

**ERP - PROJECT**

**SUGMAYA**

**END USER DOCUMENT**

**FOR**

**PLANT MAINTENANCE**

**GENERAL MAINTENANCE**

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## **1 DOCUMENT CONTROL**

This is a controlled document and will be maintained with UJVNL IT team.

Changes to this document will be recorded below and must be published to all interested parties.

### **1.1 DOCUMENT HISTORY**

Version	Date	Author	VERSION DETAILS
V01	06-02-2018	Nimish Agrawal	First ISSUE

### **1.2 DISTRIBUTION**

Date	Name	Purpose
	Mandeep Singh	For Information
	Brijesh Yadav	For Information

## **2 PROCESS OVERVIEW: GENERAL MAINTENANCE**

The General maintenance process shall consist of the following major activities:

1. Raising of General Maintenance notification to notify the responsible Maintenance department/ main work center.
2. Notification release (Put in process) by maintenance dep't.
3. Creation of General Maintenance order by maint. dep't if permit, material or external service (contractual job) is needed to carry out the maintenance.
  - Planning of operations (activities)
  - Planning of materials required
  - Planning of manpower required
  - Planning of external service quantity required
4. Release of order by authorized person in maintenance dep't.
5. Printing of materials Reservation slip (SIV) for issuing materials from store by maint. dep't
6. Issue of materials from store by store dep't
7. Execution of work at site by internal manpower and/or external agency.
8. Time confirmation of order operations (internal) by maint. dep't
9. Entry of findings (defect, cause, tasks etc.) in the General notification by maint. dep't
10. Completion of tasks in notification and Notification completion (NOCO)
11. Creation of service entry sheet for the external operations (if done by external agency) by maint. dep't
12. Entry of consumed quantity of external services in the service entry sheet and acceptance/approval of service entry sheet.
13. Technical Completion (TECO) of order.
14. Month-end settlement of Maint. order by F&A dep't.
15. Business completion by maint. dep't

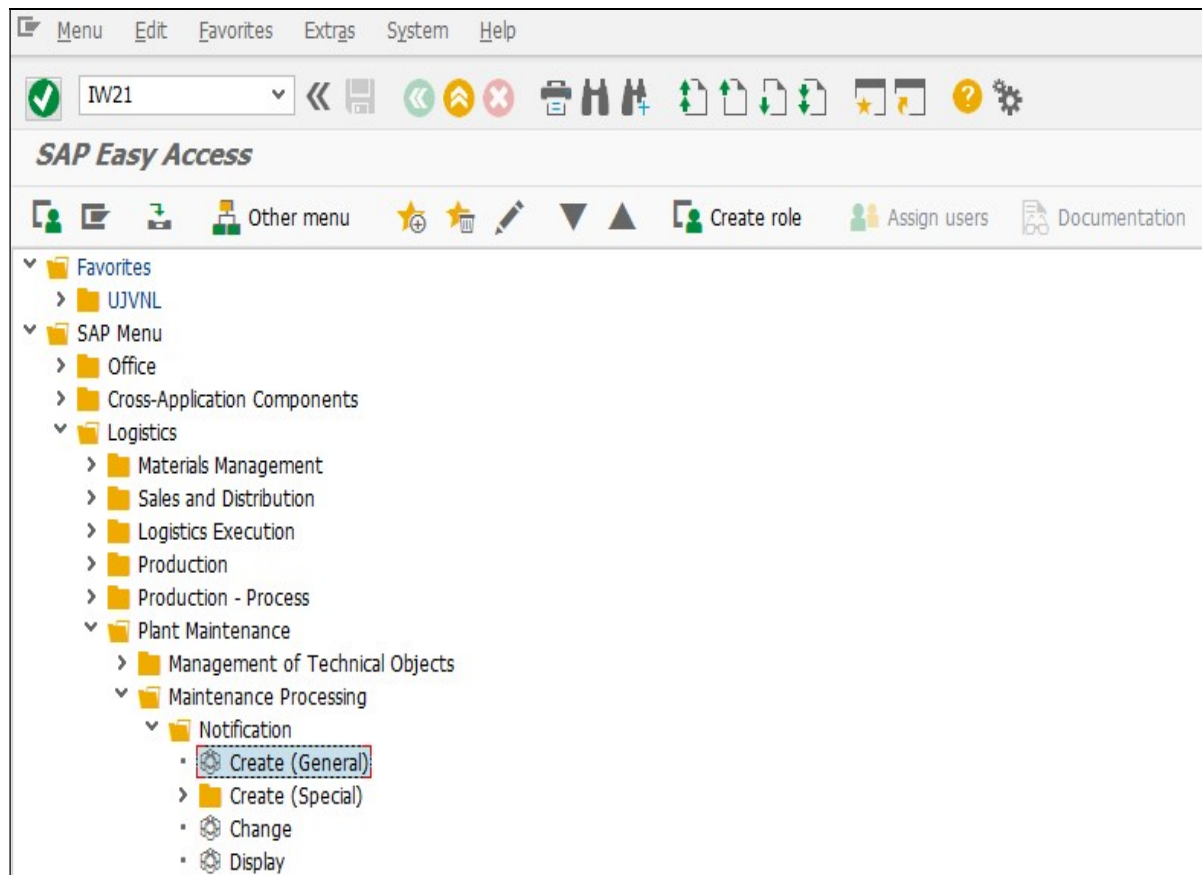
### **3 BUSINESS PROCESS PROCEDURE: GENERAL MAINTENANCE**

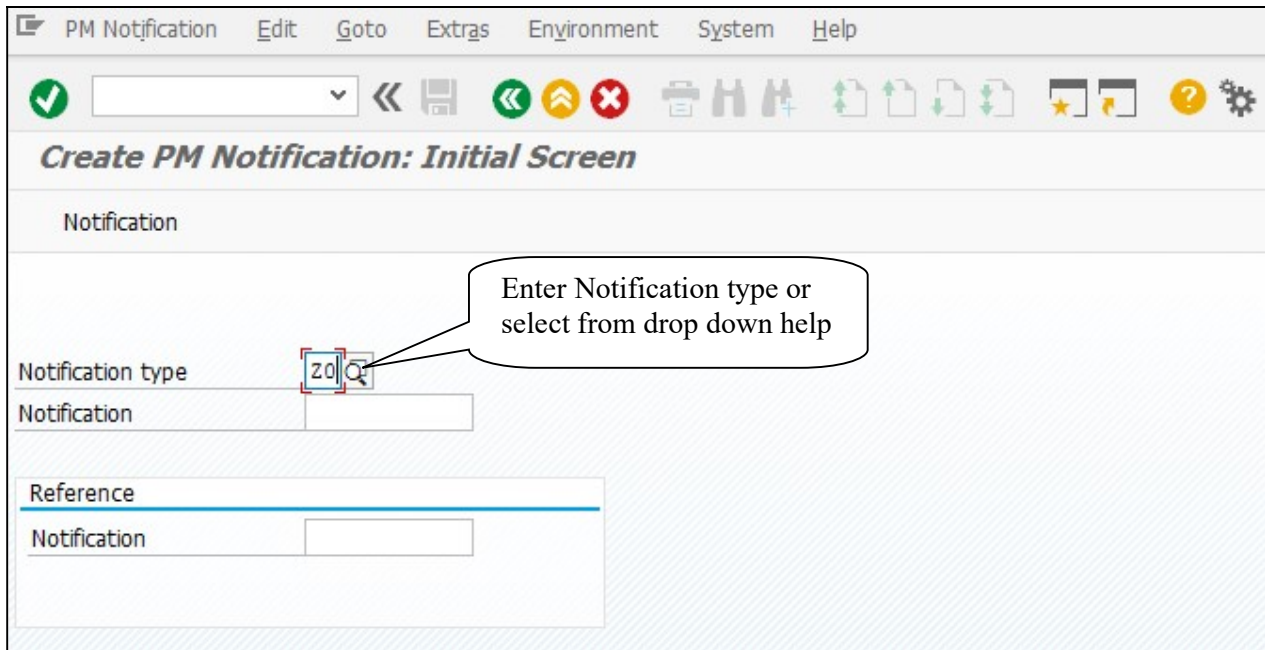
#### **3.1 CREATE GENERAL MAINTENANCE NOTIFICATION**

When operation department will notice an abnormality or any job requirement falling under general maintenance category, then it will raise a notification of type Z0: General Maintenance request.

It will enter a brief description of Work to be done, Reference object (Functional Location / Equipment) related with that general work, optionally the detail description in subject long text and task required to be done.


<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Notification → Create (General)
<b>Transaction Code</b>	IW21





On running IW21, we get the initial screen as shown below:

Step No	Field Name	Description	User Action and Values
1	Notification Type	Select type of Notification as per requirement	Notification type Z0 is for General Maintenance Request. Select from dropdown list (F4 help for the field).

Press "Enter" key or select "Enter" icon . Create PM Notification: General Maintenance screen will open.

**Create PM Notification: General Maintenance**

Notification: 000000000001 Z0 General Maintenance of Compressor

Notific. Status: OSNO

Order:

**Notification Header** | Reference Object | Location data | Items | Tasks | Activities

**Reference object**

Functional loc.: 1305-COM-AICR-AICS AIR CONDITIONING SYSTEM

Equipment: 11000742 COMPRESSOR-1 OF AIR CONDITIONER -1

Assembly:

**Subject**

Coding:

Description: General Maintenance of Compressor

Subject Long Text

07.02.2018 10:46:37 INDIA CHAKRAVARTHY DG (CHAKRAVARTHY)

Please check the compressor of Air Conditioning System

**Responsibilities**

Planner group: 001 / 1305 OPH & ELE Maint

Main WorkCtr: E&M\_PH1 / 1305 ELECTRICAL MAINTENANCE-1

Reported by:

Notif.date: 07.02.2018 10:41:57

**Start/End Dates**

Required Start: 08.02.2018 10:46:45 Priority: 3 3-Medium

Required End: 10.02.2018 0:46:45

Step No	Field Name	Description	User Action and Values
1	Notification (short text)	Notification short text (or title of the PM notification)	Enter a short text. Long text is available, if needed.
2	FunctLocation	Functional Location number for which the notification refers	Enter a functional location number, if known or select from F4 help. Can be determined from the equipment
3	Equipment	Equipment number for which the notification refers (reference object)	Enter an equipment number, if known or select from F4 help.
4	Description (Long text)	Long text description	Enter a long text for detail explanation of Work or entering comments. It is also used for entering comments at any stage of notification processing by different persons. The person name and time is logged with each comment.
5	Planner Group	Group responsible for planning tasks	Enter department and maintenance plant. Will be automatically determined from the reference object.
6	Main WorkCtr	Work center responsible for the completion of the maintenance tasks	Enter a work center and maintenance plant. Will be automatically determined from the reference object.
7	Reported By	Person who reported request/problem	NA
8	Notif.Date	Date and time the request/problem was noted	Defaults to current date and time.

Items (damage and cause) are optional entries in General Maintenance Notification.  
Hence directly go to All tasks tab page to enter the required tasks as shown below.



**Create PM Notification: General Maintenance**

Notification: \$000000000001 20 General Maintenance of Compressor

Notific. Status: OSNO OST5

Order:

Notification Header | Reference Object | Location data | Items | **Tasks** | Activities

No.	Code gr...	Ta...	Task code text	Task text	T...	Task Status	User Status
1	PM1	1	Task 1			TSOS	

Click to save

Maintain some tasks by selecting from the drop-down list and press enter

After maintaining the task as the enter key will be pressed then this status will come

Additional text can be added by user in the Task text field to describe/elaborate the task if task code text is not sufficient. Save the Notification.

PM Notification | Edit | Goto | Extras | Environment | System | Help

**Create PM Notification: Initial Screen**

Notification

Notification type:

Notification:

Reference

Notification:

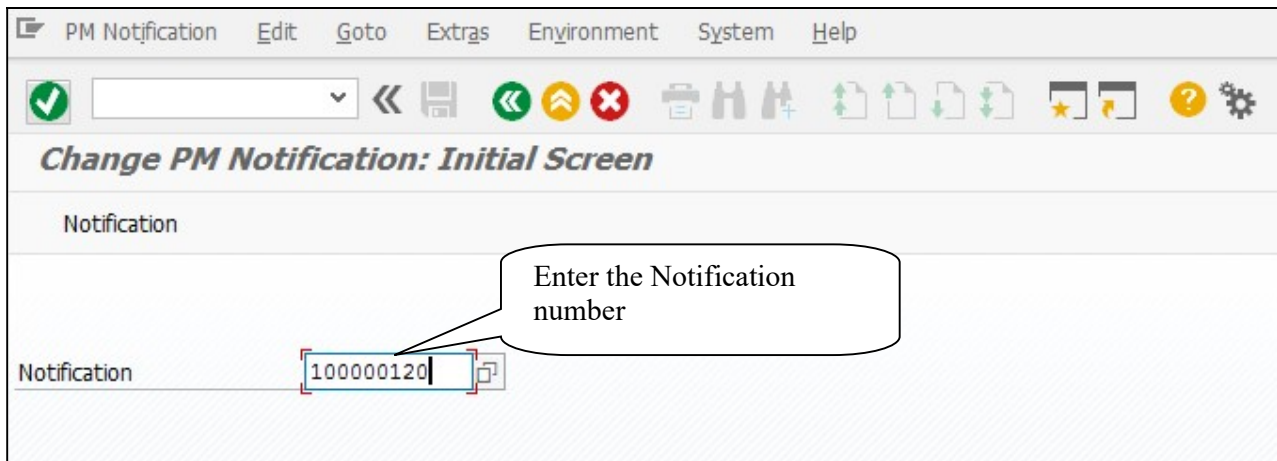
System will save this notification with generating an internal number

Notification 100000120 saved

### 3.2 RECEIPT OF GENERAL MAINTENANCE NOTIFICATION BY MAINTENANCE

The Notification will be received by the concerned Maintenance department to which it was referred. An authorized person from that dept. will release the notification after assessing the relevance of the job required. Before releasing the notification, he will check the Required Start / End dates, Planner group and Main work center and assign task(s) if not entered before.

<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Notification → Change
<b>Transaction Code</b>	IW22



Enter the following data in the Input screen to open the notification in Change mode

Step No	Field Name	Description	User Action and Values
1	Notification	Number of the notification to be changed / updated	Enter the notification number 100000120

Press “Enter” key or select “Enter” icon . Change PM Notification: General Maintenance screen will open.

#### **Alternate method to choose the notification from change notification list:**

<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Notification → List Editing → Change
<b>Transaction Code</b>	IW28

Program Edit Goto System Help

Change Notifications: Selection of Notifications

Notification status

☒ Outstanding ☐ Postponed ☒ In process ☐ Completed Sel.profil  Addr. ☒

Notification selection

Notification	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Notification type	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Functional Location	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Equipment	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Material	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Serial Number	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Addit. device data	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Order	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Notification date	09.11.2017	to	07.02.2018	<input type="button" value="↕"/>
Partners	<input type="text"/>			<input type="button" value="Cls."/>

Deselect by clicking

Default dates for last 3 months are selected and can be modified.

Program Edit Goto System Help

Change Notifications: Selection of Notifications

Notification status

☒ Outstanding ☐ Postponed ☐ In process ☐ Completed Sel.profil  Addr. ☒

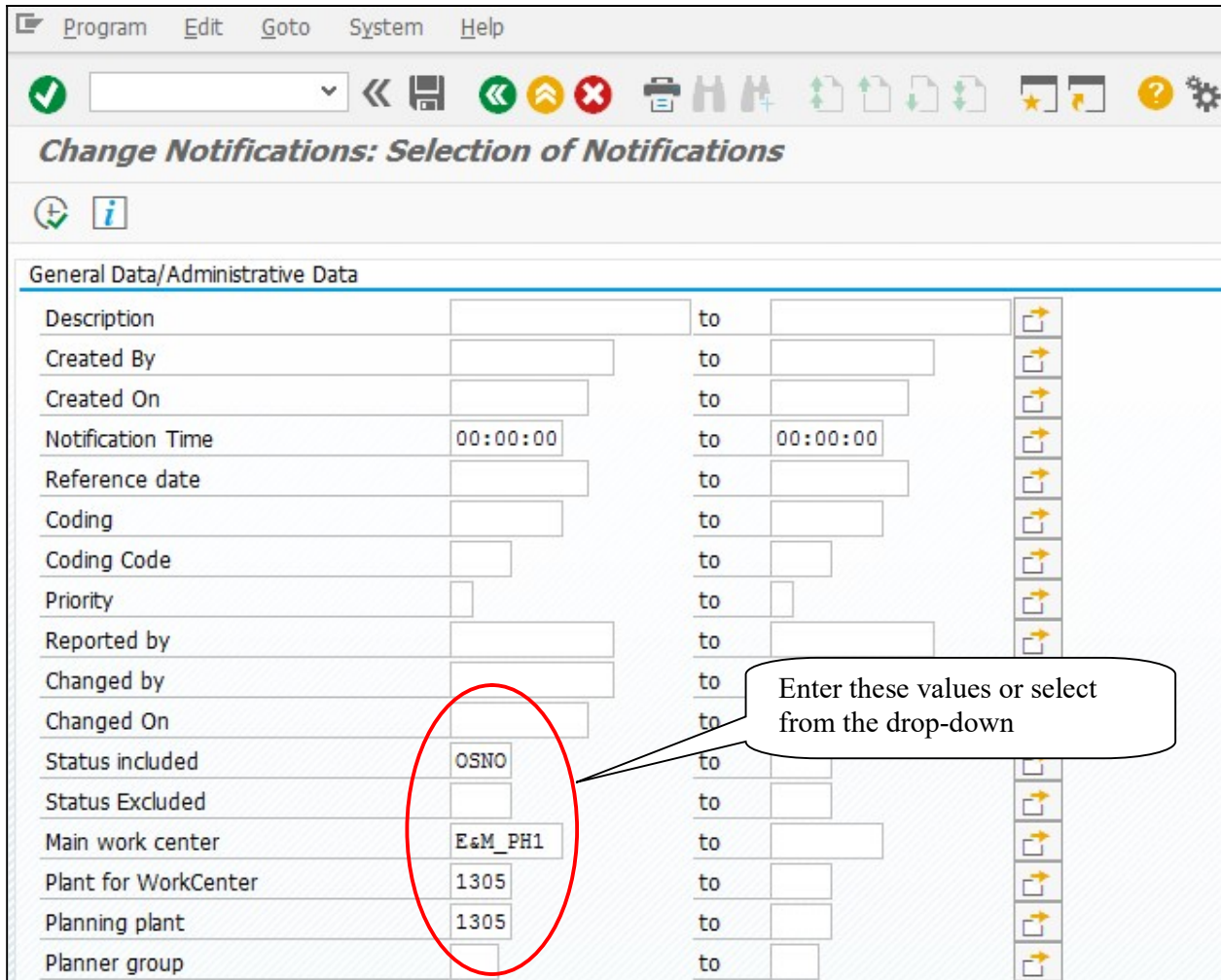
Notification selection

Notification	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Notification type	20	to	<input type="text"/>	<input type="button" value="↕"/>
Functional Location	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Equipment	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Material	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Serial Number	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Addit. device data	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Order	<input type="text"/>	to	<input type="text"/>	<input type="button" value="↕"/>
Notification date	25.01.2018	to	07.02.2018	<input type="button" value="↕"/>
Partners	<input type="text"/>			<input type="button" value="Cls."/>

Select Notification type from the drop-down



Go down in the screen. Enter selection values for notification status and selection values for your Main work center and Planner group (Maint. dep't) or select from drop-down list.



**Change Notifications: Selection of Notifications**

General Data/Administrative Data

Description		to		
Created By		to		
Created On		to		
Notification Time	00:00:00	to	00:00:00	
Reference date		to		
Coding		to		
Coding Code		to		
Priority		to		
Reported by		to		
Changed by		to		
Changed On		to		
Status included	OSNO	to		
Status Excluded		to		
Main work center	E&M_PH1	to		
Plant for WorkCenter	1305	to		
Planning plant	1305	to		
Planner group		to		

Enter these values or select from the drop-down

Go down in the screen. Enter the selection value for your **Plant** or select from dropdown list

Program Edit Goto System Help

Change Notifications: Selection of Notifications

Malfunction Data/System Availability

Malfunction start		to		
Malfunction end		to		
Start of Malfunctn (Time)	00:00:00	to	00:00:00	
Malfunctn End (Time)	00:00:00	to	00:00:00	
Funct. loc. affected		to		
Equipment affected		to		
Effect		to		
Breakdown		to		
Breakdown duration		to		
Avail.bef.malfunctn		to		
Avail.aft.malfunctn		to		
Avail.after task		to		
Cond.bef.malfunctn		to		
Cond.aft.malfunctn		to		
Cond.after task		to		


Location Data/Acc.Assignment/Maint. Plan























Maintenance plant	1305	to	
Location		to	


Click to Execute

Enter plant code/select form dropdown list

Step No	Field Name	Description	User Action and Values
1	Outstanding	Status indicator for the notification to be selected	Check this status indicator – Outstanding
2	Notification date (From & To)	Notifications dates for selection	Default from and to dates will appear with to date as today's date. Change them if require.
3	Notification type	Enter notification type(s) for selection.	Should include type Z0
4	Status included	Status which a maintenance notification should have for selection.	Enter the value as OSNO for selection. The system selects only those PM notifications which have this status and which also fulfill all the other selection criteria you have entered.
5	Plant	Plant Code	Enter your plant code or select from dropdown list.

Click  execute button at top left of the screen. You will get the list of notifications fulfilling the above selection criteria.

List Edit Goto Notification Environment Settings System Help			
 <input type="text"/>           			
Change Notifications: List of Notifications			
         			
S	Notification	Notif.date	Description
	100000062	15.01.2018	SRD Test Geneartor Unit 1
	100000063	15.01.2018	
	100000064	15.01.2018	
	100000065	15.01.2018	Test
	100000068	15.01.2018	switchyard
	100000082	17.01.2018	generator fault
	100000087	18.01.2018	rotor fault1
	100000089	19.01.2018	Turbine hunting
	100000094	20.01.2018	Motor Fault
	100000097	23.01.2018	test 12345
	100000110	01.02.2018	Test
	100000120	07.02.2018	General Maintenance of Compressor

Select your notification and click  button at top of the page or alternatively you can double click on notification number to display the notification in change mode.

- The user specific notification list selection variant can be saved after entering the required selection inputs. This way every time the user will get the selection criteria defaulted when he will run the transaction IW28.
- Same way user specific notification list layout variant can be saved after setting the columns & their sequence. This way every time the user will get the notification list layout defaulted when he will execute the transaction IW28.

Screen **Change PM Notification: General Maint**, will be shown:

After Opening the Notification, Maintenance Department will check the Notification data e.g. Planner group, Maint work center, Priority of the job etc. If any change in the data is required then that will be changed otherwise If no change is required then the Notification will be Put in Process (Released).

Maintenance notification Edit Goto Extras Environment System Help

Change PM Notification: General Maintenance

Notification 10000000 20 General Maintenance of Compressor

Notific. Status OSNO OSTs

Order

Notification Header Reference Object Tasks Activities

Reference object

Functional loc.	1305-COM-AICR-AICS	AIR CONDITIONING SYSTEM
Equipment	11000742	COMPRESSOR-1 OF AIR CONDITIONER -1
Assembly		

Subject

Coding

Description General Maintenance of Compressor

Subject Long Text


07.02.2018 10:46:37 INDIA CHAKRAVARTHY DG (CHAKRAVARTHY)

Please check the compressor of Air Conditioning System

Responsibilities

Planner group	001 / 1305	OPH & ELE Maint
Main WorkCtr	E&M_PH1 / 1305	ELECTRICAL MAINTENANCE-1
Reported by		Notif.date 07.02.2018 10:41:57

Click this green flag to Release/ Put Notification in process

Click  Green Flag button at top left of the screen to put Notification in process as shown in the above screen.

After putting Notification in Process, status of Notification will get changed from OSNO to NOPR as shown below.




Maintenance notification Edit Goto Extras Environment System Help

Change PM Notification: General Maintenance

Notification 100000120 Z0 General Maintenance of Compressor

Notific. Status **NOPR** OSTS

Order 

Click this button to create an Order

Notification Header Reference Object Location data Items Tasks Activities

Reference object

Functional loc.	1305-COM-AICR-AICS	AIR CONDITIONING SYSTEM
Equipment	11000742	COMPRESSOR-1 OF AIR CONDITIONER -1
Assembly		

Subject

Coding

Description General Maintenance of Compressor

Subject Long Text

07.02.2018 10:46:37 INDIA CHAKRAVARTHY DG (CHAKRAVARTHY)  
Please check the compressor of Air Conditioning System



Responsibilities

Planner group	001 / 1305	OPH & ELE Maint
Main WorkCtr	E&M_PH1 / 1305	ELECTRICAL MAINTENANCE-1
Reported by		Notif.date 07.02.2018 10:41:57

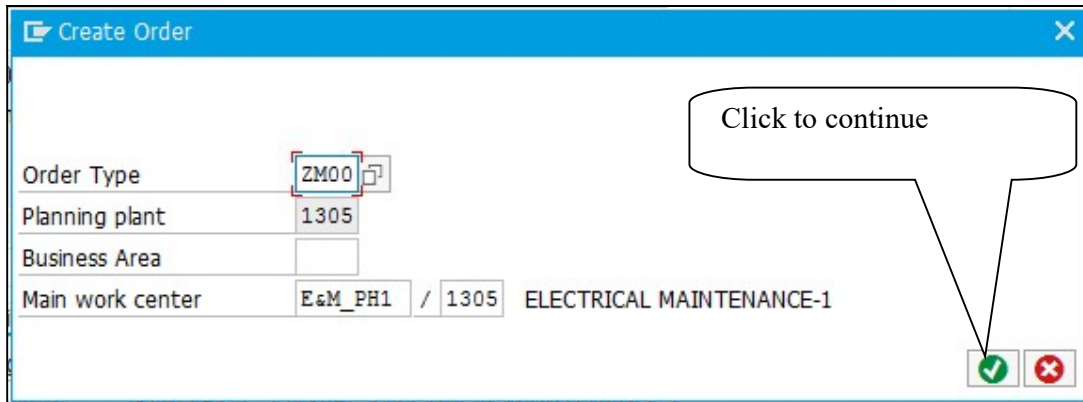
### 3.3 CREATION OF GENERAL MAINT. ORDER FOR THE NOTI BY MAINTENANCE

After releasing the Notification, if material, external service (contractual job) and permit is needed to carry out the maintenance, the maintenance department will do the planning (e.g.- external service, Material etc.) and therefore create a Maint. order to act upon the notification.

**Process continues from the previous screen.**

- An Order can be created directly from the Notification screen. To create an Order directly from the notification screen, click button  (create order), as shown in the above screen shot.
- Then one pop will come as shown below where order type, Plant and Work center are defaulted and then press enter or click 

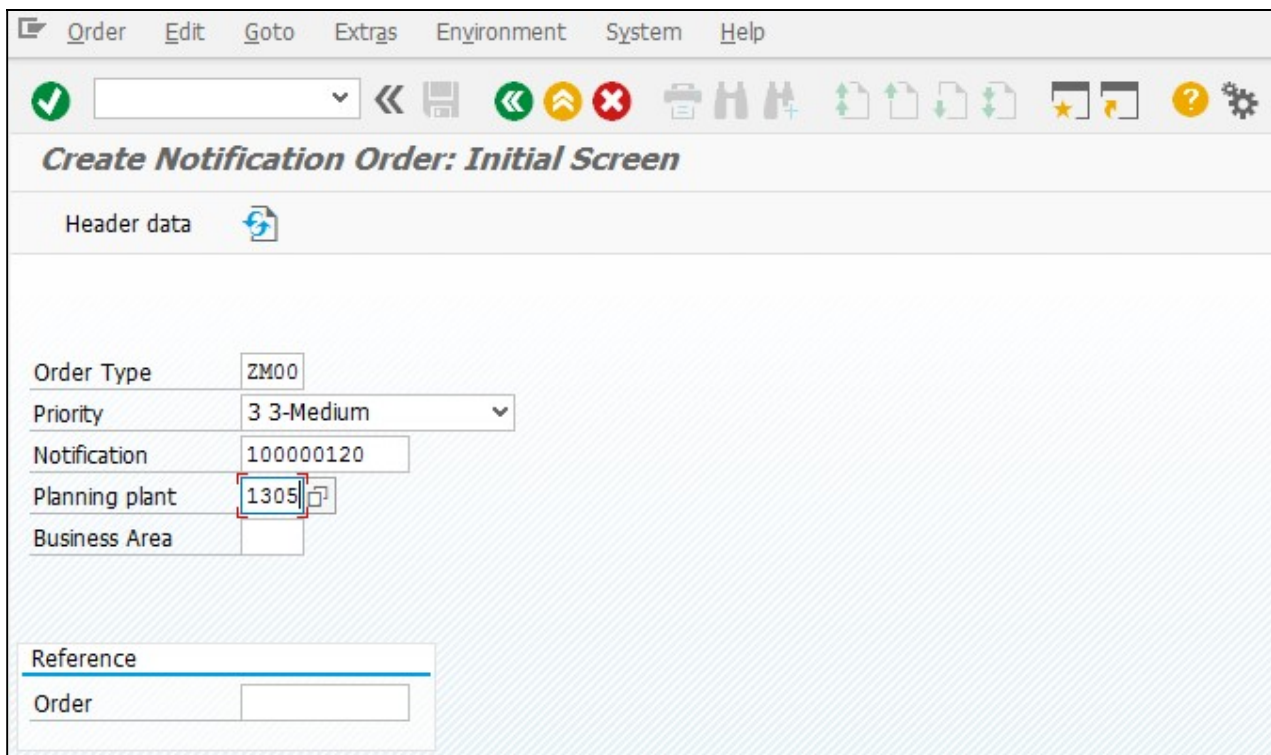




**Alternate method to create order for the notification:**


<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Order → Create(Special) → Order for notification
<b>Transaction Code</b>	IW34

On the screen **Create Notification Order: Initial Screen**, make the following entries:



Step No	Field Name	Description	User Action and Values
1	Order Type	Select from the drop-down list. Enter it if known at this stage.	ZM00 is for General Maint. order

2	Notification	Notification No for which the order to be created	Enter the Notification No. if known or select from the drop-down list.
3	Planning Plant	Planning Plant for which notification has been created	Planning Plant - 1305

Press "Enter" key or select "Enter" icon . Create General Maintenance order: Central header screen will open. Data will get copied from the Notification E.g. Order short text, Planner Group, Maint work center, Reference object etc. If any changes are required it can be done.

Order   General Maintenance of Compressor  
 Sys.Status

**Create General Maintenance order : Central Header**

HeaderData | Operations | Components | Costs | Partner | Objects | Additional Data | Location | Planning | Control

Person responsible  
 PlannerGrp  /  OPH & ELE Maint  
 Mn.wk.ctr  /  ELECTRICAL MAI...

Message   
 Costs   
 PMActType   
 SystCond.   
 Address

Dates  
 Bsc start   Priority   
 Basic fin.   Revision

Reference object  
 Func. Loc.  AIR CONDITIONING SYSTEM  
 Equipment  COMPRESSOR-1 OF AIR CONDITIONER -1  
 Assembly

Malfnctn data | Damage | Notif. dates

Malf.start    
 MalfEnd   Breakdown dur.  H

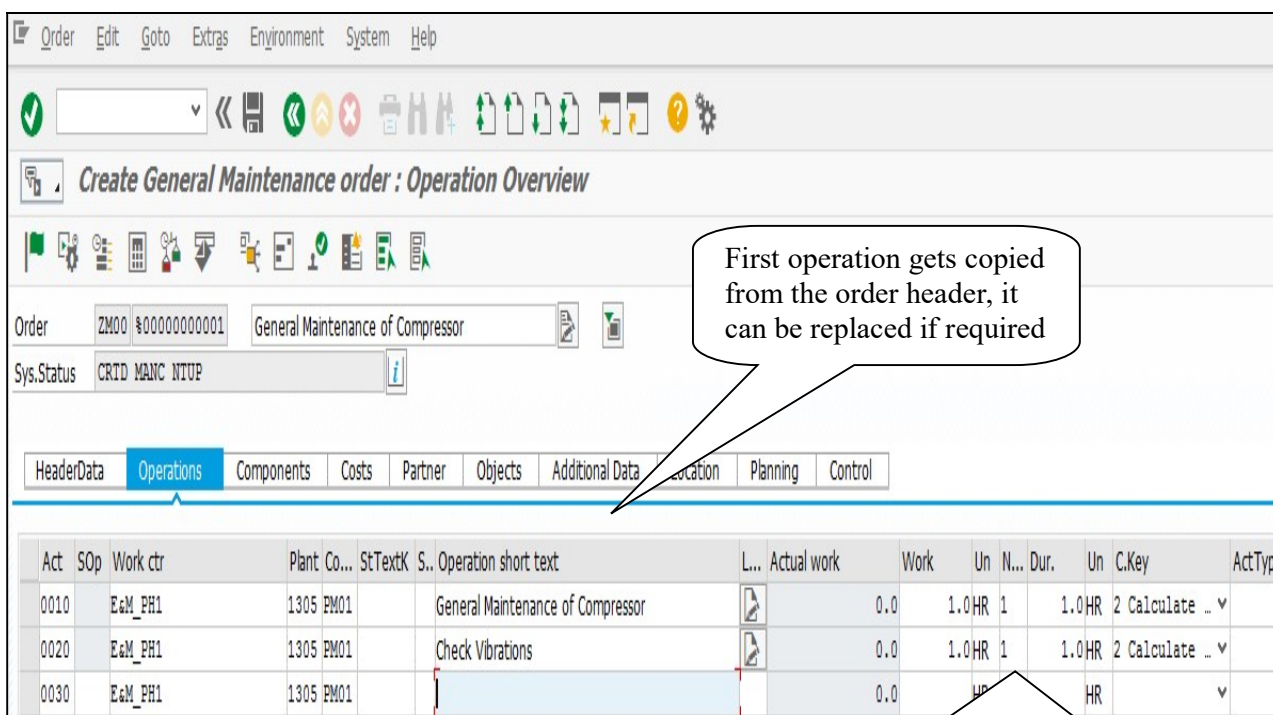
First operation  
 Operation  CcKey   
 WkCtr/Plnt  /  Ctrl key  Acty Type   
 Work durtn  HR Number  Optn dur.  HR  
 Person. no

### 3.4 RESOURCE PLANNING IN GENERAL MAINTENANCE ORDER FOR MATERIALS

According to the job planning, assign the operations in the order, which need to be carried out.

- The first operation in the operations screen gets copied from the order header description as default by the system as shown above. It can be replaced with some other operation text as required.
- If any Task list is available to carry out the required job then operations of that Task list can also be copied directly to the order using menu function: Extras > Task list selection > To reference object/ General task lists.


Go to Operations tab page by clicking on **Operations**

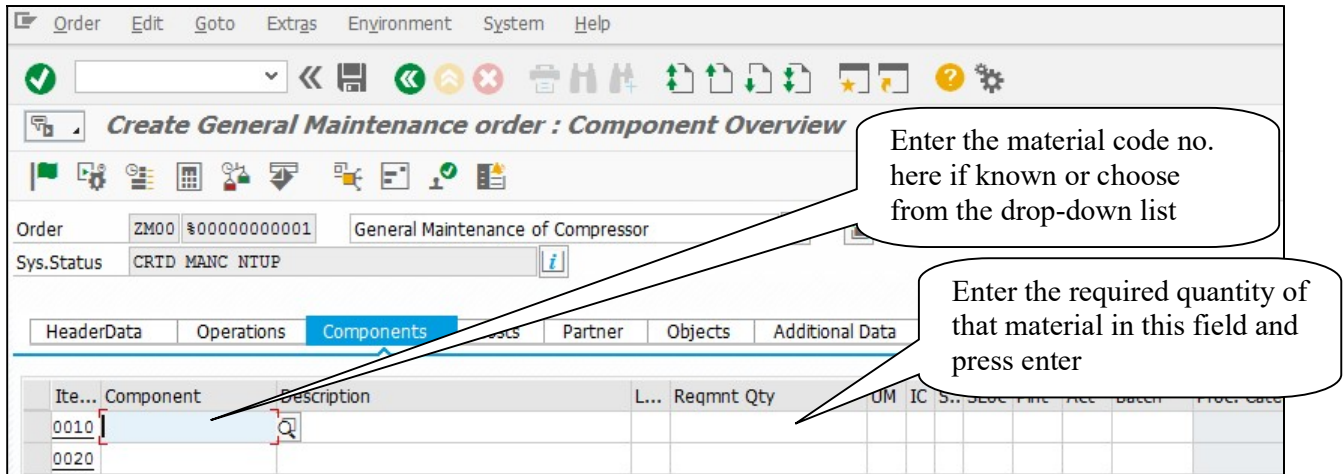


Act	SOp	Work ctr	Plant Co...	StTextK	S...	Operation short text	L...	Actual work	Work	Un	N...	Dur.	Un	C.Key	ActTyp
0010	E&M_PH1		1305	PM01		General Maintenance of Compressor		0.0	1.0HR	1		1.0HR	2	Calculate ...	
0020	E&M_PH1		1305	PM01		Check Vibrations		0.0	1.0HR	1		1.0HR	2	Calculate ...	
0030	E&M_PH1		1305	PM01				0.0					HR		

After entering the Operation text, enter the no. of manpower in Number field and enter the proposed duration in the Dur. field, based on these entries system will calculate the value of Work.

Control Key	Description
PM01	For Internal operations
PM03	For external services (operations to be performed by contractor)
WCM	Work Clearance Management (For operation pertaining to Permit for work)

If some material is required for any of the operations, then go to the components screen by clicking on the components tab 

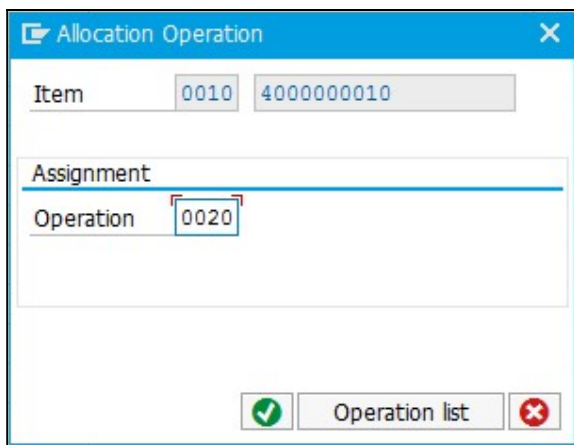


Enter the material code no. here if known or choose from the drop-down list

Enter the required quantity of that material in this field and press enter

Item	Component	Description	L...	Reqmnt Qty	UM	IC	S...	SE	PL	PLC	Batch	Proc	Cost
0010													
0020													

Enter the material code no. if known or select the material from the drop-down help, and enter the required quantity as per the requirement. Then press ENTER; now system will ask you for which operation you want to assign this material as shown below, either enter the operation number or click on Operation list button and select the desired operation.




Allocation Operation

Item: 0010 4000000010

Assignment

Operation: 0020

Operation list

click on 



Click to save the order

Order Edit Goto Extras Environment System


**Create General Maintenance order : Component Overview**


Order ZM00 000000000001 General Maintenance of Compressor

Sys.Status CRID MANC

HeaderData Operations **Components** Costs Partner Objects Additional Data Location Planning Control

Ite...	Component	Description	L...	Reqmnt Qty	UM	IC	S...	SLoc	Plnt	Act	Batch	Proc. Category
0010	40000000010	Motor 50 HP		1	EA	L		0001	1305	0020		Reservation for Order
0020												

Click Save button  in the standard toolbar at top of the screen to save the Order.

 Order 100000120 saved with notification 100000120

System will give a message in the message bar that your order saved as shown above.

### 3.5 RELEASE OF GENERAL MAINTENANCE ORDER BY MAINT. DEPARTMENT

- Maintenance order needs to be released by authorised maintenance person, because only after the order release, one can withdraw materials from store against the Material Reservation no. generated by system for any stock material assigned in the order, so that work can be started at site.
- Secondly if any external services are also assigned in the order, then system generates Purchase Requisition (for services from existing Contract) or service Purchase requisition (for new service requirement in absence of Contract) at the time of order release.

<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Order → Change
<b>Transaction Code</b>	IW32

Order Edit Goto Extras Environment System Help

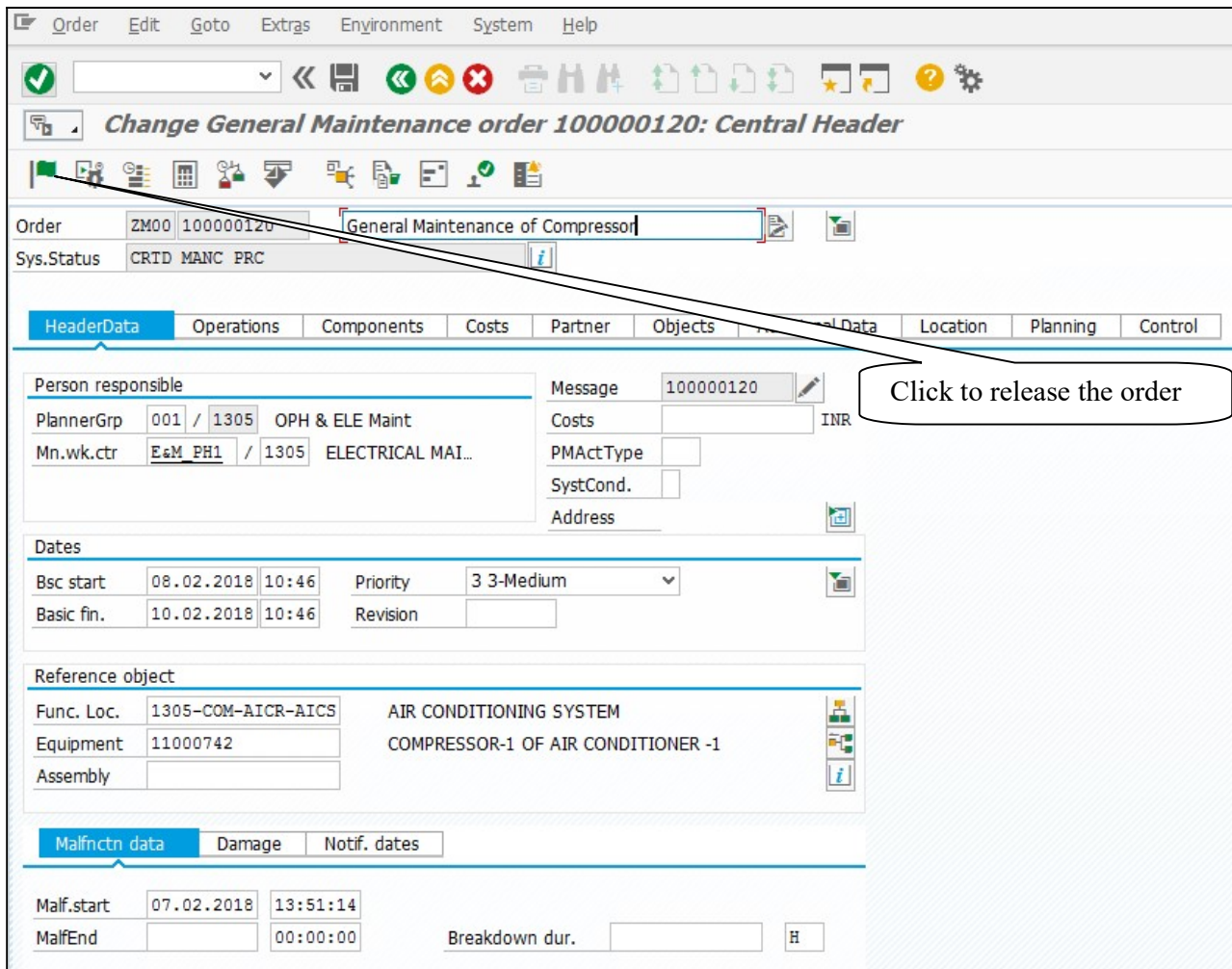
**Change Order: Initial Screen**

Header data Operations Components Costs Additional data Planning Control

Order 100000120

Enter your order number or select from the F4 help

Press "Enter" key or select "Enter" icon . Order header screen will open.



Order: ZM00 100000120 General Maintenance of Compressor

Sys.Status: CRTD MANC PRC


Person responsible: PlannerGrp 001 / 1305 OPH & ELE Maint, Mn.wk.ctr E&M PH1 / 1305 ELECTRICAL MAI...


Message: 100000120

Dates: Bsc start 08.02.2018 10:46, Basic fin. 10.02.2018 10:46, Priority 3 3-Medium

Reference object: Func. Loc. 1305-COM-AICR-AICS AIR CONDITIONING SYSTEM, Equipment 11000742 COMPRESSOR-1 OF AIR CONDITIONER -1

Malfnctn data: Malf.start 07.02.2018 13:51:14, MalfEnd 00:00:00

Click  button at application toolbar at top to release the order.

You will get system message  Order 100000120 will be released after update and the order gets REL status by replacing CRTD, as shown below.

Order Edit Goto Extras Environment System Help

Change General Maintenance order 100000120: Central Header

Complete (business)

Order ZM00 100000120 General Maintenance of Compressor

Sys.Status REL MACM PRC SETC

HeaderData Operations Components Costs Partner Objects Additional Data Location

Person responsible


PlannerGrp 001 / 1305 OPH & ELE Maint

Mn.wk.ctr E&M\_PH1 / 1305 ELECTRICAL MAI...

Message 100000120

Costs 0.00 INR

PMActType

Click  button to check the system status on order, shown below:

Extras Edit Goto System Help

Change Status

Order 100000120 Order Type ZM00 Planning plant 1305

Description General Maintenance of Compressor

Status Business processes

Syst. Status	X	St...	Text
REL	<input checked="" type="checkbox"/>	REL	Released
MACM	<input checked="" type="checkbox"/>	MACM	Material committed
PRC	<input checked="" type="checkbox"/>	PRC	Pre-costed
SETC	<input checked="" type="checkbox"/>	SETC	Settlement rule created

Status with Status Number	X	Status	Text	No.

Status Without Status No.	X	Status	Text


Active Status


Change Docs

Status Profile



Materials cannot be withdrawn from stores for the order unless it is released and has got the status REL. Always check before going to the store to draw the material that order has got released or not.

Click Save button  in the standard toolbar at top of the screen to save the Order.

 Order 100000120 saved with notification 100000120

System will give a message in the message bar that your order saved as shown above.

### **3.6 MATERIAL WITHDRAWAL FOR THE WORK ORDER**

If any spares are required before executing the actual work and stock of which is available in the store, then maintenance department will first draw that material from the store.


When the order will be released system will automatically check the availability of material (If assigned in the order) in the store and generate a Reservation no. for that material(s), against which that material can be drawn from the store. To get that reservation no., open Component tab of your order and note the Reservation number.

- For drawing material from store, Material Requisition slip needs to be printed first as defined in the Materials management (MM) module procedure of UJVNL  
(Please refer relevant user manual of MM module.)
- Now the maintenance person will go to store with the printed Material Requisition Slip (if required and if defined in MM module process), duly signed by authorized person from his Dep't and draw the material.

### **3.7 ISSUE OF MATERIALS FROM THE STORE BY MM DEPT.**

If any materials have been assigned to any operations in the order, with stock available in store then store person will issue that materials against the order with reference to the reservation no. generated for the order.

- The maintenance person will go to store for picking the materials against order no./Reservation number
- Store person will run goods movement transaction in SAP MM module, enter the Reservation no./Order no. & execute the goods issue in the system. This will result in posting of Material document with

following system message  Material document 4900000150 posted

- Then store person will physically issue all the materials to the maintenance person.



When the material gets issued from the store against Maintenance order, the order gets a new status GMPS (Goods movement posted) as shown below. The Actual cost of Materials is also updated in the Costs tab as shown below.



Order Edit Goto Extras Environment System Help

Change General Maintenance order 100000120: Cost Overview

Complete (business)

Order ZM00 100000120 General Maintenance of Compressor

Sys.Status REL **GMPS** MACM PRC SETC

HeaderData Operations Components **Costs** Partner Objects Additional Data Location Planning Control

Estimated costs 0.00 INR

Val.in Object Curr. INR

Val.in CoAreaCurr. INR

Rep. Plan/Act. Rep. Budget/Commit.

Overview Costs Quantities Key figures

Group/Ds...	Est. costs	Plan costs	Act. costs	C.
Costs	0.00	500.00	500.00	INR
	0.00	500.00	500.00	INR

### 3.8 EXECUTION OF WORK AT SITE BY INTERNAL MANPOWER

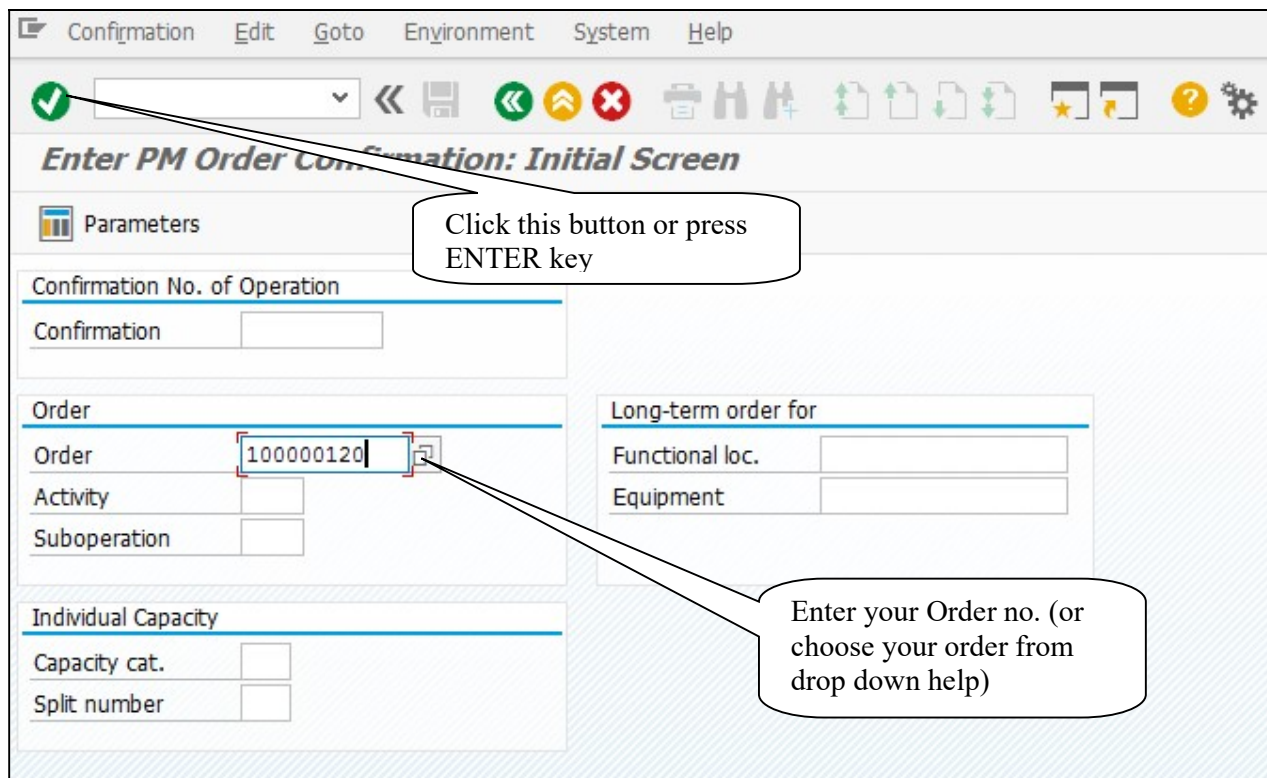
The internal manpower can execute the work at site now as per order operations, since following functions are performed.

- Required Permit(s) approved and issued
- Work order is released
- Withdrawal of required materials as planned in the order

### 3.9 TIME CONFIRMATION OF ORDER OPERATIONS BY MAINT. DEP'T

The actual time consumption for each operation of work order will be known only after executing the work at site. Then time confirmation of work order operations (internal) can be entered in the system to record that how much time was taken for each operation. This will provide accuracy of planning by comparing planned work time in order and actual time, as confirmed.

<b>Menu Path</b>	SAP Menu → Logistics → Plant Maintenance → Maintenance Processing → Completion Confirmation → Entry → Individual time confirmation
<b>Transaction Code</b>	IW41



**Enter PM Order Confirmation: Initial Screen**

Parameters

Confirmation No. of Operation

Confirmation

Order

Order

Activity

Suboperation

Long-term order for


Functional loc.

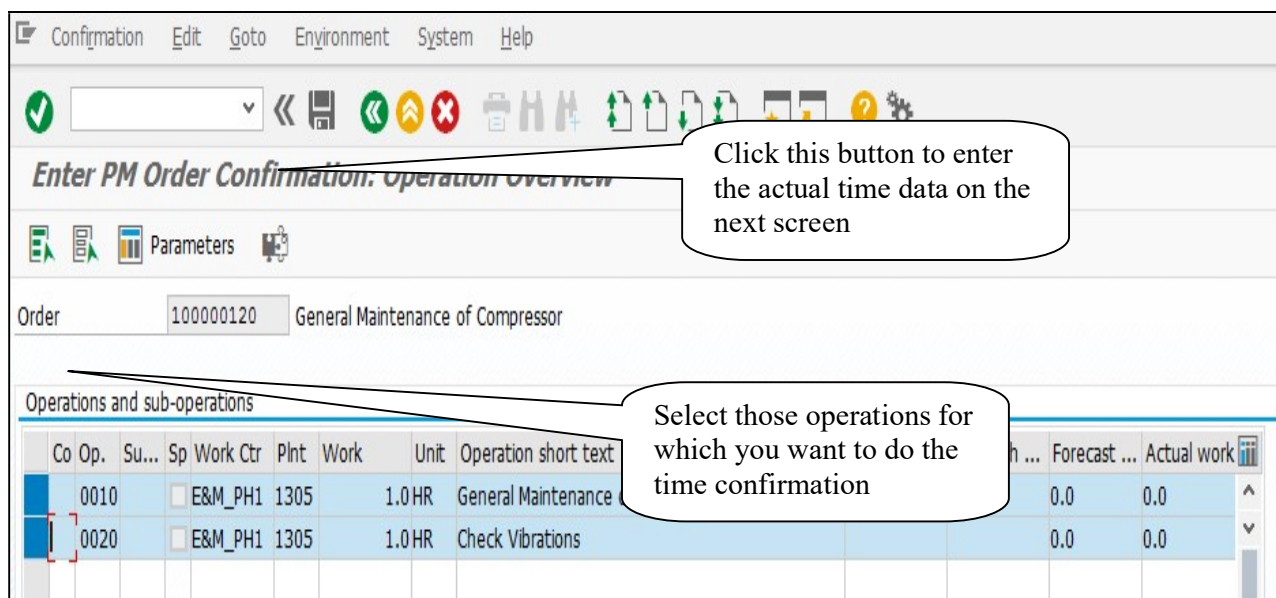
Equipment

Individual Capacity

Capacity cat.

Split number

On the initial screen, enter the order no. as shown above. Press “Enter” key or click on “Enter” icon . Enter PM Order Confirmation: Operation Overview screen will open.



**Enter PM Order Confirmation: Operation Overview**

Parameters

Order  General Maintenance of Compressor

Operations and sub-operations

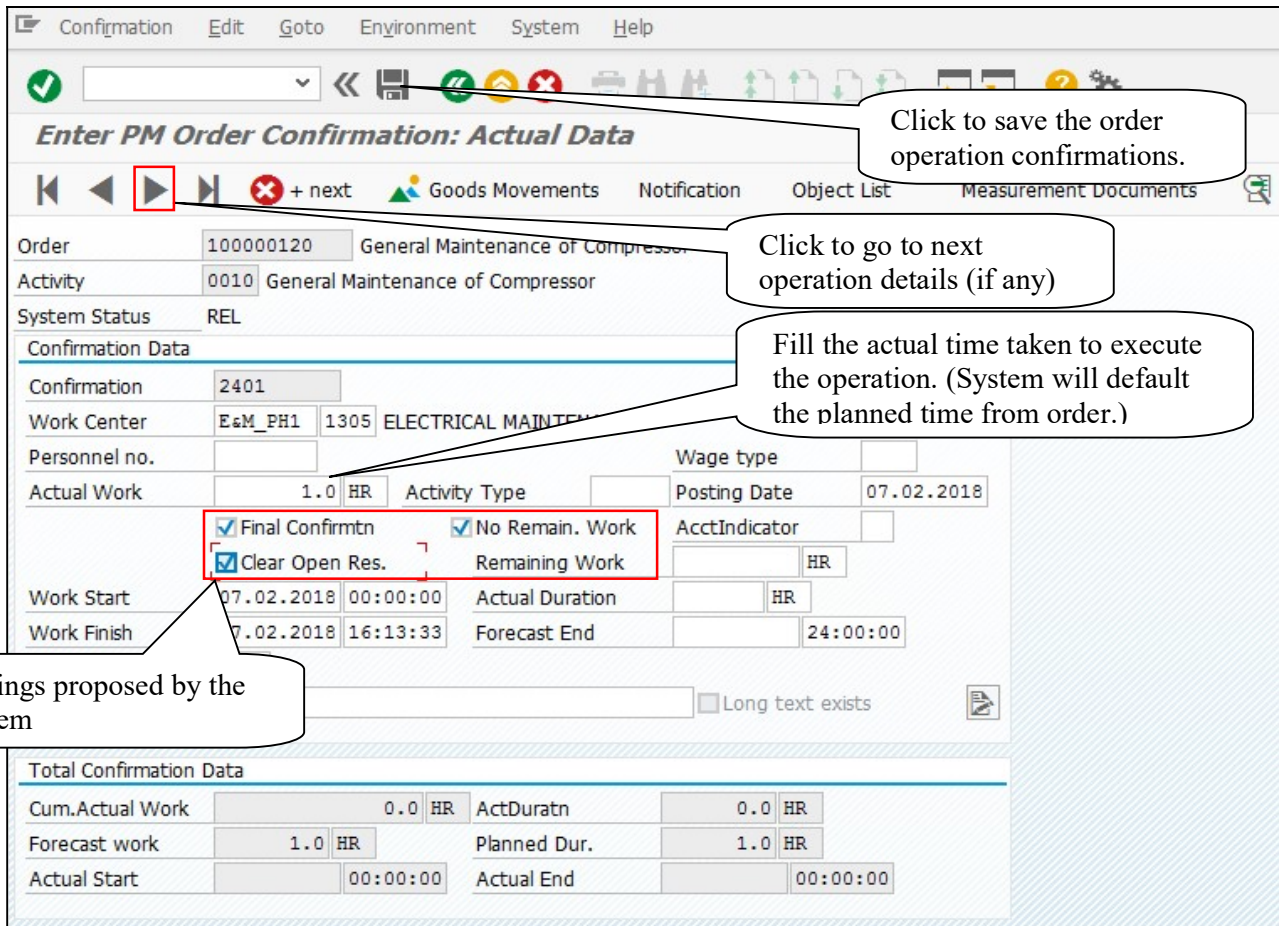
Co Op.	Su...	Sp	Work Ctr	Plnt	Work	Unit	Operation short text	Forecast	Actual work
0010	E&M_PH1	1305	1.0 HR	General Maintenance				0.0	0.0
0020	E&M_PH1	1305	1.0 HR	Check Vibrations				0.0	0.0



You can do the time confirmation only for internal operations (with Control key PM01) and not for external operations (with Control key PM03). Confirmation of operation for obtaining permit (with Control key WCM) is also not required.

PM- Master Data

For Internal Circulation Only



**Enter PM Order Confirmation: Actual Data**

Order: 100000120 General Maintenance of Compressor  
 Activity: 0010 General Maintenance of Compressor  
 System Status: REL

**Confirmation Data**


Confirmation: 2401  
 Work Center: E&M\_PH1 1305 ELECTRICAL MAINTENANCE  
 Personnel no.:  
 Actual Work: 1.0 HR Activity Type: Posting Date: 07.02.2018  
☒ Final Confirmtn ☒ No Remain. Work  
☒ Clear Open Res. Remaining Work  
 Work Start: 07.02.2018 00:00:00 Actual Duration: HR  
 Work Finish: 07.02.2018 16:13:33 Forecast End: 24:00:00  
☐ Long text exists


**Total Confirmation Data**

Cum.Actual Work	0.0 HR	ActDuratn	0.0 HR
Forecast work	1.0 HR	Planned Dur.	1.0 HR
Actual Start	00:00:00	Actual End	00:00:00

Callouts:

- Click to save the order operation confirmations. (Save button)
- Click to go to next operation details (if any) (Next button)
- Fill the actual time taken to execute the operation. (System will default the planned time from order.) (Actual Duration field)
- Settings proposed by the system (Checkboxes)

Click  button to go to the detail screen of next selected operation, if any. Enter the actual time details of next operation in the next screen. Repeat this until you reach the last operation.

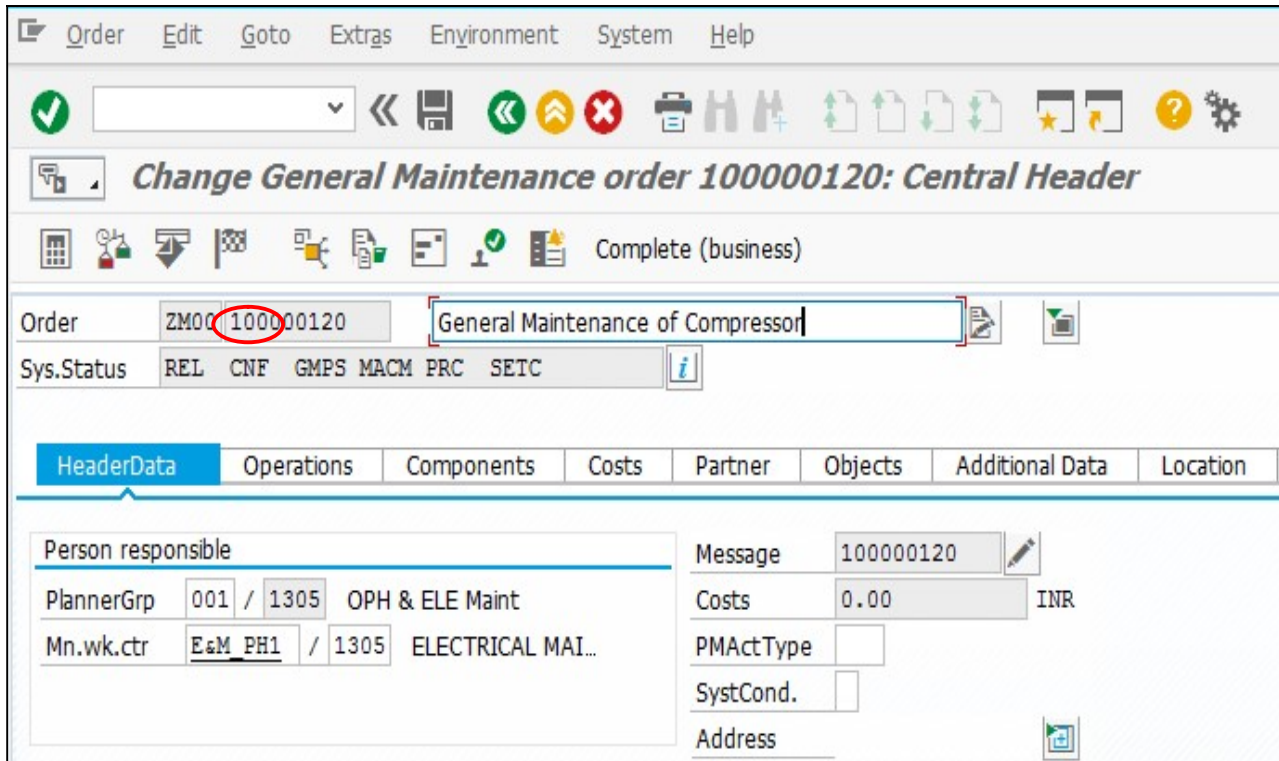
Click Save button  to save the confirmation. ✔ Number of confirmations saved for order 100000120: 2

System will give a message in the message bar that your confirmations saved as shown above. This says that operations have been confirmed for the order.



After all the confirmable operations of Order are confirmed, the order gets status CNF (confirmed) as shown below.





Order: ZM00 100000120

General Maintenance of Compressor

Sys.Status: REL CNF GMPS MACM PRC SETC

HeaderData | Operations | Components | Costs | Partner | Objects | Additional Data | Location

Person responsible

PlannerGrp: 001 / 1305 OPH & ELE Maint

Mn.wk.ctr: E&M\_PH1 / 1305 ELECTRICAL MAI...

Message: 100000120

Costs: 0.00 INR

PMActType:

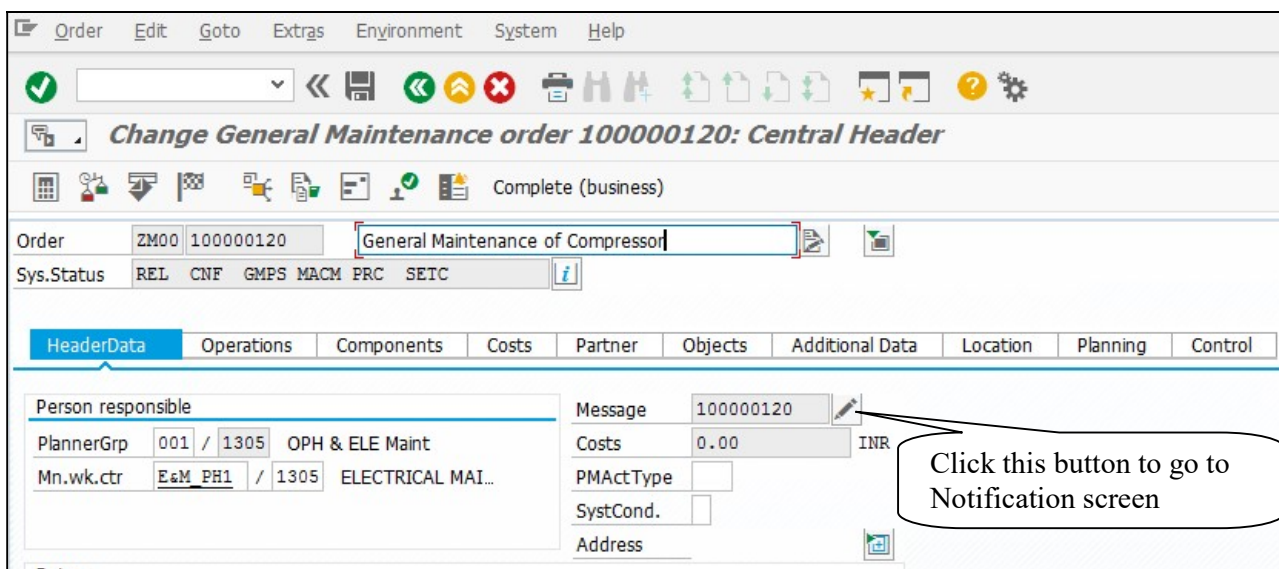
SystCond.:

Address:

### 3.10 NOTIFICATION: TECHNICAL COMPLETION – BY MAINTENANCE DEP'T

After all the work pertaining to the Maintenance order is completed, the technical findings, e.g. Damage (defect), Cause, Tasks and As-Found, need to be furnished in the Notification for technical history recording which can be analyzed later for any decision making about the equipment.

From Change Maintenance order header screen, navigate to Notification screen by clicking button besides the linked Notification no. as shown below.



Order: ZM00 100000120

General Maintenance of Compressor

Sys.Status: REL CNF GMPS MACM PRC SETC

HeaderData | Operations | Components | Costs | Partner | Objects | Additional Data | Location | Planning | Control

Person responsible

PlannerGrp: 001 / 1305 OPH & ELE Maint

Mn.wk.ctr: E&M\_PH1 / 1305 ELECTRICAL MAI...

Message: 100000120

Costs: 0.00 INR

PMActType:

SystCond.:

Address:

Click this button to go to Notification screen

On the Change Notification screen, go to Items tab to maintain the technical findings. Update the Object part and Damage in the Items page, if any, by selecting its code from the dropdown help.

Maintenance notification Edit Goto Extras Environment System Help

**Change PM Notification: General Maintenance**

Notification 100000120 Z0 General Maintenance of Compressor

Notific. Status NOPR ORAS OSTS

Order 100000120

Click this reference object tab

Notification Header **Reference Object** Location data Items Tasks Activities

Item			
Object part	PM1	1	Object part 1
Damage	PM1	1	Damage 1
Text			
Cause	PM1	1	Cause 1
Cause text			

Update by entering any new Object part, related Damage code & Cause code using selection dropdown help in the corresponding fields.

Entry 1 frm 1

Now go to Tasks tab

PM Notification Edit Goto Extras Environment System Help

**Change PM Notification: General Maintenance**

Notification: 100000120 Z0 General Maintenance of Compressor  
 Notific. Status: NOPR ORAS OSTS  
 Order: 100000120

Notification Header Reference Object Location data Items **Tasks** Activities

No.	Code gr...	Ta...	Task code text	Task text	T...	Task Status	User Status
1	PM1	1	Task 1			TSOS	

Click this task tab

Click to select the task

Click this button to complete the selected tasks

Entry 1 of 1



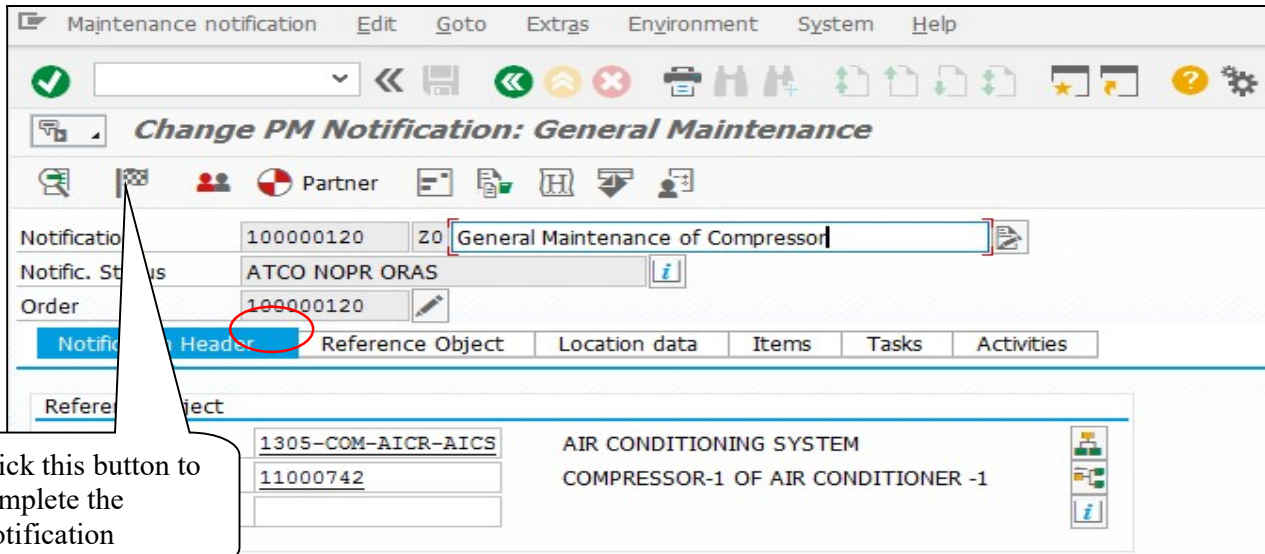
The Task status sets to TSCO (Task completed) and replaces previous status TSOS (Task Outstanding), when the Task is completed.



Until and unless all the entered Tasks in the notification have the status TSCO, system will not allow you to complete the notification. System will give a status check error at completion that Notification status OSTS (Outstanding tasks exist) is active, so before completing the notification always complete all the Tasks first.



Finally complete the notification by using the button in application toolbar at top of the screen.



Notification 100000120 20 General Maintenance of Compressor

Notific. Status ATCO NOPR ORAS

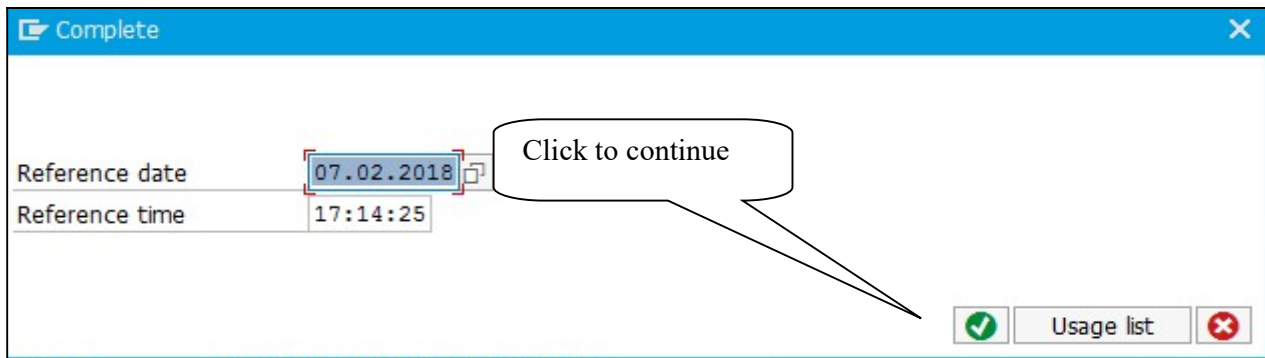
Order 100000120

Notification Header Reference Object Location data Items Tasks Activities

Reference Object

1305-COM-AICR-AICS	AIR CONDITIONING SYSTEM
11000742	COMPRESSOR-1 OF AIR CONDITIONER -1

After notification completion flag is clicked system asks the reference date and time, as shown below. If you want to change that time or date you can change it otherwise system will take today's date and time as default.




Complete

Reference date 07.02.2018

Reference time 17:14:25

Click to continue

Usage list

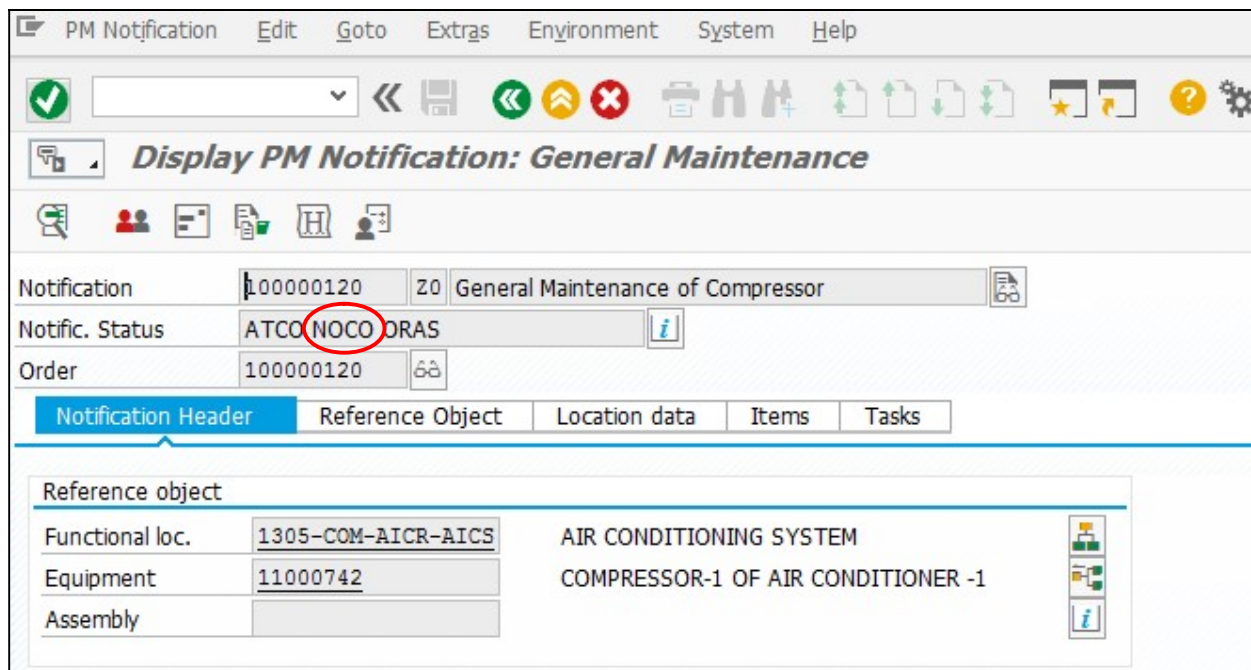
Click  button and Notification will be saved by the system with message:

 Order 100000120 saved with notification 100000120



After completion, the Notification gets status NOCO (Notification completed) by replacing previous status NOPR (Notification in process) as shown below. The Notification and all its field becomes grey (display mode) and cannot be edited since after Notification completion, no changes are allowed in the notification.





PM Notification Edit Goto Extras Environment System Help

Display PM Notification: General Maintenance

Notification 100000120 Z0 General Maintenance of Compressor

Notific. Status ATCO NOCO DRAS

Order 100000120

Notification Header Reference Object Location data Items Tasks

Reference object

Functional loc. 1305-COM-AICR-AICS AIR CONDITIONING SYSTEM

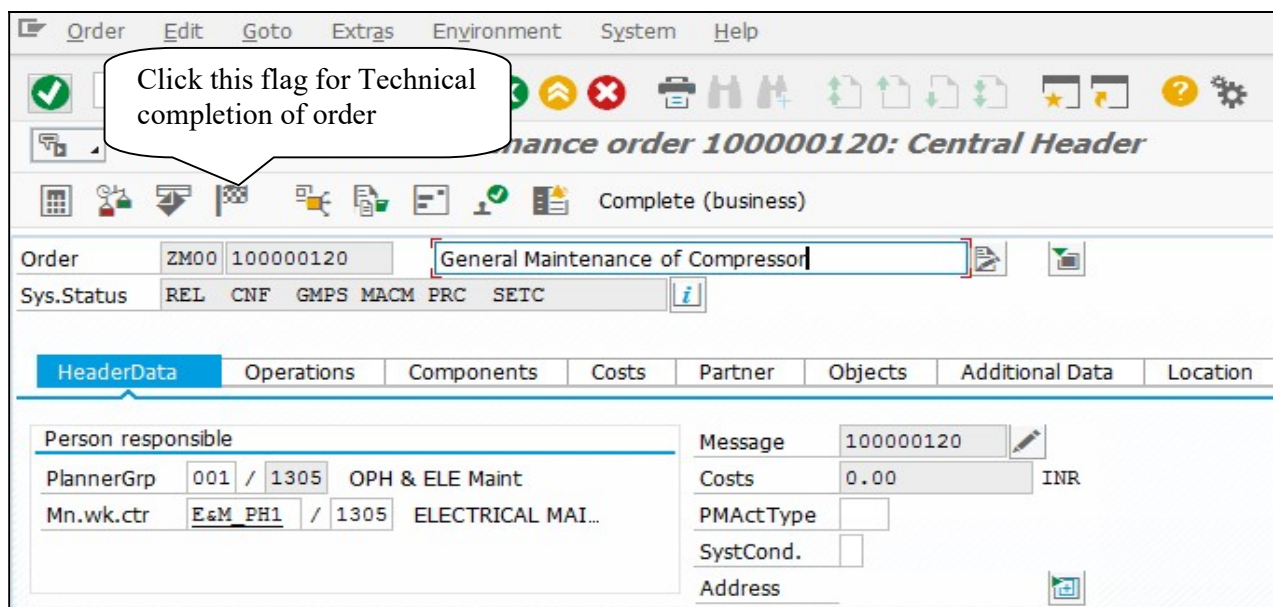
Equipment 11000742 COMPRESSOR-1 OF AIR CONDITIONER -1

Assembly

### 3.11 MAINTENANCE ORDER: TECHNICAL COMPLETION – BY MAINT. DEP'T

After maintaining the technical findings in notification for history and completing the Notification, Maintenance Dep't will technically complete the order.

For technical completion, open the order in change mode as described above



Order Edit Goto Extras Environment System Help

Maintenance order 100000120: Central Header

Order ZM00 100000120 General Maintenance of Compressor

Sys.Status REL CNF GMPS MACM PRC SETC

HeaderData Operations Components Costs Partner Objects Additional Data Location

Person responsible

PlannerGrp 001 / 1305 OPH & ELE Maint

Mn.wk.ctr E&M\_PH1 / 1305 ELECTRICAL MAI...

Message 100000120

Costs 0.00 INR

PMActType

SystCond.

Address

After order completion flag is clicked system gives a pop-up screen asking the reference date and time, as shown below. If you want to change that time or date you can change it otherwise system will take today's date and time as default.



Complete

Reference date

07.02.2018

Reference time

17:39:26

☒ Complete notifctns

Notification

Malfnctn data

Damage

Notif. dates

Malf.start

07.02.2018

13:51:14

MalfEnd

00:00:00

Breakdown dur.

0.00

H

Click to continue

☒ Usage list ☐

Click ☒ button and Order will be saved by the system with message:

☒ Order 100000120 saved with notification 100000120



Order will get new status TECO (Technically completed) by replacing previous status REL (Released) as shown below. This means that order is technically complete now. The Order and all its field becomes grey (display mode) and cannot be edited since after Order completion, no changes are allowed in the order except actual cost updating by other processes e.g. vendor payment for external services consumed, by Finance and Order closing (business completion).

Order Edit Goto Extras Environment System Help

☒

Change General Maintenance order 100000120: Central Header

Complete (business)

Order

PM00 100000120

General Maintenance of Compressor

Sys.Status

TECO CNF GMPS MACM PRC SETC

HeaderData

Operations

Components

Costs

Partner

Objects

Additional Data

Location

Person responsible

PlannerGrp

001 / 1305

OPH & ELE Maint

Mn.wk.ctr

E&M\_PH1 / 1305

ELECTRICAL MAI...

Message

100000120

Costs

0.00

INR

PMActType

SystCond.

Address

Now the order is technically complete in all respects from maintenance side.

PM- Master Data

For Internal Circulation Only

### **3.12 COST SETTLEMENT OF THE ORDER – BY FINANCE DEP'T (AT MONTH END)**

- The actual cost of resources consumption (materials and external services) for Maintenance order is loaded on order itself as and when resources are consumed during order processing cycle.
- At the month end finance dep't settles the actual cost of all the maintenance orders which are technically completed to the respective cost centres.
- After the settlement, the actual cost of the order is transferred to the cost centre, and actual cost of the order will become zero.
- After this activity of order cost settlement, the order is Business completed and gets the status CLSD (closed).

#### 4 GLOSSARY

Company code	SAP term for legal entity for which a complete self-contained set of accounts can be drawn up for external statutory reporting
Plant	In Logistics, a plant is an organizational unit for dividing an enterprise according to production, procurement, maintenance, and materials planning. A place where materials are produced, or goods and services are provided.
Maintenance Plant	Maintenance plant is a plant in which the technical objects of the company are installed and where maintenance is done.
Maint. Planning Plant	A plant in which maintenance tasks are planned and prepared. The planning responsibility for a maintenance plant is defined using a planning plant. Maintenance plant are assigned to planning plants. Planning is performed for the Maintenance plants in the planning plants.
Plant Section	Plant section is subdivision of Maintenance Plant into different process / functional areas.
Planner Group	Planner Group is a group of persons responsible for maintenance planning in a Planning plant.
Functional Location	The business object functional location is an organizational unit within Logistics, that structures the maintenance objects of a company according to functional, process-related or spatial criteria. A functional location represents the place at which a maintenance task is to be performed.
Equipment	An equipment is known as an individual object in the system that is maintained independently. Equipment can be installed at different functional locations. You can create an individual equipment in an organization based on the object-based structure of a technical system.
Work Center	An organizational unit that defines where and when an operation must be performed. The work center has an available capacity. The activities performed at or by the work center are evaluated by charge rates, which are determined by cost centers and activity types. Work centers can be: - Machines - People - Production lines
Task List	It's the set of operations to be performed for the maintenance of a technical object
Object Type	You can assign each piece of equipment and each functional location to a technical object type. This allows pieces of equipment that have the same use, for example, to be combined into groups. You can use this grouping for evaluating your master data or maintenance data.
Catalog Profile	Catalog profile will group distinct characteristics of the notification which will cater the needs of management to analyze the company assets & to ascertain the decisions accordingly. Catalog profiles have sub class of code groups which will group the codes as per their feature.

## 5 APPENDIX

### 5.1 T - CODES FOR REOPRTS

T-Code	Description
IW38	PM Order List Change
IW39	PM Order List Display
IW47	Display PM Order Confirmation using Operation List
IW28	PM Notification List Change
IW29	PM Notification List Display
MM60	Materials List
MMBE	Display Material Stock Overview

## 5.2 T - CODES FOR PM

T-Code	Description
IW21	Create PM Notification
IW22	Change PM Notification
IW23	Display PM Notification
IW31	Create PM Order
IW32	Change PM Order
IW33	Display PM Order
IW34	Create Notification Order
IW41	PM Order Confirmation
IW42	Overall Completion Confirmation
IW43	Display PM Order Confirmation
IW45	Cancel PM Order Confirmation