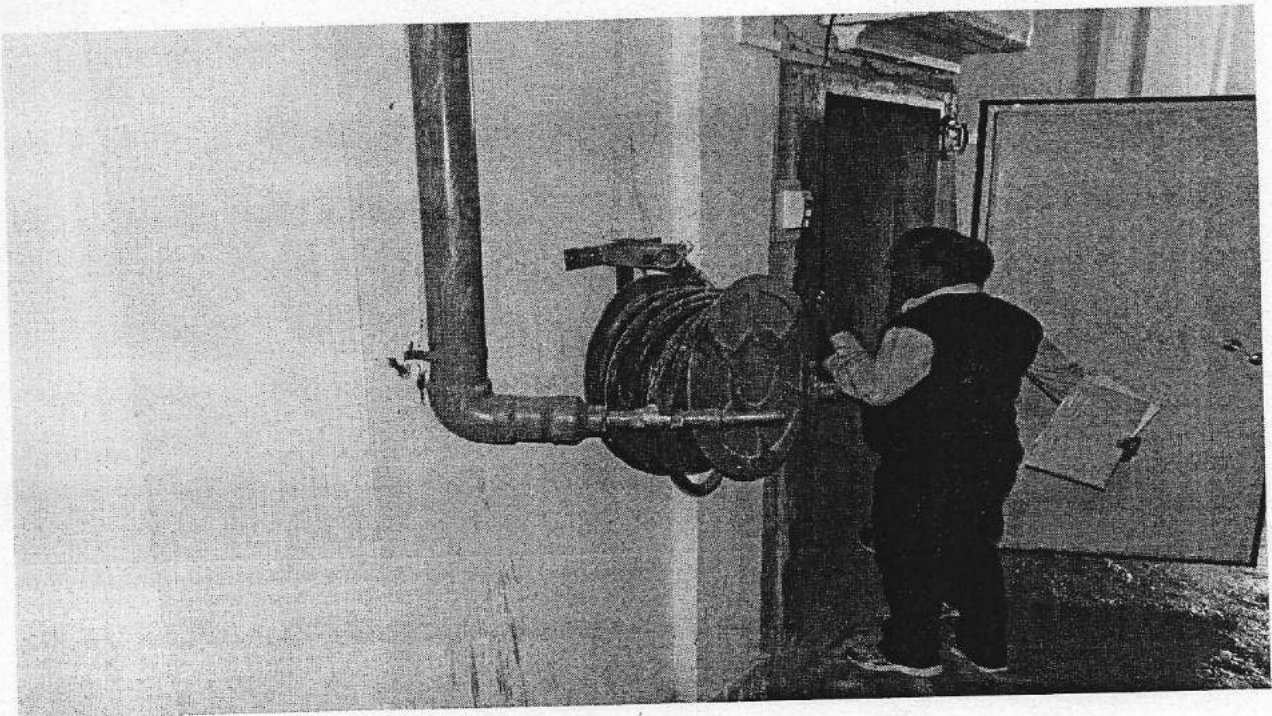
View of Cooling Chambers inside the cold Storage at Khowai ,Tripura



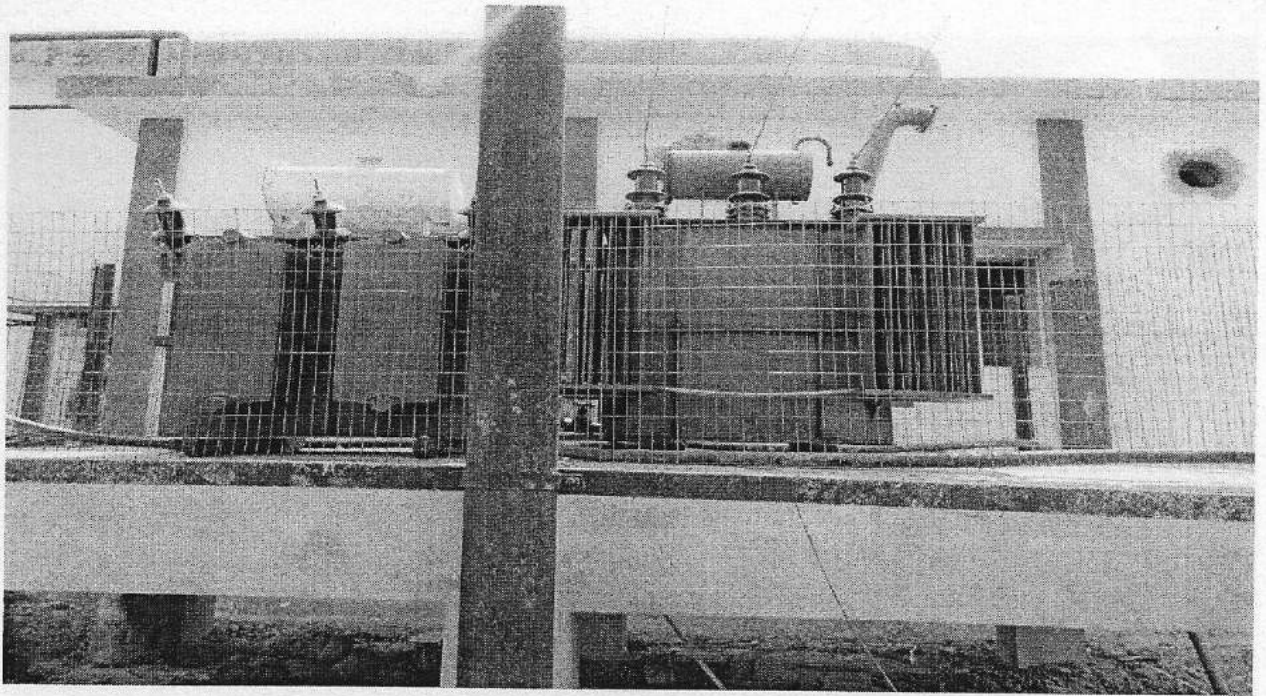
Cooler for the cooling chambers



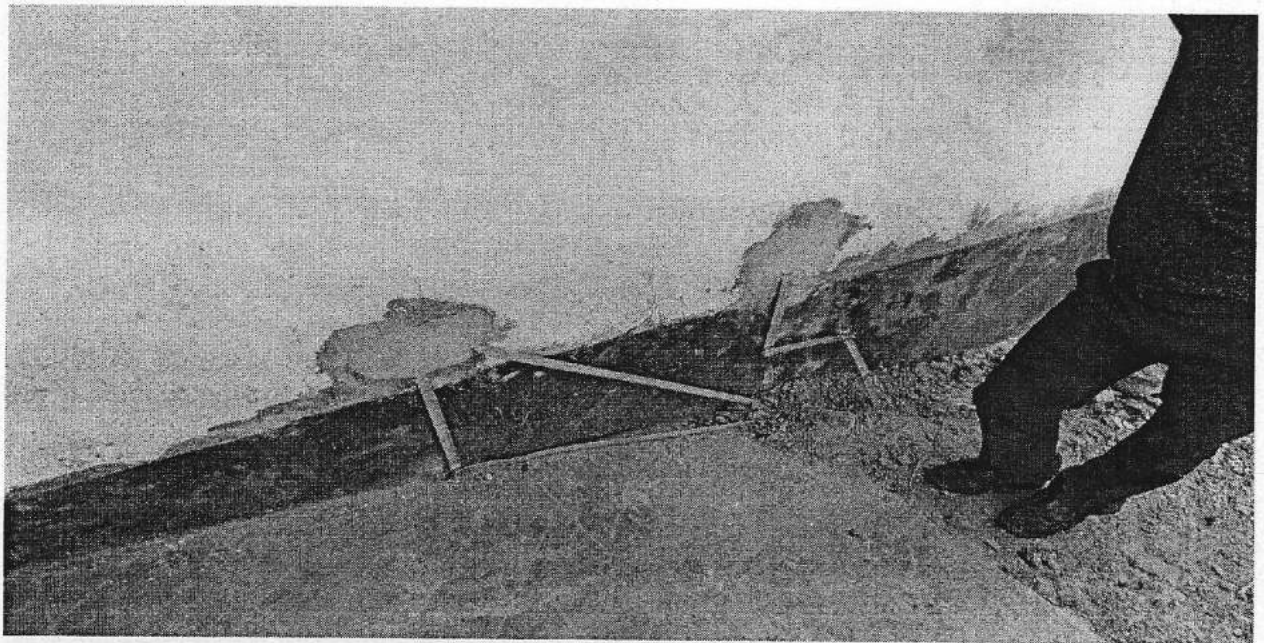
Insulation work was going on inside the cooling chambers



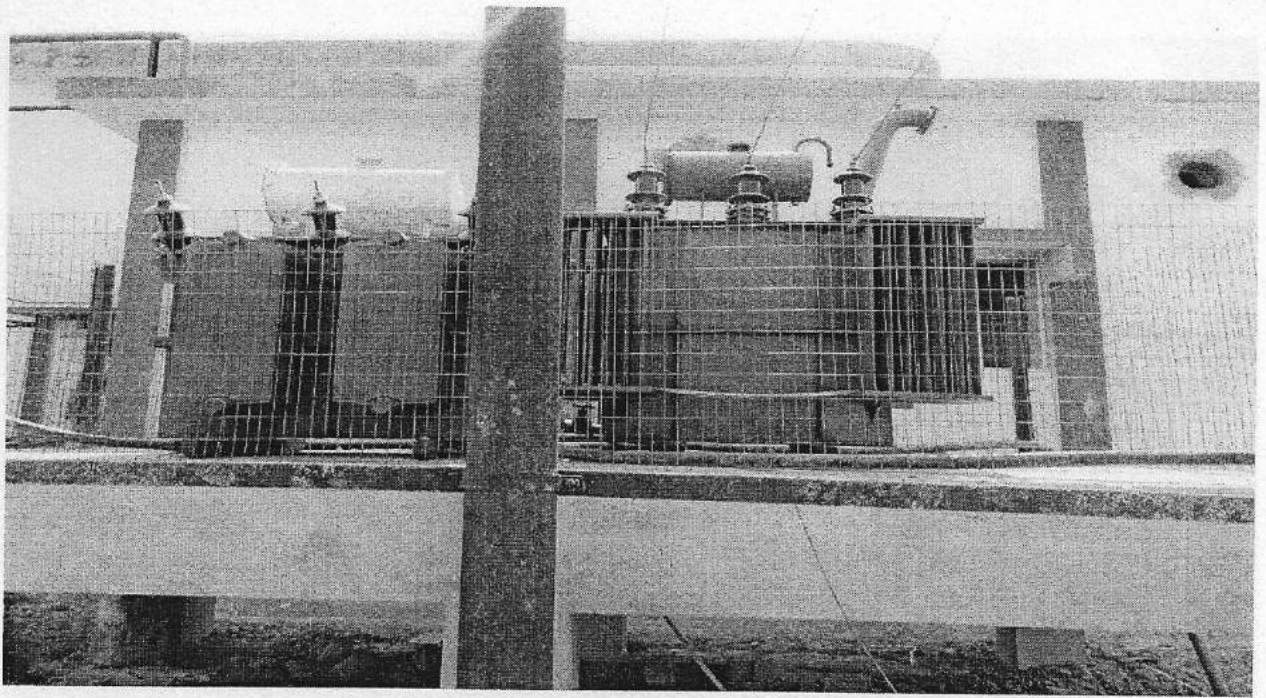
Fire fighting water pipe installed in the wall of the corridor



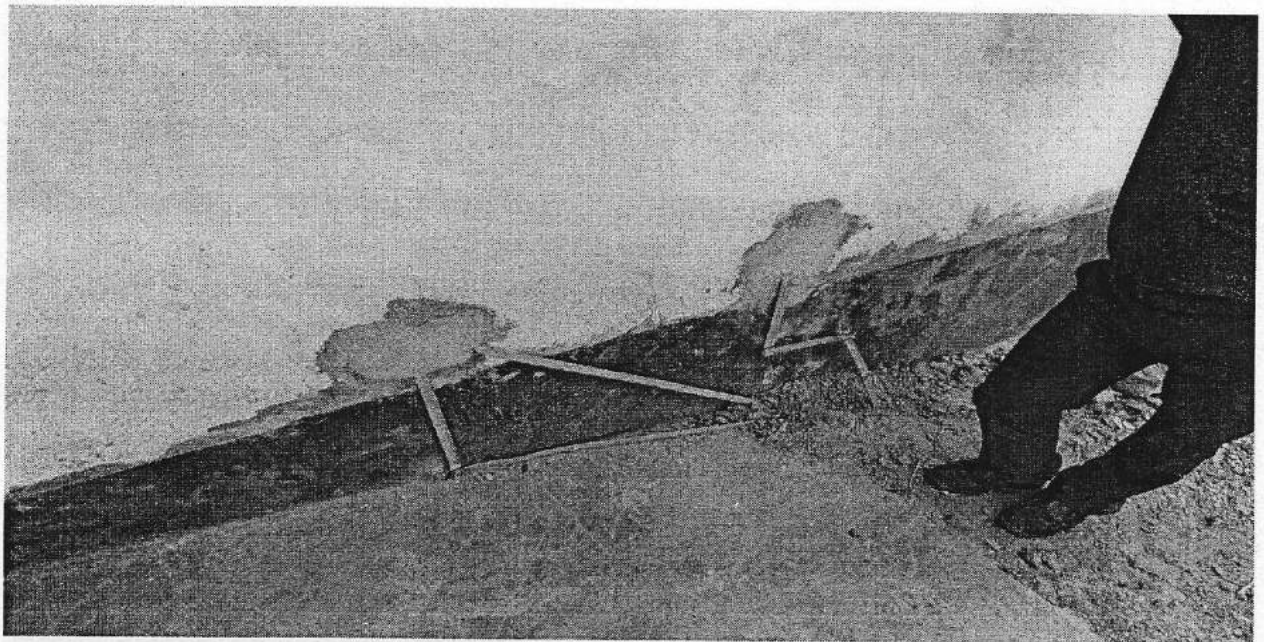
Two nos. Of Transformers installed and commissioned for the cold Storage at Khowai ,Tripura



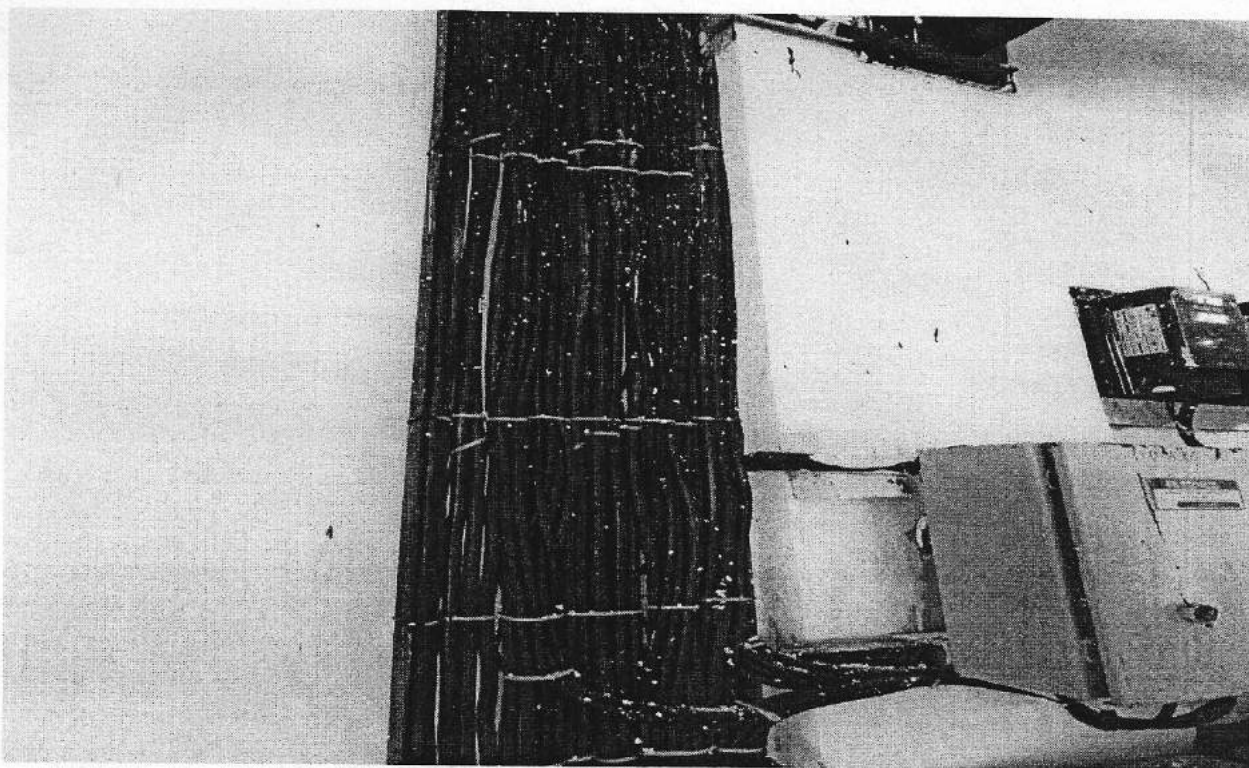
Earthing strip welded could be seen in the project site



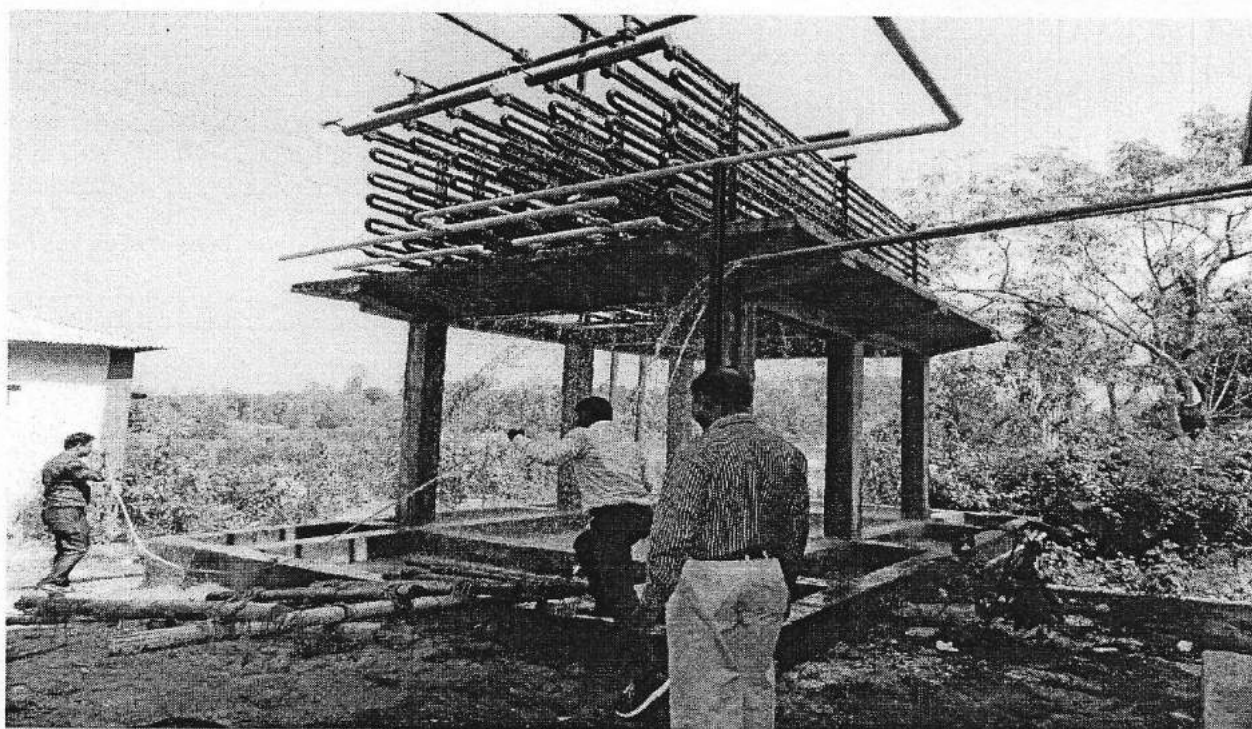
Two nos. Of Transformers installed and commissioned for the cold Storage at Khowai , Tripura



Earthing strip welded could be seen in the project site



Cables not having proper tagging and fully exposed could be seen in the machine room



Consultants taking measurement of the condenser tank