

## **PLANT MAINTENANCE MODULE (PM)**

### **Completion Confirmation**

#### **and**

### **Technical Completion Of Maintenance Order**

After completion of execution of work against a maintenance order, the details of work performed should be reported through a separate transaction, before closing the maintenance order. However the details of readings of various parameters taken during performance of tests if any carried out during execution of work, are recorded in the maintenance order only.

#### **Completion confirmation:**

The '**Completion Confirmation**' of Maintenance Order is done for reporting various **operations** performed against the order. The details of '**time spent**' and the **actual work** carried out against each operation etc can be entered in the 'Confirmation document', after completion of various operations of the maintenance order.

There is a flag for "**Final confirmation**" to indicate that there is no work remaining against the operation. Until all the operations/activities of the maintenance order are finally confirmed, the order would be either in released/partially confirmed system status i.e '**REL**'/'**PCNF**'. When all the operations of an order are 'finally' confirmed, the order would have the system status '**CNF**'.

#### **Technical Completion (TECO):**

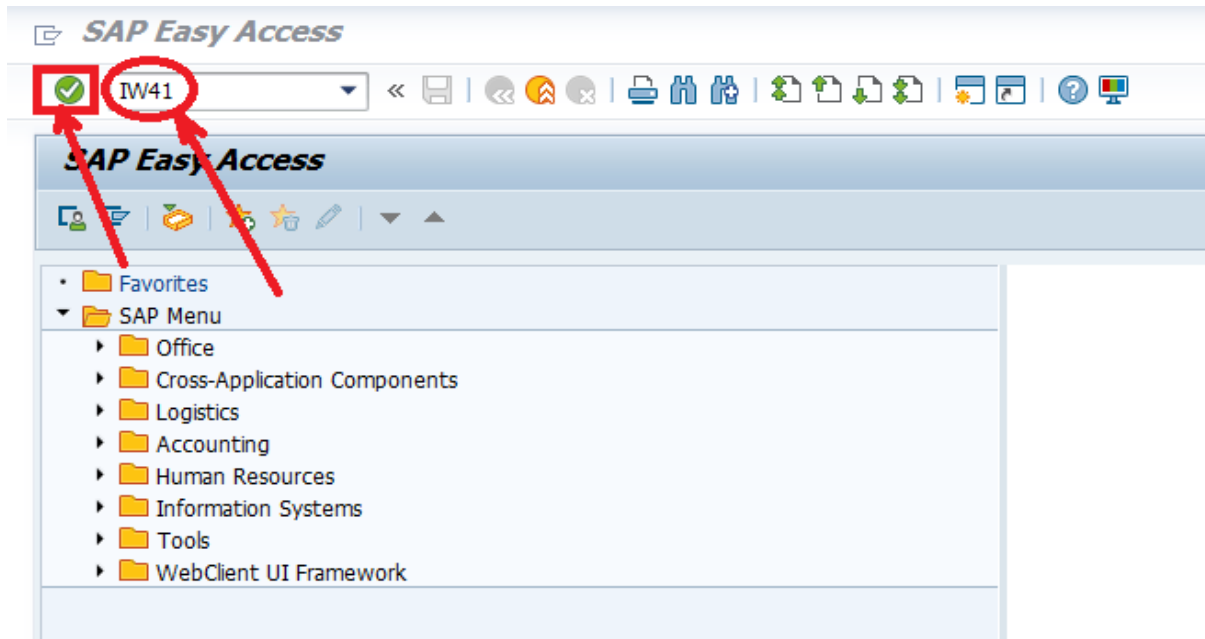
The '**Technical Completion**' of a maintenance order which is denoted as '**TECO**' is a handing over of the work from the maintenance wing to finance wing for further processing. When all the operations of maintenance order are "Finally Confirmed", the order should be technically completed.

The Technical Completion is a standard system status, valid only at the **order header** level. After TECO of the order, any material allotments against the order for which material is not withdrawn from the stores will be cancelled automatically. Similarly all existing PRs, for which POs are not created are flagged for deletion.

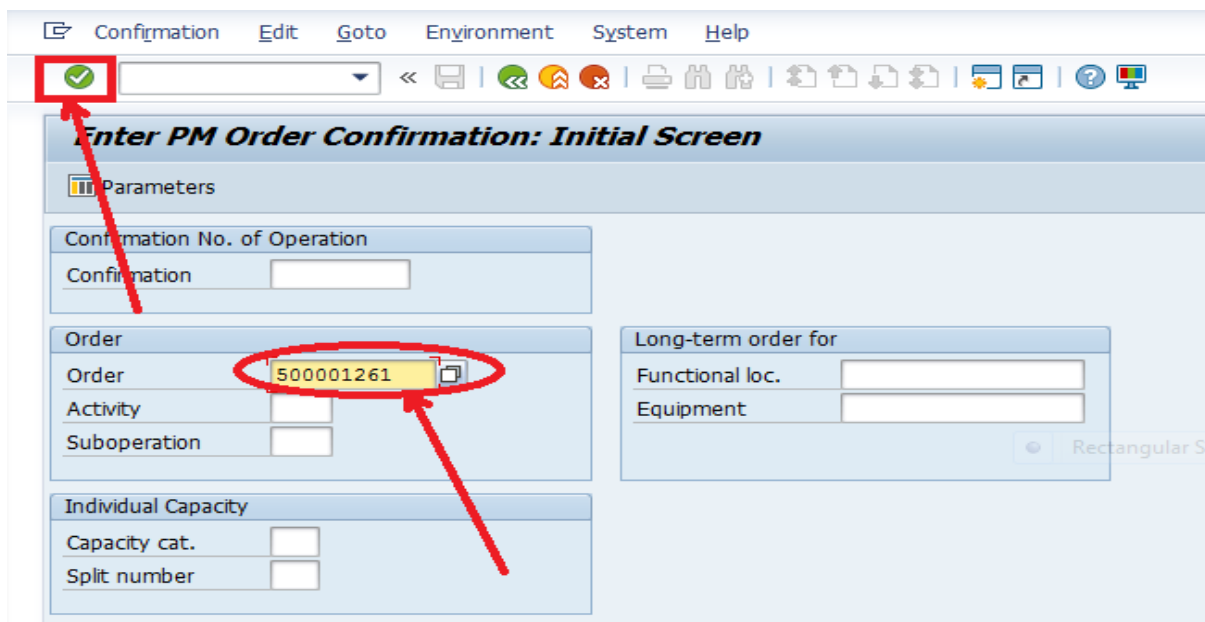
In this document the process of performing **completion confirmation**, **cancellation of completion confirmation** and **technical completion** of maintenance order is illustrated with relevant screen shots.


### **Process of performing 'completion confirmation':**

**Step-1:** Enter the T-code **IW41** in the command field and click the **enter** button as indicated below.



**Step-2:** Enter the maintenance order number of the order to be confirmed, by selecting the same from search button and click **enter** button as shown below.



**Step-3:** The various operations in the **operations** tab of the selected maintenance order would be displayed as shown below. Select the operation to be confirmed and click  button as indicated below.

Confirmation Edit Goto Environment System Help

Enter PM Order Confirmation: Operation Overview

Parameters

Order: 500001261 Tadikonda-VTPS 220KV FB-01

Co	Op.	Su...	Sp	Work Ctr	Plnt	Work	Unit	Operation short text	Actual start	Act.finish ...	Forecast ...	Actual work
0010		<input type="checkbox"/>	MNT	5117	0.0	Measurement of Tan Delta and capacitance				0.0	0.000	
0020		<input type="checkbox"/>	MNT	5117	0.0	Checking of bellow expansion				0.0	0.000	
0030		<input type="checkbox"/>	MNT	5117	0.0	Insulation IR Test for Current Transfmr				0.0	0.000	
0040		<input type="checkbox"/>	MNT	5117	0.0	Check MB clean&tighntn of Secndry terminal				0.0	0.000	
0050		<input type="checkbox"/>	MNT	5117	0.0	N2 pressure checking				0.0	0.000	
0060		<input type="checkbox"/>	MNT	5117	0.0	Checking of oil leakage				0.0	0.000	
0070		<input type="checkbox"/>	MNT	5117	0.0	Check oil leakage in terminal box Secndry				0.0	0.000	
0080		<input type="checkbox"/>	MNT	5117	0.0	Primary injection Test Current Tranformr				0.0	0.000	
0090		<input type="checkbox"/>	MNT	5117	0.0	Measurement of Tan Delta and capacitance				0.0	0.000	
0100		<input type="checkbox"/>	MNT	5117	0.0	Checking of bellow expansion				0.0	0.000	
0110		<input type="checkbox"/>	MNT	5117	0.0	Insulation IR Test for Current Transfmr				0.0	0.000	
0120		<input type="checkbox"/>	MNT	5117	0.0	Check MB clean&tighntn of Secndry terminal				0.0	0.000	
0130		<input type="checkbox"/>	MNT	5117	0.0	N2 pressure checking				0.0	0.000	
0140		<input type="checkbox"/>	MNT	5117	0.0	Checking of oil leakage				0.0	0.000	
0150		<input type="checkbox"/>	MNT	5117	0.0	Check oil leakage in terminal box Secndry				0.0	0.000	
0160		<input type="checkbox"/>	MNT	5117	0.0	Primary injection Test Current Tranformr				0.0	0.000	
0170		<input type="checkbox"/>	MNT	5117	0.0	Measurement of Tan Delta and capacitance				0.0	0.000	
0180		<input type="checkbox"/>	MNT	5117	0.0	Checking of bellow expansion				0.0	0.000	

**Step-4:**The '**Actual data**' screen would be opened for the selected operation/activity as shown below.

Three check boxes namely '**Final Confirmation**', '**No Remain. Work**' and '**Clear Open Res**' should be checked as shown below.

The starting time and finishing time of the operation should be entered as indicated below.

In the confirmation text field, any remarks/observations regarding the operation can be entered within 40 characters as shown below. In case the free text exceeds 40 characters, the same can be entered by clicking the long text button. In case long text is entered, the check bow '**Long Text Exists**' would be automatically checked as indicated below.

After entering the above details click **enter** button as shown below.

**Enter PM Order Confirmation: Actual Data**

Order: 500001261 Tadikonda-VTPS 220KV FB-01

Activity: 0010 Measurement of Tan Delta and capacitance

System Status: REL

Confirmation Data

Confirmation: 4317 I20

Work Center: MNT 5117 MAINTENANCE

Personnel no.:

Actual Work: Activity Type: Posting Date: 26.12.2018

Wage type:

AcctIndicator:

☒ Final Confirmtn
 ☒ No Remain. Work

☒ Clear Open Res.
 Remaining Work:

Work Start: 26.12.2018 09:00:00 Actual Duration:

Work Finish: 26.12.2018 11:00:00 Forecast End: 24:00:00

Reason:

Confirm. text: The Tan Delta Test has been conducted. ☒ Long text exists

Total Confirmation Data

Cum.Actual Work: 0.000 ActDuratn: 0.0

Forecast work: 0.0 Planned Dur.: 0.0

Actual Start: 00:00:00 Actual End: 00:00:00

**Step-5:** For entering completion confirmations in respect of the other operations, click **back** button as shown below to go back to the **operation over view** screen and repeat the steps mentioned above.

**Enter PM Order Confirmation: Actual Data**

Order: 500001261 Tadikonda-VTPS 220KV FB-01

Activity: 0010 Measurement of Tan Delta and capacitance

System Status: REL

Confirmation Data

Confirmation: 4317 I20

Work Center: MNT 5117 MAINTENANCE

Personnel no.:

Actual Work: Activity Type: Posting Date: 26.12.2018

Wage type:

AcctIndicator:

☒ Final Confirmtn
 ☒ No Remain. Work

☒ Clear Open Res.
 Remaining Work:

Work Start: 26.12.2018 09:00:00 Actual Duration:

Work Finish: 26.12.2018 11:00:00 Forecast End: 24:00:00

Reason:

Confirm. text: The Tan Delta Test has been conducted. ☒ Long text exists

Total Confirmation Data

Cum.Actual Work: 0.000 ActDuratn: 0.0

Forecast work: 0.0 Planned Dur.: 0.0

Actual Start: 00:00:00 Actual End: 00:00:00

It may be noted that since confirmation has been completed for the **operation no: 010**, it would not appear in the operation overview screen any more as indicated below.

**Enter PM Order Confirmation: Operation Overview**

Order: 500001261 Tadikonda-VTPS 220KV FB-01

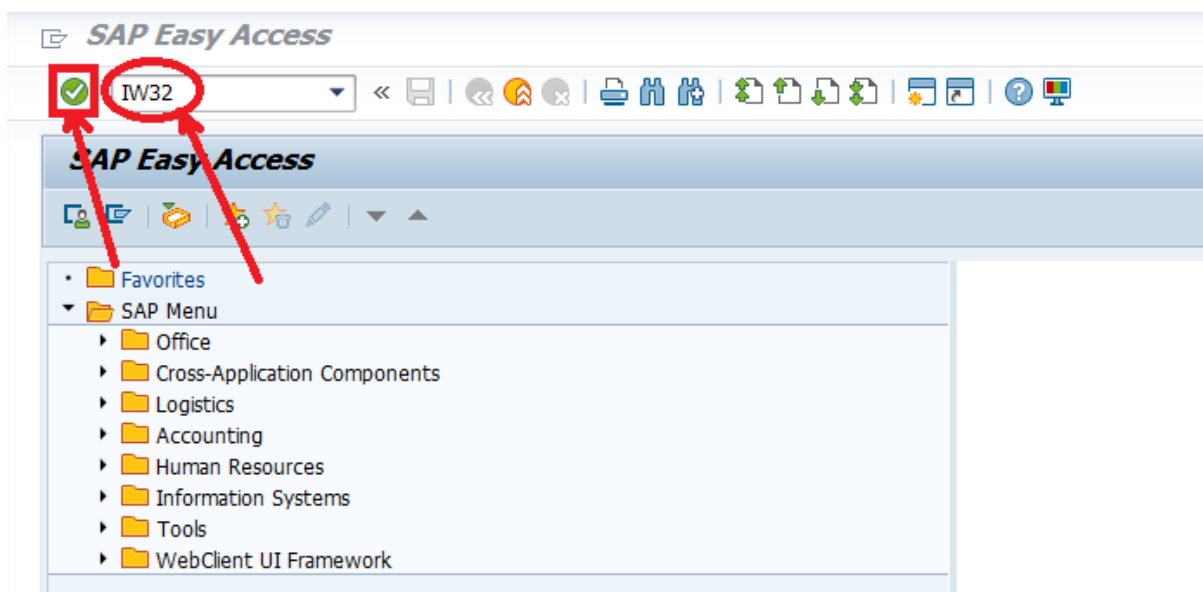
Operations and sub-operations

Co	Op.	Su...	Sp	Work Ctr	Plnt	Work	Unit	Operation short text	Actual start	Act.finish ...	Forecast ...	Actual work
	0020		<input type="checkbox"/>	MNT	5117	0.0		Checking of bellow expansion			0.0	0.000
	0030		<input type="checkbox"/>	MNT	5117	0.0		Insulation IR Test for Current Transfmr			0.0	0.000
	0040		<input type="checkbox"/>	MNT	5117	0.0		Check MB clean&tightn of Secndry terminal			0.0	0.000
	0050		<input type="checkbox"/>	MNT	5117	0.0		N2 pressure checking			0.0	0.000
	0060		<input type="checkbox"/>	MNT	5117	0.0		Checking of oil leakage			0.0	0.000
	0070		<input type="checkbox"/>	MNT	5117	0.0		Check oil leakage in terminal box Secndry			0.0	0.000
	0080		<input type="checkbox"/>	MNT	5117	0.0		Primary injection Test Current Transfmr			0.0	0.000
	0090		<input type="checkbox"/>	MNT	5117	0.0		Measurement of Tan Delta and capacitance			0.0	0.000
	0100		<input type="checkbox"/>	MNT	5117	0.0		Checking of bellow expansion			0.0	0.000
	0110		<input type="checkbox"/>	MNT	5117	0.0		Insulation IR Test for Current Transfmr			0.0	0.000
	0120		<input type="checkbox"/>	MNT	5117	0.0		Check MB clean&tightn of Secndry terminal			0.0	0.000
	0130		<input type="checkbox"/>	MNT	5117	0.0		N2 pressure checking			0.0	0.000
	0140		<input type="checkbox"/>	MNT	5117	0.0		Checking of oil leakage			0.0	0.000
	0150		<input type="checkbox"/>	MNT	5117	0.0		Check oil leakage in terminal box Secndry			0.0	0.000
	0160		<input type="checkbox"/>	MNT	5117	0.0		Primary injection Test Current Transfmr			0.0	0.000
	0170		<input type="checkbox"/>	MNT	5117	0.0		Measurement of Tan Delta and capacitance			0.0	0.000
	0180		<input type="checkbox"/>	MNT	5117	0.0		Checking of bellow expansion			0.0	0.000
	0190		<input type="checkbox"/>	MNT	5117	0.0		Insulation IR Test for Current Transfmr			0.0	0.000

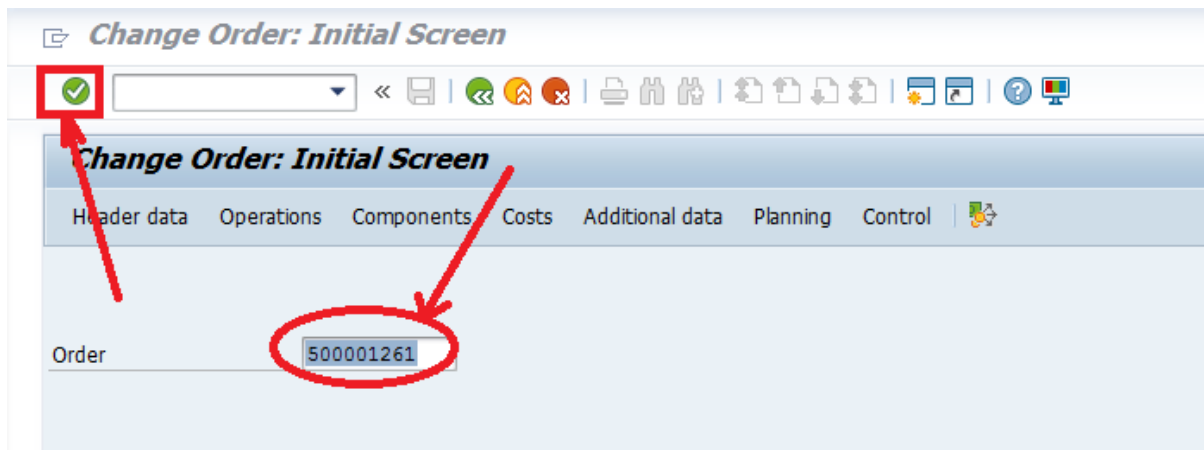
### **Viewing completion confirmation against an operation:**

After performing **completion confirmation** against an operation, the details of the same can be viewed in the maintenance order as illustrated below.

**Step-1:** Enter T-code **IW32** in the command field and click **enter** button as shown below.



**Step-2:** Enter the **maintenance order** number and click **enter** button as indicated below.

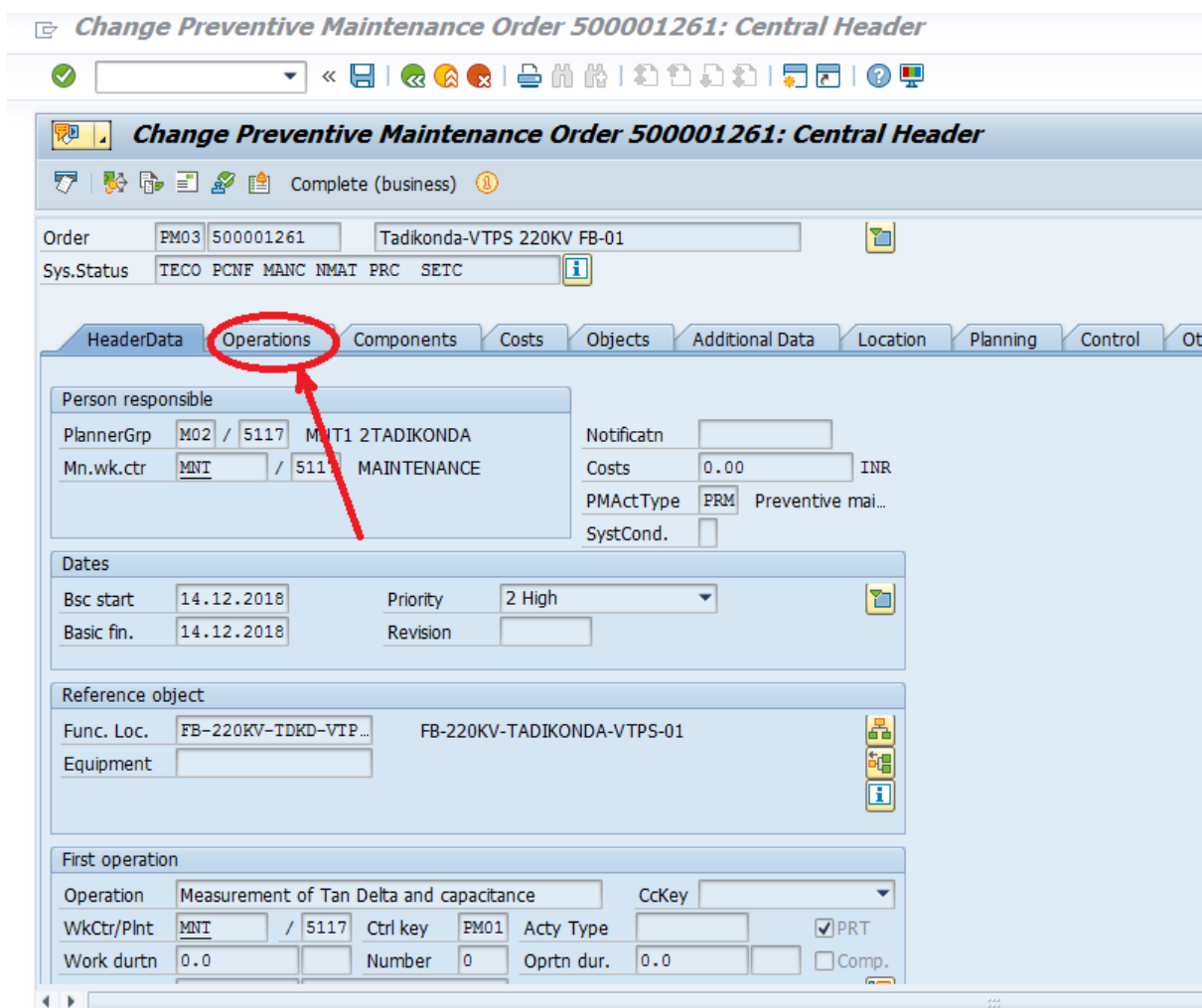


**Change Order: Initial Screen**

Header data   Operations   Components   Costs   Additional data   Planning   Control

Order: 500001261

**Step-3:** Click **operations** tab as shown below.



**Change Preventive Maintenance Order 500001261: Central Header**

Complete (business)

Order: PM03 500001261   Tadikonda-VTPS 220KV FB-01

Sys.Status: TECO PCNF MANC NMAT PRC SEIC

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

**Person responsible**

PlannerGrp: M02 / 5117   MNT1 2TADIKONDA

Mn.wk.ctr: MNT / 5117   MAINTENANCE

Notificatn:   Costs: 0.00 INR

PMActType: PRM   Preventive mai...

SystCond.:  

**Dates**

Bsc start: 14.12.2018   Priority: 2 High

Basic fin.: 14.12.2018   Revision:  

**Reference object**

Func. Loc.: FB-220KV-TDKD-VTP...   FB-220KV-TADIKONDA-VTPS-01

Equipment:  

**First operation**

Operation: Measurement of Tan Delta and capacitance   Cckey:  

WkCtr/Plnt: MNT / 5117   Ctrl key: PM01   Acty Type:  

Work durtn: 0.0   Number: 0   Oprtn dur.: 0.0  

☒ PRT   ☐ Comp.


**Step-4:** Select the operation for which completion confirmation is to be viewed and click **Act.Data** tab at the bottom of the screen as indicated below.

Order PM03 500001261 Tadikonda-VTPS 220KV FB-01  
 Sys.Status TECO PCNF MANC NMAT PRC SETC

HeaderData Operations Components Costs Objects Additional Data Location Planning Control Other Details

Act	SOp	Work ctr	Plant	Co...	StTextK	S...	Operation short text	LT	VI	S...	Actual work
0010	MNT		5117	PM01			Measurement of Tan Delta and capacitance				0.0
0020	MNT		5117	PM01			Checking of bellow expansion				0.0
0030	MNT		5117	PM01			Insulation IR Test for Current Transfrmr				0.0
0040	MNT		5117	PM01			Check MB clean&tightn of Secndry terminal				0.0
0050	MNT		5117	PM01			N2 pressure checking				0.0
0060	MNT		5117	PM01			Checking of oil leakage				0.0
0070	MNT		5117	PM01			Check oil leakage in termnal box Secndry				0.0
0080	MNT		5117	PM01			Primary injection Test Current Tranformr				0.0
0090	MNT		5117	PM01			Measurement of Tan Delta and capacitance				0.0
0100	MNT		5117	PM01			Checking of bellow expansion				0.0
0110	MNT		5117	PM01			Insulation IR Test for Current Transfrmr				0.0
0120	MNT		5117	PM01			Check MB clean&tightn of Secndry terminal				0.0
0130	MNT		5117	PM01			N2 pressure checking				0.0
0140	MNT		5117	PM01			Checking of oil leakage				0.0

General Internal External Dates Act. Data Enhancement Catalog

**Step-5:** Click on the  symbol as indicated below to navigate to the completion confirmation screen.

Change Preventive Maintenance Order 500001261: General Operation Data

Order 500001261 Activity 0030 / Ctrl key PM01  
 StdTextKey/ShrtText Insulation IR Test for Current Transfrmr

General Internal External Dates Act. Data Enhancement

Completion confirmation  
 Confirmation 4319  
☒ No Remaining Work

Actual work 0.000  
 Forecast work 0.0

Purchasing  
 Requisition 0  
 Res./Purc. req. 3 Immediately  
 GR Qty 0.000  
☐ Purch. Order Exists

Components Relationships

Itm	Component	Description	LT	Reqmt Qty	U..	IC	S..	SLoc	Plnt	Batch	Proc. Categ

Gen. Data Purch. Material Where-Used Repl. Catalog

**Step-6:** It may be noted that the completion confirmation entered for the activity is updated under **Total confirmation data** as indicated below.

**Display PM Order Confirmation: Actual Data**

Notification Object List Measurement Documents Administr.

Order 500001261 Tadikonda-VTPS 220KV FB-01  
 Activity 0030 Insulation IR Test for Current Transfmr  
 System Status CNF ORSP TECO

**Confirmation Data**

Confirmation 4319 / 1 I40  
 Work Center MNT 5117 MAINTENANCE  
 Personnel no. 0  
 Actual Work 0.00 Activity Type Wage type Posting Date 31.12.2018  
☒ Final Confirmtn ☒ No Remain. Work  
☒ Clear Open Res. Remaining Work 0.00  
 Work Start 26.12.2018 09:00:00 Actual Duration 0.0  
 Work Finish 27.12.2018 12:00:00 Forecast End 24:00:00  
 Reason  
 Confirm. text The IR Test has been completed. ☒ Long text exists

**Total Confirmation Data**

Cum.Actual Work 0.000 ActDuratn 0.0  
 Forecast work 0.0 Planned Dur. 0.0  
 Actual Start 26.12.2018 09:00:00 Actual End 27.12.2018 12:00:00

### **Cancellation of completion confirmation against an operation:**

In case completion confirmation against an operation is erroneously entered and requires to be modified, the original completion confirmation needs to be cancelled.

**Step-1:** Enter T-code **IW45** and click **enter** button as shown below.

**SAP Easy Access**

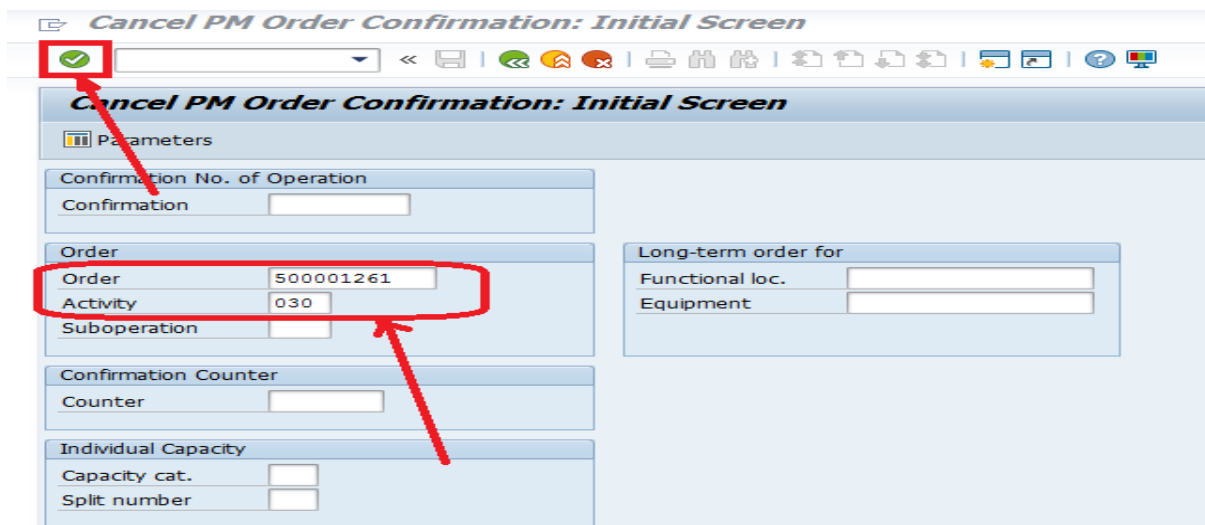
☒ IW45

**SAP Easy Access**

- Favorites
- SAP Menu
  - Office
  - Cross-Application Components
  - Logistics
  - Accounting
  - Human Resources
  - Information Systems
  - Tools
  - WebClient UI Framework



**Step-2:** Enter maintenance **order number** and **activity number** for which completion confirmation is to be cancelled and click **enter** button as indicated below.



**Cancel PM Order Confirmation: Initial Screen**

Parameters

Confirmation No. of Operation  
Confirmation

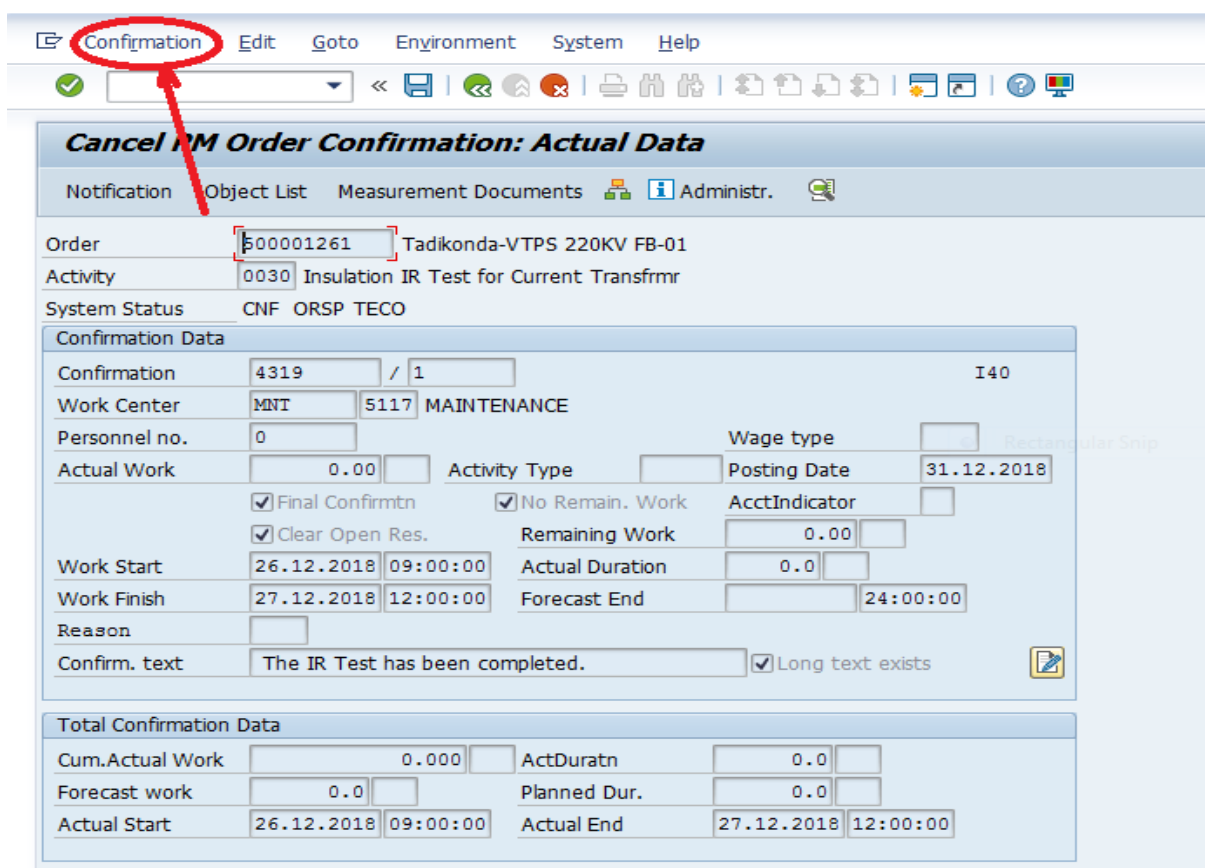
Order  
Order 500001261  
Activity 030  
Suboperation

Long-term order for  
Functional loc.  
Equipment

Confirmation Counter  
Counter

Individual Capacity  
Capacity cat.  
Split number

**Step-3:** Click **confirmation** button as shown below and click **save** sub option in it.



**Cancel PM Order Confirmation: Actual Data**

Notification Object List Measurement Documents Administr.

Order 500001261 Tadikonda-VTPS 220KV FB-01  
Activity 0030 Insulation IR Test for Current Transfmr  
System Status CNF ORSP TECO

Confirmation Data

Confirmation 4319 / 1 I40  
Work Center MNT 5117 MAINTENANCE  
Personnel no. 0  
Actual Work 0.00 Activity Type Posting Date 31.12.2018  
☒ Final Confirmtn ☒ No Remain. Work AcctIndicator  
☒ Clear Open Res. Remaining Work 0.00  
 Work Start 26.12.2018 09:00:00 Actual Duration 0.0  
 Work Finish 27.12.2018 12:00:00 Forecast End 24:00:00  
 Reason  
 Confirm. text The IR Test has been completed. ☒ Long text exists

Total Confirmation Data

Cum.Actual Work 0.000 ActDuratn 0.0  
Forecast work 0.0 Planned Dur. 0.0  
Actual Start 26.12.2018 09:00:00 Actual End 27.12.2018 12:00:00

**Step-4:** In the pop up window displayed, click **Allow** button as shown below.

**Cancel PM Order Confirmation: Actual Data**

Notification Object List Measurement Documents Administr.

Order 500001261 Tadikonda-VTPS 220KV FB-01  
 Activity 0030 Insulation IR Test for Current Transfmr  
 System Status PCNF TECO

**Confirmation Data**

Confirmation 4319 / 3  
 Work Center MNT 5117 MAINTENANCE  
 Personnel no. 0  
 Actual Work 0.00 Activity Type  
☐ Final Confirmtn ☐ No Remain. Work  
☐ Clear Open Res. Remaining Work  
 Work Start 26.12.2018 09:00:00 Actual Duration  
 Work Finish 27.12.2018 12:00:00 Forecast End  
 Reason  
 Confirm. text

**Total Confirmation Data**

Cum.Actual Work 0.000 ActDuratn 0.0  
 Forecast work 0.0 Planned Dur. 0.0  
 Actual Start 26.12.2018 09:00:00 Actual End 27.12.2018 12:00:00

**SAP GUI Security**

The system is trying to replace the file  
 c:\Users\dell\AppData\Roaming\microsoft\templates\SAPscriptWord2007.dotm  
 Do you want to allow this?  
☐ Remember My Decision  
 Allow Deny Help

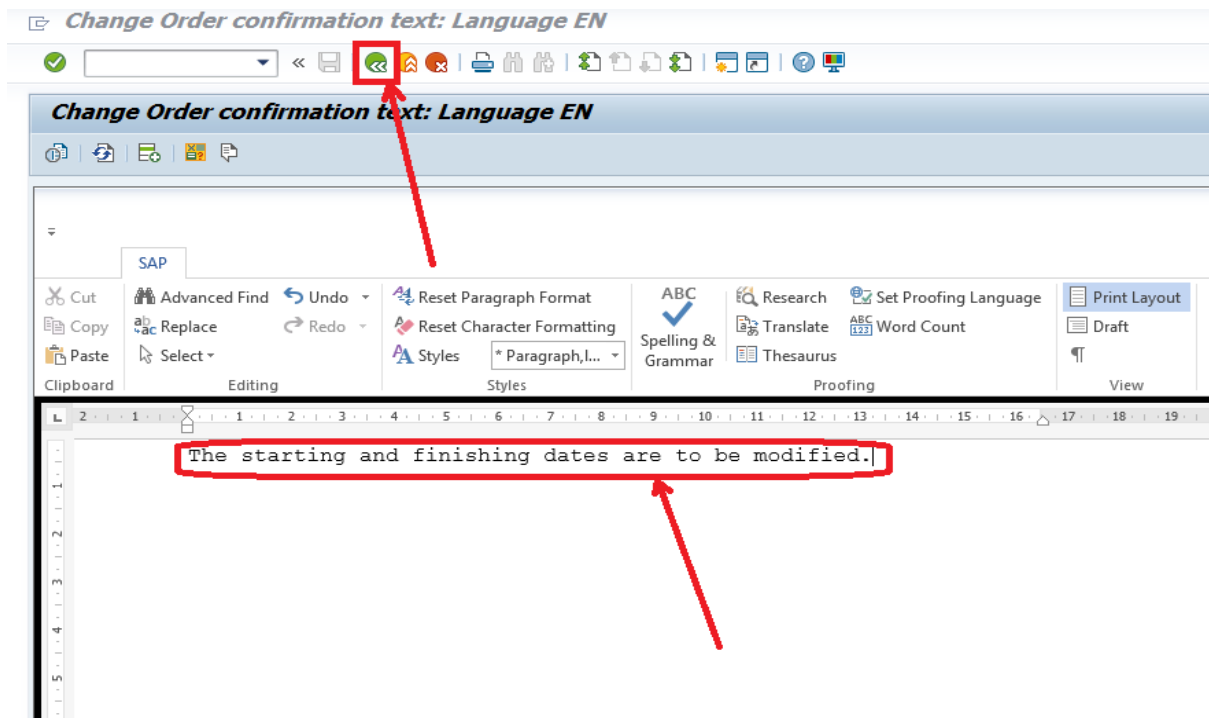
**Step-5:** A screen for entering **free text** indicating the reason for cancellation of completion confirmation would be displayed as shown below. Here enter the free text and enter **back** button as shown below in the second screen shot.

**Change Order confirmation text: Language EN**

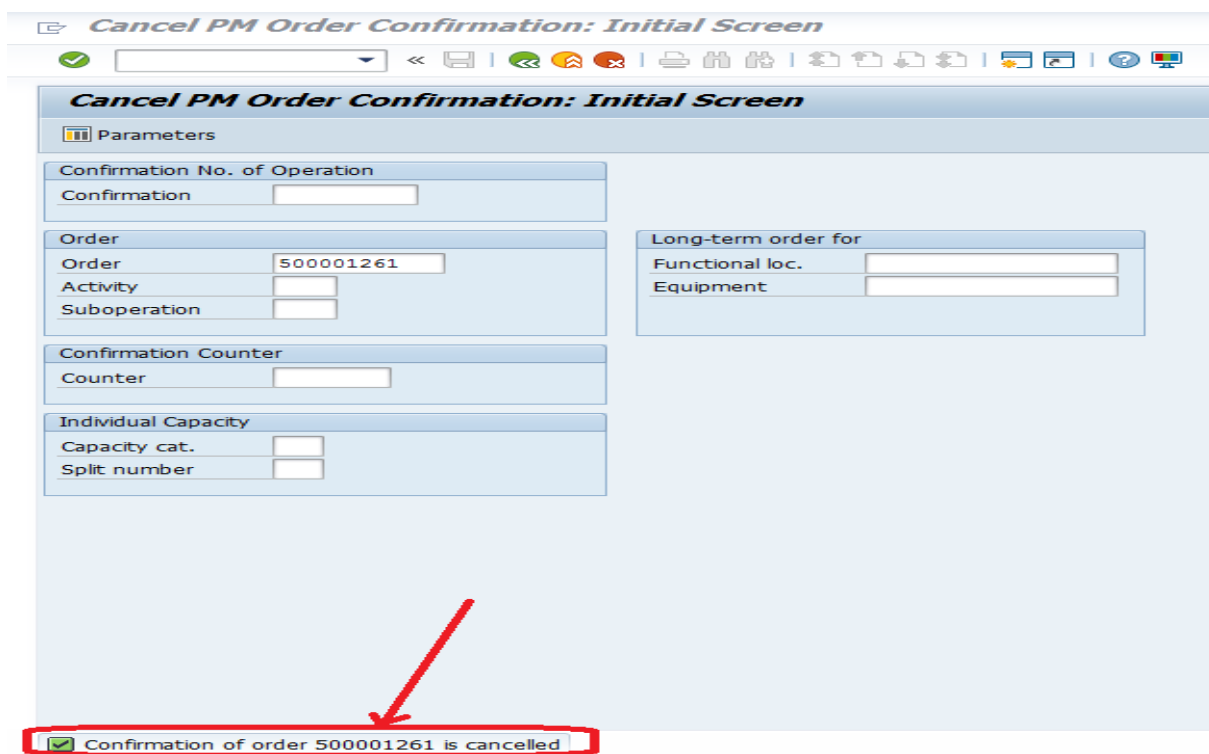
SAP

Cut Copy Paste Advanced Find Replace Select Undo Redo Reset Paragraph Format Reset Character Formatting Styles Spelling & Grammar Research Translate Thesaurus Set Proofing Language Word Count Print Layout Draft

Reason for Cancellation



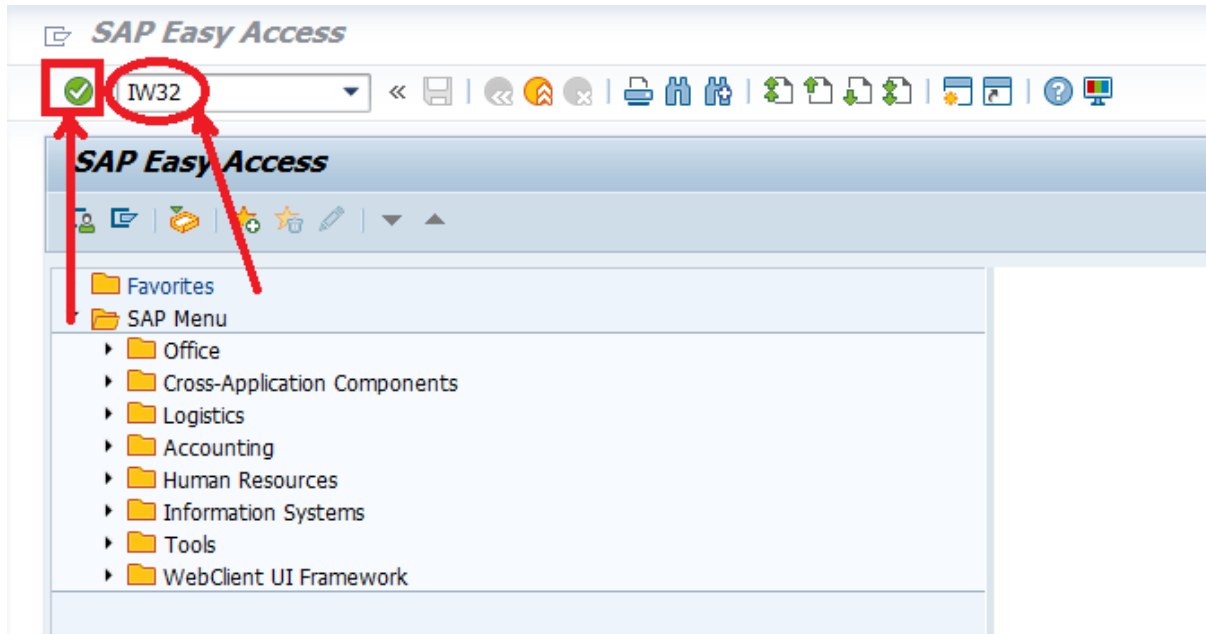
**Step-6:** The completion confirmation would be cancelled and same would be displayed in the status bar as shown below.



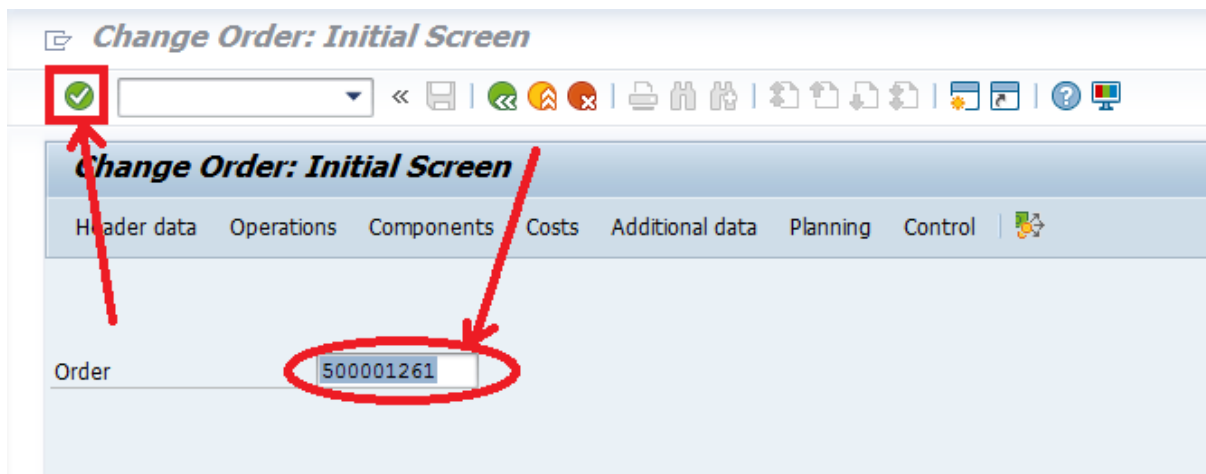
It may be noted that the documents pertaining to both the completion confirmation originally performed and subsequent cancellation of the same would be maintained and available in the maintenance order. The same can be viewed there in the process explained above in the topic **“Viewing completion confirmation against an operation”**.

## Process of performing ‘Technical Completion’ of Maintenance Order:

**Step-1:** Enter T-code **/NIW32** in the command field and click **enter** button as shown below.



**Step-2:** Enter the maintenance order number and click **enter** button as shown below.



**Step-3:** It may be noted that the maintenance order is presently in **Released and Partially confirmed(PCNF)** status since all the operations in the maintenance order are not yet confirmed.

*It may be noted that technical completion of the order can be done even without performing completion confirmation of the order. It can also be done in the partially confirmed status as well.*

The technical completion of the order can be done by clicking the **“Complete (technically)”** icon appearing as **black and white flag** in the **‘Header Data’** tab of the Maintenance Order as indicated below.

**Change Preventive Maintenance Order 500001261: Central Header**

Order: PM03 500001261 Tadikonda-VTPS 220KV FB-01

Sys.Status: REL PCNF MMT PRC SETC

HeaderData Operations Components Costs Objects Additional Data Location Planning Control Other Details

Person responsible

PlannerGrp: M02 / 5117 MNT1 2TADIKONDA

Mn.wk.ctr: MNT / 5117 MAINTENANCE

Notificatn: [ ]

Costs: 0.00 INR

PMActType: PRM Preventive mai...

SystCond: [ ]

Dates

Bsc start: 14.12.2018 Priority: 2 High

Basic fin.: 14.12.2018 Revision: [ ]

Reference object

Func. Loc.: FB-220KV-IDKD-VTP... FB-220KV-TADIKONDA-VTPS-01

Equipment: [ ]

First operation

Operation: Measurement of Tan Delta and capacitance CcKey: [ ]

WkCtr/Plnt: MNT / 5117 Ctrl key: PM01 Acty Type: [ ] ☒ PRT

Work durtn: [ ] Number: [ ] Oprtn dur.: [ ] ☐ Comp.

**Step-4:** A pop up window would be populated as shown below indicating a reference date of technical completion which is by default, the order creation date. The same can be modified as actual technical completion date, as shown in second screen shot below. Now click **enter** button in the pop up window.

**Change Preventive Maintenance Order 500001261: Central Header**

Order: PM03 500001261 Tadikonda-VTPS 220KV FB-01  
 Sys.Status: REL PCNF NMAI PRC SETC

HeaderData Operations Components Costs Objects Additional Data Location Planning Control Other Details

Person responsible

PlannerGrp: Complete  
 Mn.wk.ctr: Reference Date: 14.12.2018  
 Reference time: 00:00:00

Dates  
 Bsc start: ☒ Complete notiftctns  
 Basic fin.

Reference ob.  
 Func. Loc.: FB-220KV-IDKD-VTP... FB-220KV-TADIKONDA-VTPS-01  
 Equipment:

First operation  
 Operation: Measurement of Tan Delta and capacitance CcKey  
 WkCtr/Plnt: MNT / 5117 Ctrl key: PM01 Acty Type: ☒ PRT  
 Work durtn: Number: Oprtn dur.: ☐ Comp.

**Change Preventive Maintenance Order 500001261: Central Header**

Order: PM03 500001261 Tadikonda-VTPS 220KV FB-01  
 Sys.Status: REL PCNF NMAI PRC SETC

HeaderData Operations Components Costs Objects Additional Data Location Planning Control Other Details

Complete

Reference Date: 26.12.2018  
 Reference time: 15:50:01

☒ Complete notiftctns

Basic fin.: 14.12.2018 REVISION:

Reference object  
 Func. Loc.: FB-220KV-IDKD-VTP... FB-220KV-TADIKONDA-VTPS-01  
 Equipment:

First operation  
 Operation: Measurement of Tan Delta and capacitance CcKey  
 WkCtr/Plnt: MNT / 5117 Ctrl key: PM01 Acty Type: ☒ PRT  
 Work durtn: Number: Oprtn dur.: ☐ Comp.

**Step-5:** A message that order has been saved is displayed in the status bar as shown below. Now click enter button as indicated below.

**Change Order: Initial Screen**

Order: 500001261

Order saved with number 500001261

It may be noted that after technical completion, the status of maintenance order is now changed to **TECO** as indicated below.

**Change Preventive Maintenance Order 500001261: Central Header**

Order: PM03 500001261 Tadikonda-VTPS 220KV FB-01

Sys.Status: **TECO** PCNF NMAI PRC SETC

HeaderData Operations Components Costs Objects Additional Data Location Planning Cor

Person responsible

PlannerGrp: M02 / 5117 MNT1 2TADIKONDA

Mn.wk.ctr: MNT / 5117 MAINTENANCE

Notificatn:

Costs: 0.00 INR

PMActType: PRM Preventive mai...

SystCond:

Dates

Bsc start: 14.12.2018 Priority: 2 High

Basic fin.: 14.12.2018 Revision:

Reference object

Func. Loc.: FB-220KV-TDKD-VIP... FB-220KV-TADIKONDA-VTPS-01

Equipment:

First operation

Operation: Measurement of Tan Delta and capacitance CcKey:

WkCtr/Plnt: MNT / 5117 Ctrl key: PM01 Acty Type: ☒ PRT

Work durtn: 0.0 Number: 0 Oprtn dur.: 0.0 ☐ Comp.