

Model Program Book



SEMESTER INTERNSHIP

Designed & Developed by



**ANDHRA PRADESH
STATE COUNCIL OF HIGHER EDUCATION**

(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

PROGRAM BOOK FOR
SEMESTER INTERNSHIP

Name of the Student: P. Ravindra

Name of the College: S.V.B Government Degree college Kollunkunta

Registration Number: OAM 202101427450

Period of Internship: From 22/1/2024 to 30/4/2024

Name & Address of the Internship Organization: Edula Siva - Reddy Cold storage Kollunkunta (m) NDL (Dis) Sowder denne

Rajalaseema **University**
YEAR

An Internship Report on

Cost-Benefit Analysis of Implementing

(Title of the Semester Internship Program)

Submitted in accordance with the requirement for the degree of

III BA

Under the Faculty Guideship of

Dr. S. Ratu

(Name of the Faculty Guide)

Department of

S.V.B Govt. Degree college Kailkumbha

(Name of the College)

Submitted by:

Pathima Ravindra

(Name of the Student)

Reg.No: 21110011015

Department of Economics

Sri Vasavi Bommidala Government Degree college
Kailkumbha.

(Name of the College)

Page No

Instructions to Students

Please read the detailed Guidelines on Internship hosted on the website of AP State Council of Higher Education <https://apsche.ap.gov.in>

1. It is mandatory for all the students to complete Semester internship either in V Semester or in VI Semester.
2. Every student should identify the organization for internship in consultation with the College Principal/the authorized person nominated by the Principal.
3. Report to the intern organization as per the schedule given by the College. You must make your own arrangements for transportation to reach the organization.
4. You should maintain punctuality in attending the internship. Daily attendance is compulsory.
5. You are expected to learn about the organization, policies, procedures, and processes by interacting with the people working in the organization and by consulting the supervisor attached to the interns.
6. While you are attending the internship, follow the rules and regulations of the intern organization.
7. While in the intern organization, always wear your College Identity Card.
8. If your College has a prescribed dress as uniform, wear the uniform daily, as you attend to your assigned duties.
9. You will be assigned a Faculty Guide from your College. He/She will be creating a WhatsApp group with your fellow interns. Post your daily activity done and/or any difficulty you encounter during the internship.
10. Identify five or more learning objectives in consultation with your Faculty Guide. These learning objectives can address:
 - a. Data and Information you are expected to collect about the organization and/or industry.
 - b. Job Skills you are expected to acquire.
 - c. Development of professional competencies that lead to future career success.
11. Practice professional communication skills with team members, co-interns, and your supervisor. This includes expressing thoughts and ideas effectively through oral, written, and non-verbal communication, and utilizing listening skills.
12. Be aware of the communication culture in your work environment. Follow up and communicate regularly with your supervisor to provide updates on your progress with work assignments.

13. Never be hesitant to ask questions to make sure you fully understand what you need to do your work and to contribute to the organization.
14. Be regular in filling up your Program Book. It shall be filled up in your own handwriting. Add additional sheets wherever necessary.
15. At the end of internship, you shall be evaluated by your Supervisor of the intern organization.
16. There shall also be evaluation at the end of the internship by the Faculty Guide and the Principal.
17. Do not meddle with the instruments/equipment you work with.
18. Ensure that you do not cause any disturbance to the regular activities of the intern organization.
19. Be cordial but not too intimate with the employees of the intern organization and your fellow interns.
20. You should understand that during the internship programme, you are the ambassador of your College, and your behavior during the internship programme is of utmost importance.
21. If you are involved in any discipline related issues, you will be withdrawn from the internship programme immediately and disciplinary action shall be initiated.
22. Do not forget to keep up your family pride and prestige of your College.

-----<<@>>-----

Student's Declaration

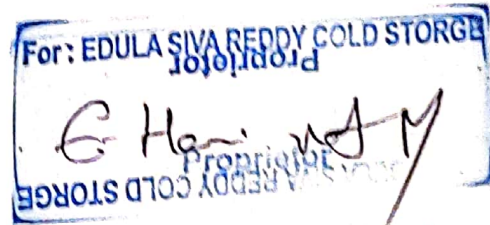
I, Pathima Ravindra a student of Internship
Program, Reg. No. 2110011015 of the Department of B.A (S.V.V.3) Govt Degree college
College do hereby declare that I have completed the mandatory internship
from 22/01/2024 to 30/04/2024 in Educa siva Reddy (Name of
the intern organization) under the Faculty Guideship of
Dr S Ratu (Name of the Faculty Guide), Department of
Economics, S.V.V.3 Govt Degree college Kolikuntla.
(Name of the College)

P. Ravindra
(Signature and Date)

Official Certification

This is to certify that long term Internship (Name of the student) Reg. No. 2111004015 has completed his/her Internship in cold storage (Name of the Intern Organization) on Edula Siva Reddy cold storage (Title of the Internship) under my supervision as a part of partial fulfillment of the requirement for the Degree of History ECONOMICS in the Department of S.V.B Govt Degree college (Name of the College).

This is accepted for evaluation.



(Signatory with Date and Seal)

Endorsements

Faculty Guide Mrs. Raju RAJ

PRINCIPAL
S.V.B. GOVT. DEGREE COLLEGE
KOILKUNTLA, NANDYAL (Dt.)

Head of the Department : Economics.

Principal

[Signature]
PRINCIPAL
S.V.B. GOVT. DEGREE COLLEGE
KOILKUNTLA, NANDYAL (Dt.)

Page No

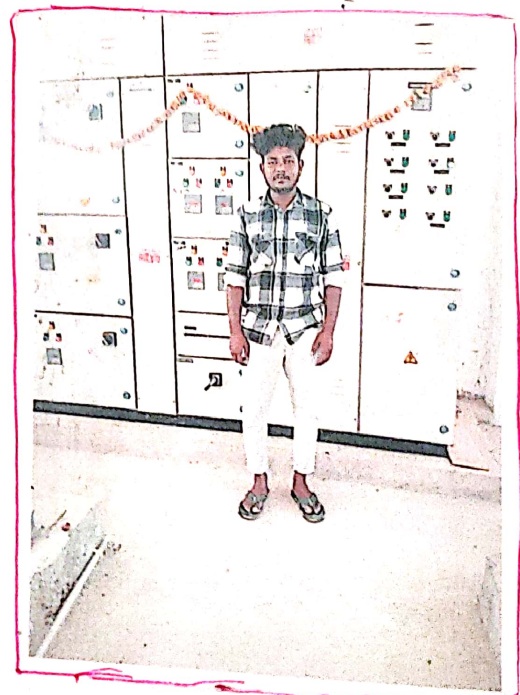
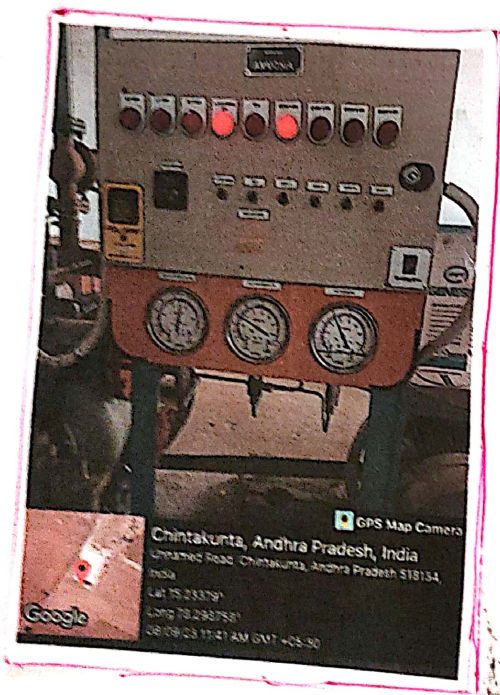
Certificate from Intern Organization

This is to certify that Long term Internship (Name of the intern)
Reg. No. 21110041015 of Sri B Govt Degree College (Name of the
College) underwent internship in Edula Siva Reddy Cold Storage (Name of the
Intern Organization) from Vaillunkula to Kollikunthla

The overall performance of the intern during his/her internship is found to be
Satisfactory (Satisfactory/Not Satisfactory).

For: EDULA SIVA REDDY COLD STORAGE

E. Harish M
Authorized Signatory with Date and Seal
Proprietor
12/4/2021



Acknowledgements

Long-term * Internship * Project * work - 2024

Title :

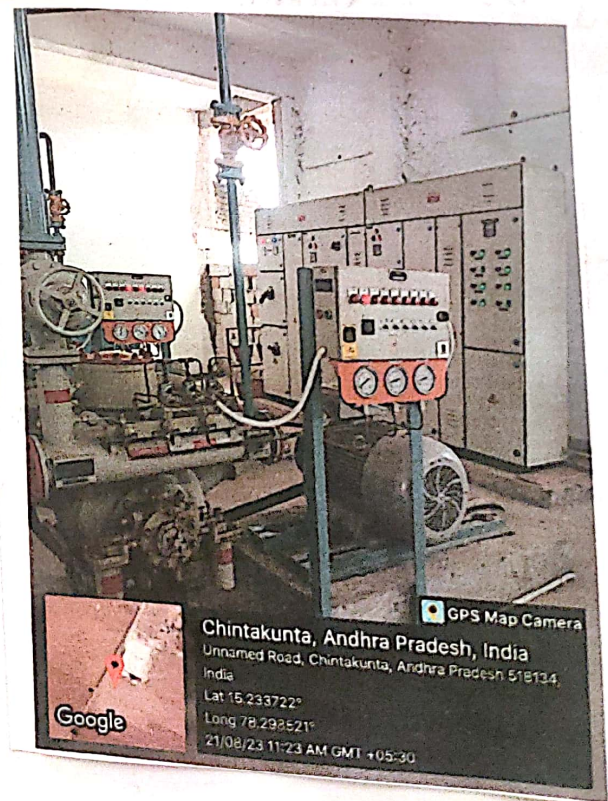
Edula Siva Reddy cold storage

local physical Internship opportunity for maintainer support
position of m/s Edula Siva Reddy cold storage.
cold storage founded by Edula Siva Reddy
in Andhra Pradesh.

this location of Koirakuntla mandalam
sawdevdinne village.

what * are * they * under * these * crops ?

- * Red chilis , and
- * Red grams
- * moong dal
- * chana
- * whole moong.



* Block grams are all the it is kept cold storage.

Drage Acknowledgment high of building for a chilly kept in storage room.

typaly chilly cold storage lifts of 6 floor.

then ground floor (1/2) + 5 floors.
(9 teach) in export product.

the Red chilly stock loading to truck, chilly stock storage lift to chillys and other product export of Andhra pradesh.

Example $\frac{1}{2}$ Dry chillys local kumool market in Andhra pradesh and chilly Red market of bruntur in Andhra pradesh.

Quinta - INR

market	Distric	Price
Hindu puram	Anthapuram	6500
kumool	kumool	7000
bruntur	bruntur.	7500

Contents

Table of contents

ABSTRACT

Chapter 1: INTRODUCTION

- 1.1 Importance of temperature control in the cold storage
- 1.2 Importance of maintaining relative humidity in cold storage
- 1.3 Requirement of air circulation in the cold storage

Chapter 2: Cold storage

- 2.1 Classification of cold storage
- 2.2 Fundamentals of cold storage
- 2.3 Insulation
 - 2.3.1 Economic consideration
 - 2.3.2 R-value
- 2.4 Heat load in cold storage
- 2.5 Refrigeration system
- 2.6 Refrigerants.

Chapter 3: Literature Review

Chapter 4: Survey And Data Collection

- 4.1 Cold storage building details
- 4.2 Refrigeration system detail
- 4.3 3D simulation model
- 4.4 Load calculation.

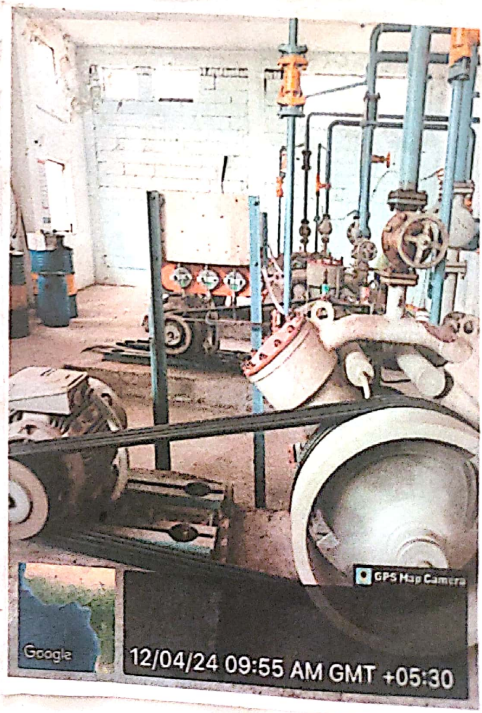
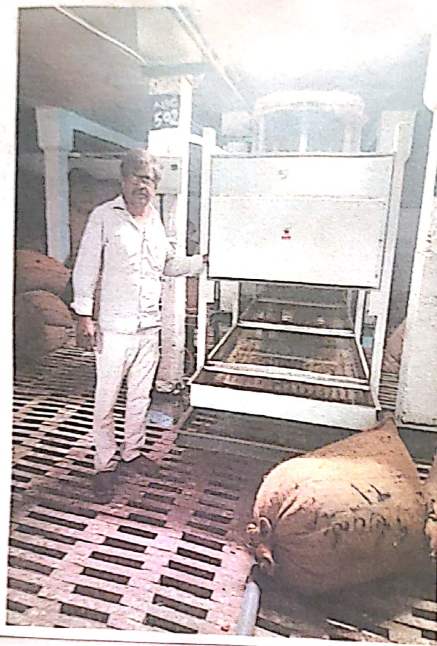
CHAPTER 1: EXECUTIVE SUMMARY

The internship report shall have a brief executive summary. It shall include five or more Learning Objectives and Outcomes achieved, a brief description of the sector of business and intern organization and summary of all the activities done by the intern during the period.

*. Introduction : A fundamental part of our life is food, therefore the security and conservation of it is of great concern. Cold storage warehouse store food after production and before foods are transported and distributed to super markets or catering establishments so that consumers can get highest quality and safe to consume products.

So, humidity control as relative humidity of the store house should be kept at 80-90% for most of the perishable produce. Cold storage is a place in buildings where product security is maintained by providing temperature-controlled atmosphere.

They provide a way for us to store huge amount of food without it all going waste.



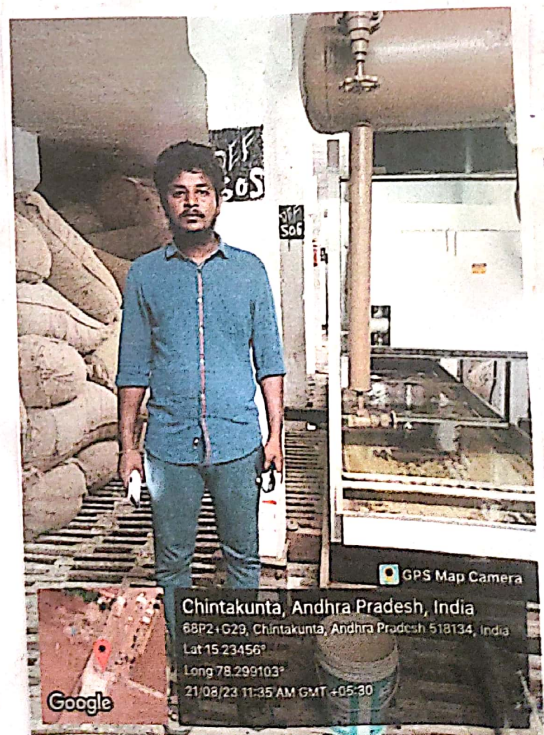
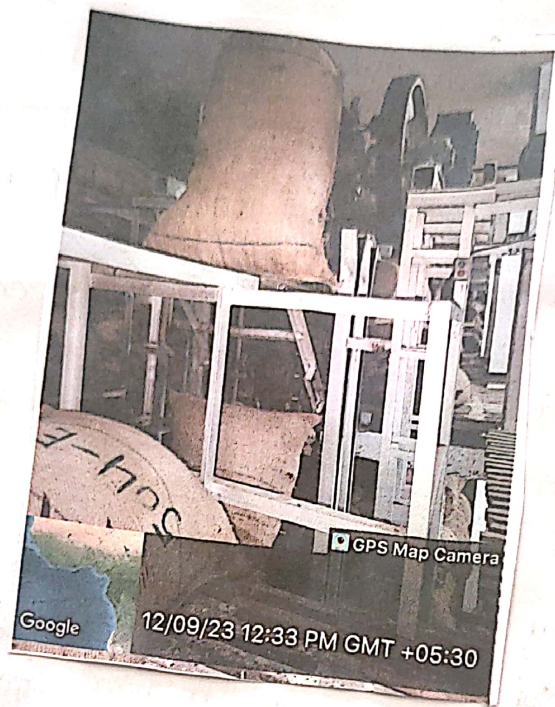
(88.98 million tonnes) and vegetable (162.90 million tonnes) and with this production India is contributed 11.35% and 14.04% global fruit and vegetable production.

Description of current scenario of cold storage in India.

current scenario of storage in India	largest procedure.
created capacity in cold storage	31.2 million tonnes
Average capacity per cold storage unit	5021 tonnes
total unit shut down	6222 1100
operational capacity Required	26 million tonnes
capacity current gap	61.13 million tonnes 35 million tonnes

through India is agriculture - based country cold storage are not only in scarcity but also unequal distributed.

about 75% of this facility is confined to only few states of India. the table given below show the total number of cold storage unit and their capacity in some major states.



CHAPTER 2: OVERVIEW OF THE ORGANIZATION

Suggestive contents

- A. Introduction of the Organization
- B. Vision, Mission, and Values of the Organization
- C. Policy of the Organization, in relation to the intern role
- D. Organizational Structure
- E. Roles and responsibilities of the employees in which the intern is placed.
- F. Performance of the Organization in terms of turnover, profits, market reach and market value.
- G. Future Plans of the Organization.

Cold storage in India :-

The first problem is that there are not enough cold storage. The Government is offering some subsidies to try to park gather this - but it is still also very different business models at play.

This need is towards storing grains and seeds at a better price once the harvest season is over, turmeric for example climbs as high as 3-4 times of season and is very easy to store. Farmers don't do it because they don't have space to store it.

chilly cold storage of 5000 mt

Approximately one acre of land is required for a 5000 mt cold storage for chilly.

This land required is sufficient for cold storage, machine room, condenser tank and condenser, power house and transformers.

and also 20 feet free space in all direction for fire and safety guidelines.

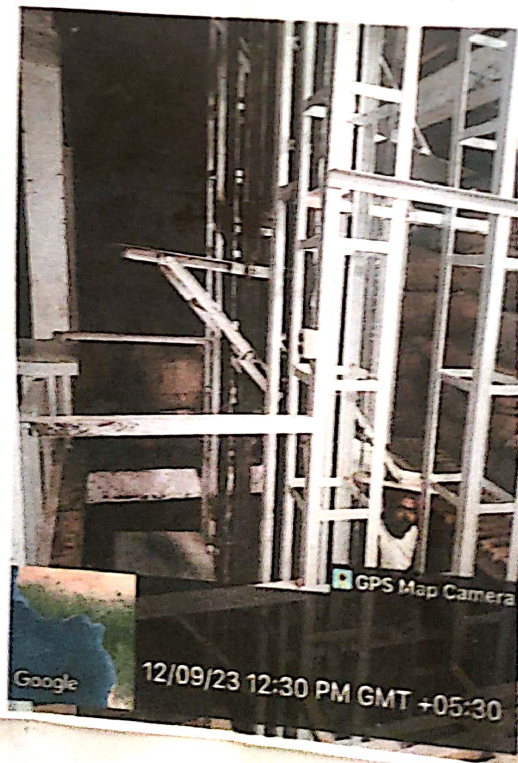
The approximate building length width and height required for a 2500 mt chamber.

Generally for cold storage of 5000 mt, customer build two chambers of 2500 mt each they build two the cold storage in rectangle shape, and standard size of each 2500 mt chamber is 100 x 60 x 12 ft.

However, depending on the customer's land layout, the building is built straight.

* Ammonia for chilly cold storage

Generally chilly cold storage are above 5000 mt capacity in this range ammonia refrigerant is more economical than for Freon.



CHAPTER 3: INTERNSHIP PART

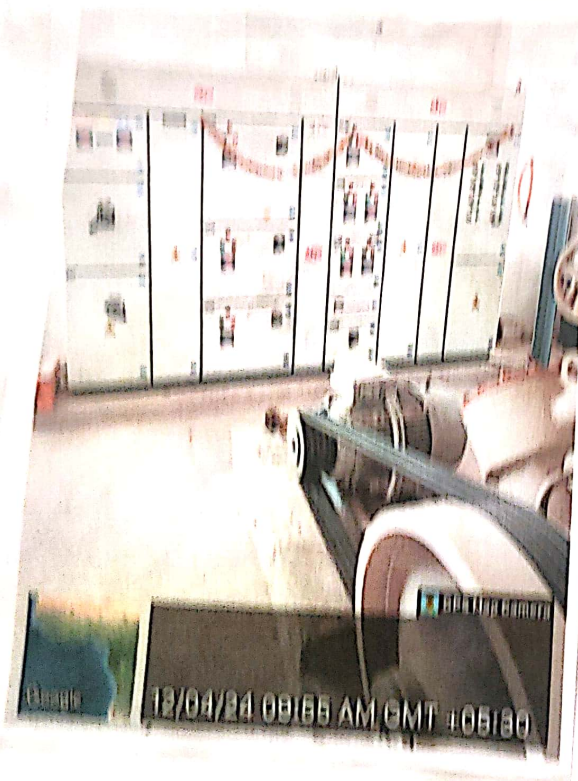
Description of the Activities/Responsibilities in the Intern Organization during Internship, which shall include - details of working conditions, weekly work schedule, equipment used, and tasks performed. This part could end by reflecting on what kind of skills the intern acquired.

cold storage - Down throw product cooler sin were
Fins for Fans for high tube test pressure to
ensure leak proof cool
downward air flow pattern for equal distribution
of air chick peas, splitting, moong, chana whole
moong total item proper cooling extend the self line

storage temperature, 5,000 MT cold 8°C stored
temperature 2,500 MT chilli storage (30TR)

the Internship Andhra Pradesh in Edula siva reddy
cold storage in location of Kailakuntla Red chilli and
bawal and chana whole moong, split, moongs, Red grams,
Black grams also in storage.

Acknowledgement high of buildings for chilly
cooling in room storage.



ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	First day going to Edula siva Reddy cold storage (Korikuntla).	Cold storage drawn through product cooling	
Day - 2	stock saving storage in Edula siva Reddy cold storage.	product started in 3 years or 4 years.	
Day - 3	5th floor in fans and light efficiency	3x5 215 fans	Proprietor For: EDULA SIVA REDDY M. S. R. 2011
Day - 4	Different stock stored and chana whole moong, chillies	stock is daily stock product cooling	(1)
Day - 5	storage temperature	+ 10°C temperature	
Day - 6	cold storage packing left price in indore.	priority loading to left in cold storage.	



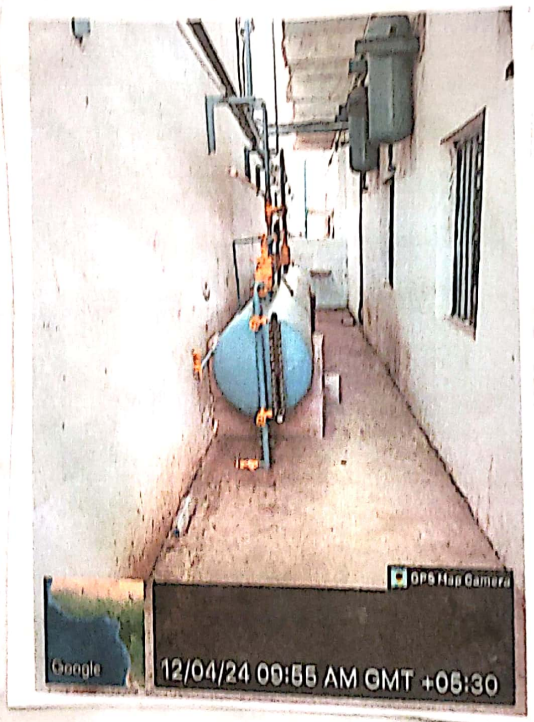
WEEKLY REPORT

WEEK - 1 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report:

- *. However if cold storage facilities are used, the product may be stored for 4-3 years.
- *. cold storage loading lifts indoor within 5 floors.
- *. cold storage - down throw product cooler.
- *. 3x5 = 15 fans each on rooms.
- *. sin were fins for fans for high R.F.
- *. tube test pressure to ensure leak product cool.
- *. Down ward air flow pattern for equal distribution fair
- *. chick peas, split mung, moong dal, split green gram mung total item proper cooling extend the shelf life.
- *. storage temperature, 500ml cold.
- *. 801 started temperature, 2.500 m² chilli storage (30TR)
- *. cold storage in a to maxind, sorghum,



ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	water supply room cooling mission Important, Important usage.	water discharge pressure.	
Day - 2	section pressure. 14.2	Ammonia total 160 kg	
Day - 3	Important missions usage	12 PKG = 10 + 15	
Day - 4	oil pressure 16.4	Oil supply Ammonia	
Day - 5	Power of evacuating lines to 16.4	Ammonia to pressure into the cooling down and other item.	
Day - 6	Ammonia (sine test) stage training supply checking	Howes days 2246 (24 Hours).	

For: EDULA SIVA REDDY COLD STORAGE

E. H. S. R. L. O. Y.
Proprietor



WEEKLY REPORT

WEEK - 2 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: controlled atmosphere stores.

*. these are for specific purpose to store some commodities that require special cooling condition.

*. these store are fitted with technological that alter atmospheric condition of storage area like gases content, humidity in addition with temperature control.

*. the items stored are apple, pears, cherries.

*. Another classification of cold store is multi storage and one-story cold storage.

*. multi-story cold storage is the fashion adopted at early refrigeration warehouse when labour cost was not a major concern.

*. the building include 3-12 floor and heights of each story is kept as 7-9 feet - as most of multi-story in warehouse.



GPS Map Camera

Chintakunta, Andhra Pradesh, India

68P2+G29, Chintakunta, Andhra Pradesh 518134, India

Lat 15.234559°

Long 78.299102°

21/08/23 11:39 AM GMT +05:30

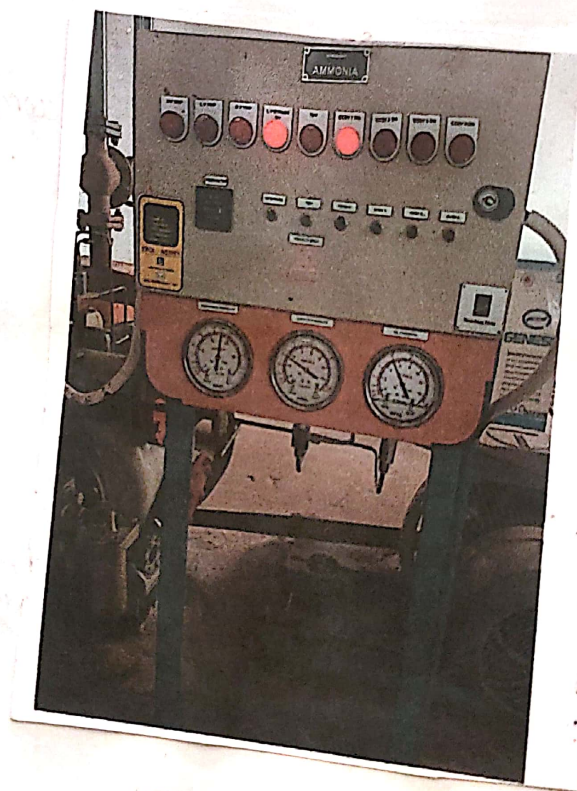
Google



Scanned with OKEN Scanner

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Enriching level 70° (9TRP)	Ammonia chana cooling liquid.	
Day - 2	Dispersant liquid	total 5 room	
Day - 3	change cooling . 5.12 the liquid air door	total + 10° temperature cooling.	For: EDULA SIVA REDDY COLD STORAGE  Proprietor
Day - 4	storage temperature	+ 10° temperature.	
Day - 5	cold storage packing	use full loading lift	
Day - 6	the storage is used daily activity is used Andore	cold storage used.	



WEEKLY REPORT

WEEK - 3 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Fundamental of cold storage design"

The design and planning are the crucial step while setup of any system. Cold storage demands lot of work prior to the implementation phase as we have to take into account all the problems which can be supposed to face. We have to think in view of environment, economic and maintenance aspect before the actual working condition.

All the cost associated with initial setup, working and maintenance and depreciation have to be studied.

- process layout : it is the phase where we plan the floor layout for efficient working and handling.
- planning drawing and application : this phase come only after the process layout.

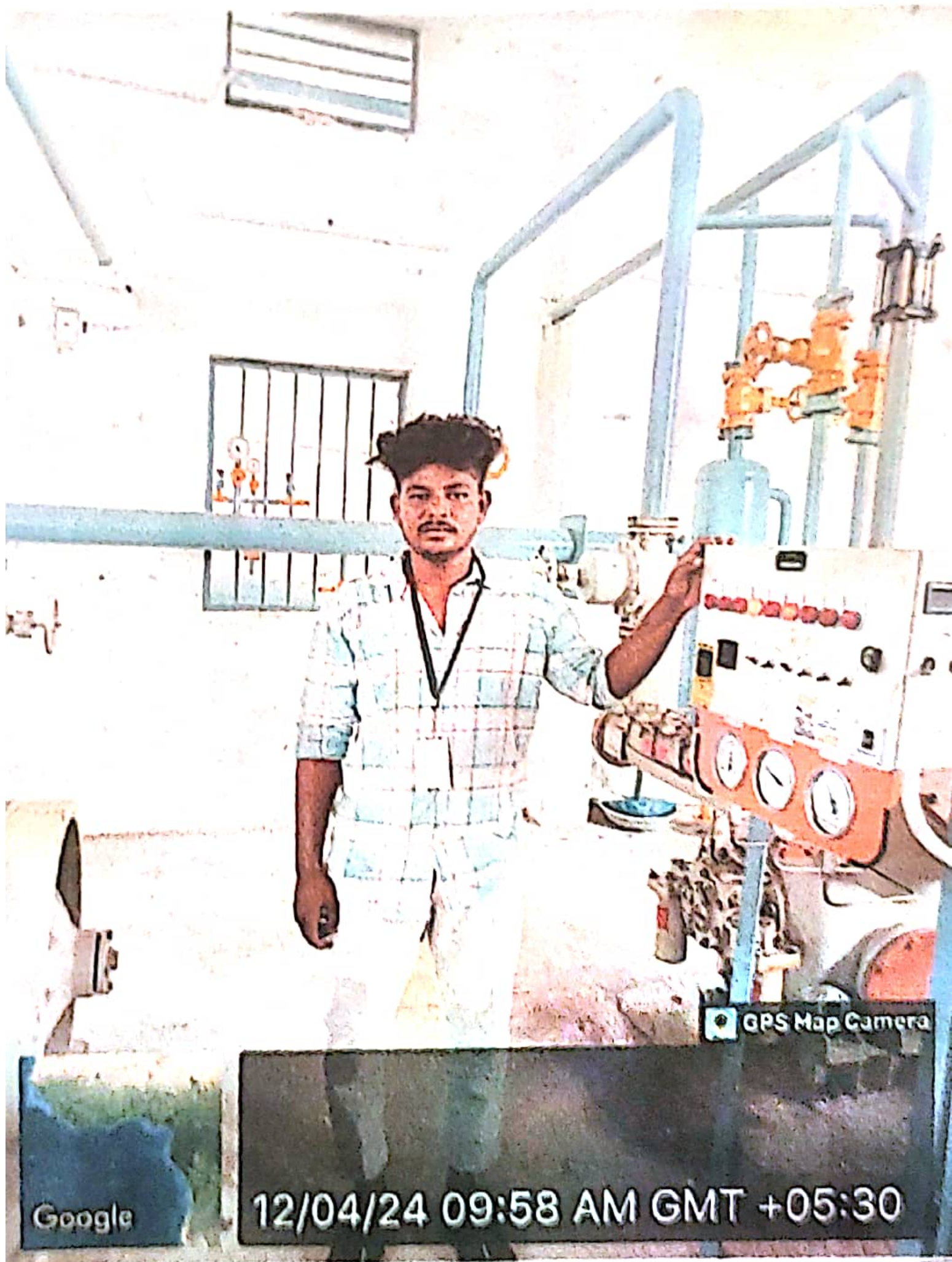


ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day -1	storage (Bvayur)	total bvaayur	
Day -2	Explanance of cold storage in Pans.	$3 \times 5 = 15$	
Day -3	change that cooling Reate	storage all cooling.	
Day -4	bas liued	storage are at most cooling.	
Day -5	chana and chillys change	room cooling	
Day -6	stocks	supply.	

For: EDULA SIVA REDDY COLD STORGE

G. Harish Nylm
Proprietor



GPS Map Camera

Google

12/04/24 09:58 AM GMT +05:30

WEEKLY REPORT

WEEK - 4 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Design consideration regarding construction have details of cold storage" :-

Apart from the above-mentioned consideration there are some other point that are the requirement of any project.

- contracted formalities.
- building specifications.
- Refrigeration system specifications
- Insulation.
- Electrical requirement.
- mechanical requirement.

In cold storage rooms the inner temperature is maintained at much lower temperature than the outer surrounding temperature.

It is the property of heat to travel from higher temperature to lower.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person in Charge Signature
Day - 1	market preferred lights, speed to motors	market work	
Day - 2	(LPBy pass) compare passing	100' Dike 2 1/2 level oil 6" TDV	
Day - 3	temperature in cold storage	15.1 and 16.2	
Day - 4	storage cooling	temperature cooled to every day	
Day - 5	chara change	Room cooling	
Day - 6	storage cooling	total all rooms supply to cooling in temperature	

For: EDULA SIVA REDDY COLD STORAGE

G. Reddy

Proprietor

WEEKLY REPORT

WEEK - 5 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Economic consideration"

cost- is the first thing while considering any aspect, hence amount of the insulation and cost of the insulating material.

- conductivity
- Heat gain
- solar radiation

S.No	Material	R-value (1 - Rmct / thickness)
1.	glass wool, mineral	3.50
2.	cellulose	3.50
3	wood shaving or sawdust	2.22
4.	Plain expanded extruded polystyrene	5
5	Expanded rubber	4.55
6.	Expanded polystyrene modelled bead	3.57
7	Aged expanded polystyrene	6.25
8	Glass fibre	4
9	polyisocyanurate	8
10	wood or cork fibre board	2.5

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	unit stocks to in cold storage	total item	
Day - 2	check to speeling	(program) any items cooling	
Day - 3	moter process out	exchange stock	
Day - 4	springreen gram means dal and poor dal, chara	total item exchange the shet lift	
Day - 5	prasant study develops cooling	cooling application	
Day - 6	feet - cellulose fiber	water cooling in operator room.	

For: EDULA SIVA REDDY COLD STORAGE

E. H. M. Proprietor

WEEKLY REPORT

WEEK - 6 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report:

Heat load in cold storage.

* In cold storage optimum temperature is required to be maintained in order to get the refrigerated product.

* For this continuous heat removal process is needed which extract the heat from the cooling space.

* Before we install the refrigeration unit it is required to know the desired refrigeration capacity of given space at given temperature.

• Conduction heat : Heat conducted through walls, roof and floor of the building.

• Field heat : Amount of heat that is needed to be removed from the product to cool it and store at a specific.

heat removed is only needed for maintaining the storage temperature.

ACTIVITY LOG FOR THE SEVEN WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	multi commodity Item	Goods out word	
Day - 2	Instant lot No. wise current stock	Customer wise stock detail	
Day - 3	location	specific factor Altitude elevation above sea level	
Day - 4	environment	water, atmosphere corrosive and staining property	
Day - 5	Factors	ease of transportation cost storage availability	
Day - 6	labour	Availability skill, and money	

FOR: EDULAKSHI REDDY COLD STORAGE

Has
C/O
Proprietor

WEEKLY REPORT

WEEK - 7 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Heat transfer through walls building"
For steady flow condition the equation
for heat load calculation is.

$$Q = U \times A \times (T_o - T_i)$$

where

U = overall heat transfer coefficient
($\text{K cal / m}^2 \text{ h}^\circ \text{C}$)

A = surface area through which heat
transfer taking place (m^2)

T_o = temperature of outside air

T_i = temperature of inside air

the overall heat transfer
coefficient is given by

$$U = 1 / \left(\frac{1}{h_i} + \frac{x_1}{K_1} + \frac{x_2}{K_2} + \frac{1}{h_o} \right)$$

h_i = heat transfer coefficient on
inner wall

h_o = heat transfer coefficient on
outer wall.

ACTIVITY LOG FOR THE EIGHTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Column, Beam Joint	Size, depth, position	
Day - 2	wall, Roof, Floor Insulation	Type of the insulation, thickness, resistivity.	
Day - 3	surrounding condition	out side Adjacent space.	
Day - 4	Access	Doors and stairway and lifts.	
Day - 5	Access to door	location, type size and use space access to environment	
Day - 6	type of construction	location and movement of the joint.	

For: EDULA SIVA REDDY COLD STORAGE

Proprietor

WEEKLY REPORT

WEEK - 8 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: thermodynamic and thermophysical properties.

* suction pressure $\frac{P}{0}$ the suction pressure is required to be higher than the atmospheric pressure to avoid the leakage of the atmospheric gases into the refrigerant so that.

* Discharge pressure $\frac{P}{0}$ at a required condenser temperature the pressure should be low reduce the compress.

* pressure ratio $\frac{P}{0}$ as low as possible to reduce the volumetric losses.

* latent heat of vaporisation $\frac{P}{0}$ It should be as possible to reduce the requirement of mass flow.

* liquid specific cooling $\frac{P}{0}$ LSC should be small as to lower the amount.

ACTIVITY LOG FOR THE NINETH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	controlled, atmosphere	specific purpose to store some commodities.	
Day - 2	Atmosphere condition	humidity in addition with temperature controlled	
Day - 3	cost and development of mechanical equipment	store palleties and non-palletised ware house	For: EDULA SIVA REDDY COLD STORAGE  Proprietor
Day - 4	cold storage	ware house product available at lower cost	
Day - 5	mini units or work in stores.	there are for distribution purpose	
Day - 6	polystyrene	0.24.	

WEEKLY REPORT

WEEK - 9 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: Global warming Potential (GWP) $\frac{1}{100}$

GWP is the measure of amount of heat trapped by a gas in the atmosphere in a specific time duration relative to the carbon dioxide.

carbon dioxide (R244) ammonia (R717) and R32 But these alternative are either mildly or highly flammable except carbon dioxide.

total equivalent warming index $\frac{1}{100}$ direct and indirect emission contribution to global warming potential combinedly represented this index.

toxicity $\frac{1}{100}$ If we talk about ideal refrigerant, the toxicity, the toxicity should be zero. But all the fluids except air are more or less toxic depending upon this concentration.

ACTIVITY LOG FOR THE TENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Block del cooling	Room in all storage	
Day - 2	the cooling air speed across the rooms	Cooling.	
Day - 3	the compressor consumes	Compressor	
Day - 4	almost all the power in cold storage room	only drive	
Day - 5	heat dissipation at used	Blowers cooling.	
Day - 6	water at the risk to risk	3-8 and vouchers.	

For: EDULA SIVA REDDY COLD STORAGE

C. Harish
Proprietor

WEEKLY REPORT

WEEK - 10 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Cold storage in Flammability"

*. Flammability $\frac{p}{o}$ The refrigerant should be flammable and non-explosive. But some refrigerant is used even after their explosive nature because of other required properties and usage hence special care should be taken while handling such refrigerant.

chemical stability $\frac{p}{o}$ The refrigerants are required to be chemically stable while their use in the system because property of the refrigerant is very important factor deciding the system performance.

compatibility $\frac{p}{o}$ The refrigerant selected should not be reactive with the material system.

ACTIVITY LOG FOR THE ELEVENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	However is cold storage	Facilities	
Day - 2	product supply	stocks.	
Day - 3	cold storage	Down throw product order	
Day - 4	pressure insurance	product downthrow.	
Day - 5	8°C stored temperature	2,500 mt chilly store	
Day - 6	chick peas, split mms, moong dal, green dal	Shkept cold storage.	

For: EDULA SIVA REDDY COLD STORAGE

G. H. Reddy

Proprietor

WEEKLY REPORT

WEEK - 11 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: survey and data collection

In every project initial phase is survey and data collection as information of any system is must to know prior start working upon any system. After thorough inspection and gathered information we study and conclude whether there is any recommendation for change or substitution of given setup further work is also done to improve the efficiency and cost cutting is also done by some change.

In my project I have selected Fumuk bad cold storage as a base from which in sight of cold storage.

* cold storage building details.

* cold storage system details.

ACTIVITY LOG FOR THE TWELVETH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Blowers & the cooling air is speed across the room	Rooms are all cooling.	
Day - 2	the compressor consumers almost all the power in a cold room	compress only device.	
Day - 3	Heat dissipation of water at night	3.8 and various lines with the Evaporation.	
Day - 4	possible for data centre cooling	overall temp can reach 9.4 for room temperature	
Day - 5	temperature difference $+10^{\circ}\text{C}$	cooling system.	
Day - 6	required 450 ton	Oil ground one in the short.	

For: EDULA SIVA REDDY COLD STORAGE

not N

G. Hor

Proprietor

WEEKLY REPORT

WEEK - 12 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: Importance of maintaining relative humidity in cold storage.

Relative humidity is the term used to measure the moisture content in atmosphere at a particular temperature relative to moisture at saturated condition at same temperature by the same amount of the air. Relative humidity of the environment is necessary to maintain in the cold storage as to avoid the water loss from the food and to retain the freshness and quality of the food.

When we gradually decrease the temperature of the space at a particular pressure air gets cool and after some point air will reach to temperature, where the moisture content or water vapour present in the air will start condensing or precipitation.

ACTIVITY LOG FOR THE THIRTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	A cold storage facility works on a texture refrigeration system which keeps.	maintain.	
Day - 2	cellulose pad cooling which is cooled at night by high as 3-4 times	(CWT)	
Day - 3	termoxic for examins elims as night by high as 3-4 times	stock 3-4 years.	
Day - 4	this item, when needed can be taken from the cold storage	store item stock.	
Day - 5	cold storage issued to pressure	storage item stock	
Day - 6	Business park	Business Report.	

For: EDULA SIVA REDDY COLD STORAGE

Proprietor

Proprietor

WEEKLY REPORT

WEEK - 13 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: 13th week reported in cold storage.

The 13th week InterShip project data collection information conducted to the in Andhra Pradesh state storage location of Kailakuntla (M) Sunderbore (V) at Edula Siva Reddy cold storage so many items coming to this storage.

Then Red chills and whole mango orange Acknowled visit as building for this chilly along this room.

In cold storage dry chillies are shipped to loading trainss truck goes to the Kurnool market in Andhra Pradesh dry chilly going on the Guntur market.

- Hindu puram (M)
- Kurnool (M)
- Guntur.

where shipped to this stock.

ACTIVITY LOG FOR THE FOURTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	storage (Broyer) first on explain	total (Broyer) of 15 each rooms	
Day - 2	white stock chick pose, split mang mangda, green brom	total item/ commodities proper cooling	
Day - 3	temperature at the storage	15.1 cooling in energy room.	
Day - 4	mother pressure and high speed (4 by 1000)	15.0° Dubble → 3 1/2 level → 01-6	
Day - 5	chakra change (chime)	Room cooling.	
Day - 6	gas liquid change then about to of motor and storage	storage is always so very cooling.	

For: EDULA SIVA REDDY COLD STORAGE

G. Haritha
Proprietor

WEEKLY REPORT

WEEK - 14 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report: "Requirement of air circulation in the cold storage"

the air inside the cold room gets heated after receiving heat from the produce and loads transmitted through the building. such condition causes the requirement of air circulation fan in the cold space this can be either forced air circulation or natural convection air circulation.

In forced air circulation fan or blower is used to use the air in flow from the cooling space to the cooling coils.

Repaid circulation by blower or fan causes moisture loss from the product.

hence proper ~~h~~ balance, between the cooling surface and the rate of air flow.

ACTIVITY LOG FOR THE FIFTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Trans Port - Activity	Edula Siva Reddy availability transport activities of work	
Day - 2	Building inches	Length 120 Breadth 120	
Day - 3	Workers	one operator one packing place fence.	
Day - 4	Department	Department of A/c operator name was. Gopalamma	
Day - 5	cold storage stock lifting	cold storage stock lifting the 5th floor.	
Day - 6	Technological development	Developments of area place Edula Siva Reddy cold storage.	

for: EDULA SIVA REDDY GOLD STORAGE

Proprietor
H. S. Reddy
G

WEEKLY REPORT

WEEK - 15 (From D..... to D.....)

Objective of the Activity Done:

Detailed Report:

classification of cold storage.

cold storage requirement of the world in order to provide food and other medical and industrial requirement cold storage is a room in a building that provide suitable condition which is demanded by classification of cold storage.

Based on their thermal incompatibility product being stored together should not show thermal incompatibility hence they are categorised according to their common environment condition requirement.

small cold storage & these are designed mainly for processing facility of vegetables and fruits.

CHAPTER 5: OUTCOMES DESCRIPTION

Describe the work environment you have experienced (in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)

Environment career : AS part of research associate with education for sustain ability at Rm university sent on invitation to environment- professional seeking information about thier back grounds

E.f work.

Benefits of a cold storage :

the main advantages of using cold storage are:-

- food product and crops, product can be stored when their supply is plentiful and can be used during the period of short supply.
- transportation of food stuff ~~spo~~ from one place to another place is possible.
- due to reduce of food spoiled by the uses of cold storages, great saving in cost- can be achieved.

cold storage practices

In a cold store the following practices should be Adopted.

- temperature control.
- Relative humidity control.
- Condensation of water vapour.
- condensation of sanitation.
- Air movement.
- stocking and material handling.

*. classification based on Activities :

Based on the Activities, cold storage can be classified as.

- multipurpose cold house.

Describe the real time technical skills you have acquired (in terms of the job-related skills and hands on experience)

* Technological Skills %

- develop and maintain local networks in ways that optimize performance.
- provide orientation and guidance to users on how to operate new software and computer equipment.
- check computer hardware (HDD, mouse, keyboards) to ensure functions.
- Install and configure appropriate software and functions according to specifications.

* Information Technology (IT) %

is the uses of computers to create, process, store, retrieve, and exchange all kinds of data and information.

- (ICT) Information & communication system technology
- technology skills in future useful in communication development required the student- future jobs in technological skills.

Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.)

The managerial skills :-

- Red chillies cold storage Private limited supporting and Edula siva Reddy auxiliary transport, activities activity of travel agencies.
- storage in that 3 or 5 year stock 300 kilow bag 450 rupees is stock at edula siva Reddy cold storage.
- Building ≈ 80 inches
length ≈ 120
breadth ≈ 120
- workers (2) and one cooperative one packing Rourse number in that edula siva Reddy cold storage

Ex:- Farmers cold storage stock one useful 3 or 5 year stock in chillies one person Ramulu Nageswaravou 300 and 500 stocks store.

- Department A/c operator Name was Gopalarama.

Describe how you could improve your communication skills (in terms of improvement in oral communication, written communication, conversational abilities, confidence levels while communicating, anxiety management, understanding others, getting understood by others, extempore speech, ability to articulate the key points, closing the conversation, maintaining niceties and protocols, greeting, thanking and appreciating others, etc.,)

Market Potential :

Cold storages are essential for extending the shelf life. period of marketing, avoiding glut, reducing transport bottlenecks during peak period of producing and maintenance of quality of produce.

The development of cold storage industry has therefore an important role to play in reducing the wastages of the perishable commodities and thus providing remuneration prices to the growers.

Basic and Presumptions :

The project is based on an average 90% Present capacity utilisation, three shifts working per day and 300 working days per annum.

For economic viability on Ice Block manufacturing unit has also been included in the project.

CASCADE Refrigeration

The traditional single-stage compression refrigeration system (STCRS) and single-stage absorption refrigeration system are two basic forms of the refrigeration technology.

CRS has a wide range of applications, for example in the field of hypothermic medicine, cryopreservation for instruments.

In vapour compression and vapour compression cascading, low temperature cycle is for food items, which require low temperature and high temperature cycle for food items.

After modification in the system design of the cold storage, the effect of both types of cascading i.e., CACRS and CCRS are observed by thermal analysis.

Describe how could you could enhance your abilities in group discussions, participation in teams, contribution as a team member, leading a team/activity.

Edula Siva Reddy cold storage abilities we are my class friends divided into 2 groups.

(1) Nageswerrreddy G sir group (2) S. Ratu sir group.

(A) Group we are all discussions for about the cold storage.

my group student is P. Ravindra, Peddha Hussian,

my Name Pathima Ravindra am write to long term intership project work about the edula siva Reddy cold storage.

we are all participation of team and home broken he was explained to cold storage and guidance of more information.

meant my friends consent leasing about cold storage.

otherwise many information (of) write on the project work record.

In cold storage room 7°C temperature all stocks cooling in cold storage stock.

We are viewed to many stocks lift to upper floor and 5th floor stocks are also lift in ground floor room.

so many stocks left into the loading to truck, so many item export to some, some markets.

cold storage stock lifting in door loading the 5th floor kept to chillies, tur dal, chana, whole moong chick peas, split moong, moong dal temperature $+10^{\circ}\text{C}$ storage temperature ammonia used to total boxes $3 \times 5 = 15$ and 16.0 cooling cells - pad water not spoiled many products this cold storage.

Describe the technological developments you have observed and relevant to the subject area of training (focus on digital technologies relevant to your job role)

technological developments may be observed and set:-

technological developments area place Eedula Siva Reddy cold storage.

me observed many activities services.

Difference of some items kept in cold storage.

there at the cold storage importance of crops coming to edula siva Reddy cold storage were house.

me view to many crops impotes.

ex ^o mango, Red grams, Dry chillies, Channa, Black grams, whole mango . e.t.c.

chilling injury ^o chilling injury is caused by low temperature and generally effects chillies, and crops causing improve ripening discolouration texture change e.t.c.

with a higher recommendation storage temperature system of this discs are decayed.

the chilli injury is dependent on storage temperature and storage time. chilling injury is particularly troublesome because symptoms are not visible immediately on the product. products that too heated in the store might have develop symptoms during transportation or marketing.

- water melon -4°C
- potatoes -3.3°C
- chillies -7.2°C

thermal insulation of cold storage

since heat flows from high temperature areas to lower temperature regions. there is a continuous flow of heat from the surrounding to the refrigerated or conditioned space, thereby increasing the temperature of conditioned space (heat gain).

Any material that retards or offers resistance to the flow of heat through it is called an insulator.

Student Self Evaluation of the Short-Term Internship

Student Name: P. Ravindra

Registration No: 2110041015

Term of Internship: From: 22/01/2024 To: 30/04/2024

Date of Evaluation: 30/04/2024

Organization Name & Address: Edula Siva Reddy cold storage
Gopalavarma.

Please rate your performance in the following areas:

Rating Scale: Letter grade of CGPA calculation to be provided

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	OVERALL PERFORMANCE	1	2	3	4	5

Date:

P. Ravindra
Signature of the Student

Signature of the Intern Organization



Scanned with OKEN Scanner

Student Name: P. Ravindra Registration No: 211041015

Term of Internship: From: 22/01/2024 To: 30/04/2024

Date of Evaluation: 30/04/2024

Organization Name & Address: Edula siva Reddy Cold Storage Sona
Sandra Omer (v) Kolikunthla

Name & Address of the Supervisor : Gopal Rao
with Mobile Number : 949040 2714

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	OVERALL PERFORMANCE	1	2	3	4	5

Date:

For: EDULA SIVA REDDY COLD STORGE

[Signature]
Signature of the Supervisor
Proprietor
[Signature]



Vapour Barriers

properties of insulation materials

MATERIAL	Density (kg/m ³)	thermal cond. (W/mK)	temperature (°C)
polyurethane	30-32	0.015	110-200
thermoel	15-30 kg	0.025 to 0.028	75-200
cork	120-160	0.036	90-150
phenothem	30-40	0.016	130-196

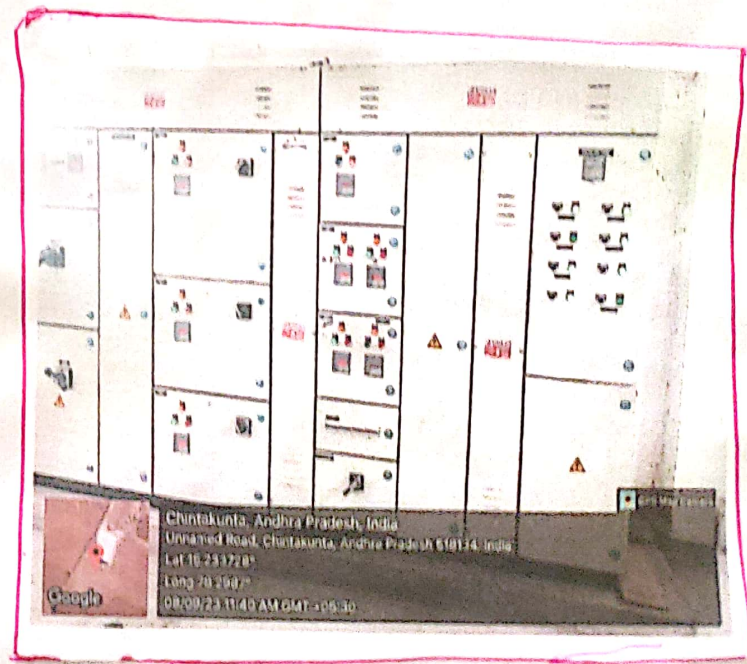
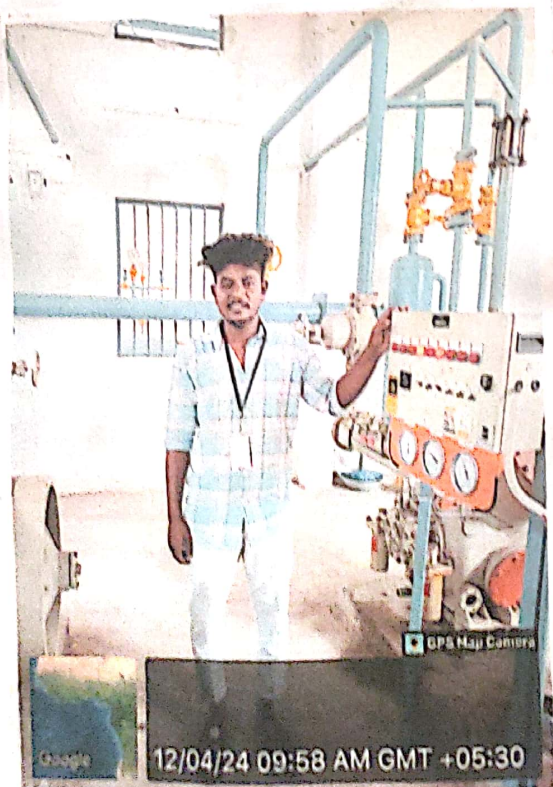
Vapour Barriers

the water vapour in air tends to move from warmer region to colder region due to vapour pressure difference. As the temperature difference between the surrounding and conditioned area.

cold storage, refrigerated area increase, the vapour pressure difference also increases,

the insulation materials can be porous to some extent, due to which moisture from outside can migrate into cold storage area.

PHOTOS & VIDEO LINKS



Air movement : In cold storages, it is very important to provide good air circulation between the boxes and around the product.

Adequate air distribution system is required to maintain a uniform temperature throughout the cold storage. Ventilation should be kept at minimum in order to maintain optimum temperature and relative humidity.

Stacking and material handling :

Stacking is one of the important factors in all types of storage and transport. It is particularly affected by the packing of different products whether it is by carton, tray, wooden, net, etc.

In cold storage according to product the stacking density of produce and chana, moongdal, in storage 50 kg and looking for this season stacking must be proper and stable to avoid damage during storage and transportation.

Result and DISCUSSION

Firstly, the survey and data collection were done and building details and refrigeration system details were obtained. After this survey energy consumption of the cold storage, refrigeration capacity of the system and load calculations were done using Equest software and calculation

the cooling load was coming out to be 150 tones. In order to reduce the cooling load and energy consumption.

cascaded refrigeration system is also used to increase the COP, in this project we have done analysis on two types of cascading i.e. VC-VC and VC-VC

Sensible heat loss through walls

	with green wall (W/m ²)	without green wall (W/m ²)
South	21.87	43.75
East (W)	13.67	28.36
West	22.45	30.56

EVALUATION

INTERNAL ASSESSMENT STATEMENT

Name Of the Student: PATHIMA Ravindra
Programme of Study: Long term Internship Project
Year of Study: 2021-2024
Group: B.A (H.B.D)
Register No/H.T. No: 2111004015
Name of the College: S.V.B. Govt Degree college Kollunkhla
University: Rajaseema University Kuvhaal

Sl.No	Evaluation Criterion	Maximum Marks	Marks Awarded
1.	Activity Log	10	
2.	Internship Evaluation	30	
3.	Oral Presentation	10	
	GRAND TOTAL	50	

Date:

C. H. S. V. A. R. E. D. Y. C. O. L. D. S. T. O. R. G. E.
Signature of the Faculty Guide

Proprietor

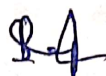
SA

EXTERNAL ASSESSMENT STATEMENT

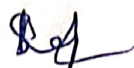
Name Of the Student: Pothima. Ravindra
 Programme of Study: Long term Internship Project
 Year of Study: 2021 - 2024
 Group: B.A. (H.B.D)
 Register No/H.T. No: 21110041015
 Name of the College: S.V.B Govt. Degree college Kotturda
 University: Rayala-seema University Kurnool.

Sl.No	Evaluation Criterion	Maximum Marks	Marks Awarded
1.	Internship Evaluation	80	
2.	For the grading giving by the Supervisor of the Intern Organization	20	
3.	Viva-Voce	50	
	TOTAL	150	
GRAND TOTAL (EXT. 50 M + INT. 100M)		200	

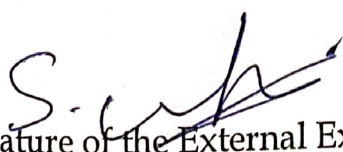
Signature of the Faculty Guide



Signature of the Internal Expert



Signature of the External Expert



Signature of the Principal with Seal