User Interview Insights

FIELD OPERATOR - (Human sensor on the field)

| FIELD OPERATOR | (Human sen | sor on the field) | | | | | |
|--------------------------|--|---|---|---|---|---|---------------------------------------|
| | Feed the information in the MES system to ensure continuous operation | Perform tasks - work instruction. Update constantly | report field equipment problem | | | | |
| Goals | Ensure safety of the plant | Fill checklist | capture abnormal events from field | | | | |
| | Avoid breakages in the production | Create logs | Report accurate info to panel operators | | | | |
| | Reference past information for his preventive measures | Generate SH reports | Record valuable information easily | | | | |
| | Compiling reports for next shift | create audit trails | Right information at the right time from field | | | | |
| | Transfer plant status to incoming operators | Fill checklist | | | | | |
| | | enter logs in logbook | | | | | |
| | | follow instructions and update status | | | | | |
| | | create detailed activity log | | | | | |
| | | performing field operations - checks, report device status, take control actions, maint:tasks | | | | | |
| SUMMARY OF GOALS: | Ensuring safety & operations | Performing field operations | Reporting, recording info | Logging | Handover | | |
| | | | | | | | |
| Behaviour | Check RPO for assigned work instructions | Directly affected by weather (sun, storm etc) | Use RPO to generate shift report | | | | |
| | Access information | Routine checks on units and equipments | Get info from operators regarding the previous shift | | | | |
| | Reference SOP instructions | Walk, climb, hear, see, observe, act | Get briefing from shift supervisor | | | | |
| | Search for tasks to be done Looks for work orders, | Do field operations as instructed | Look for Dev status in last shift | | | | |
| | permits issued | | Record (enter) data & information | | | | |
| SUMMARY OF BEHAVIOUR: | Operations - checking tasks and permits | Field work | Recording, reporting info | Shift related | | | |
| | Inability to attach important details to a log (e.g. photo, table etc) | Lack of info & guide at fingertips | Physical frustration (environment) and dangerous surroundings | Redundant tasks suchs as entering information into the system | Faulty equipments | Unable to see alarms in the field | |
| Frustrations | No ability to record real- time information on paper or mobile device | | Bad weather conditions | Tracking Dev status in huge check list | | | |
| | Unable to locate the instrument to be investigated | | Carry all neccessary things to heavy (lots of gadgets to carry) | | | | |
| | Difficult to access information in the field | | Using mobile device with gloves on hands | | | | |
| | Moving to another workstation to access RPO | | | | | | |
| SUMMARY OF FRUSTRATIONS: | No mobility | Lack of info at finger tips | Nature of the job, inpracticalities with equipment | Redundancy of info entering and huge check lists | Equipment faults and repairs | Unable to see critical information from anywhere | |
| | | | | | | | |
| Complaining about | Search by work order number or permit to work number | Provide continuity in creating check lists - start from the last filled up one | Can't enter data/report when system is either slow response or frozen/failed | No mobile version | View too general for information access | Not familiar with the system for data entry and reporting | Text too small |
| | Search is not very rich | | Operators do like to enter data in the system for reporting. They like to fill in the standard form to reporting | | | | Gant chart view |
| | | | Opening system is not very fast | | | | Single click drag'n'drop photos |
| SUMMARY OF COMPLAINTS: | Search not useful enough | Check lists lacking continuity | System problems (frozen or faulty) | No mobility | View is too general, they's prefer something more role related | Feeling untrained | UI problems |

SUPERVISOR

Check critical equipment Review, approve, summarize Instruct the operators

| | Check critical equipment status and task status | Review, approve, summarize tasks for the shift | Instruct the operators | | |
|---------------------------------------|--|---|--|---|---|
| Goals | Minimum upsets, maximize output | To lead the team | Train new operators | | |
| | Zero safety incidents | Schedule, Plan, Execute tasks | Manage a team of operators | | |
| | Manage problems encountered | Bridge between Manager & operator | | | |
| | Oversee shift operations | Report planned vs actual activities | | | |
| | ? someword operators to carry out task safely | | | | |
| SUMMARY OF GOALS: | Oversee operations & safety | Review & Manage tasks | Manage & Train operators | | |
| | | | | | |
| | Review production plan | Ensure plant is operating safely | Create work instructions/taks | Compile shift handover report | |
| Behaviour | Check Maintanance plan & activities | Ensure operators are carrying out tasks following SOP | Create work requirements for work orders to the maintanance section | Compile & report only information that matters | |
| | Review plan vs. actual | Execute tasks | Make taks list as per daily operating guidelines | Compile SH report | |
| | Plan for any shortcomings to achieve targets | Coordinate with other teams | | | |
| | Check events that may disturb production | Mentor new operators | | | |
| | Plan, schedule, review tasks | | | | |
| | Review incident reports and approve tasks | | | | |
| SUMMARY OF BEHAVIOUR: | Review & Plan | Ensure operations & safety | Creating tasks | Compiling reports | |
| | | | | | |
| | Too many tasks | Lack of clear info/guide for a particular task | Difficult to summarize shift activities | Conscise & accurate reporting | Plant upsets or equipment failure |
| Frustrations | | | | | |
| Frustrations | Add hoc tasks occuring | Difficult to set views as they want | | Consolidate shift events for handover report | Process multiple systems for certain tasks such as CMMS and RPO |
| Frustrations | Add hoc tasks occuring Under resource & schedule pressure | | | events for handover | multiple systems for certain tasks such as CMMS |
| Frustrations SUMMARY OF FRUSTRATIONS: | Under resource & schedule | | Activities summary | events for handover | multiple systems for certain tasks such as CMMS |
| | Under resource & schedule pressure Work overload and unexpected events | want Unable to see the most relevant info | | events for handover report Conscise & accurate reporting | multiple systems for certain tasks such as CMMS and RPO Plant and systems |
| SUMMARY OF FRUSTRATIONS: | Under resource & schedule pressure Work overload and unexpected events Report doesn't meet their need | want Unable to see the most | Activities summary Unable to add annotations to trends | events for handover report Conscise & | multiple systems for certain tasks such as CMMS and RPO Plant and systems |
| | Under resource & schedule pressure Work overload and unexpected events Report doesn't meet their | want Unable to see the most relevant info | Unable to add | events for handover report Conscise & accurate reporting Event should be | multiple systems for certain tasks such as CMMS and RPO Plant and systems |

SUPERVISOR

| | Planning & | Taking over shift | Monitoring & | Reporting | Close up - shift |
|-----------------------|---|--|--|--|---|
| STAGES / PHASES | Prioritization | | Supervising | | handover |
| WHAT IS USER DOING | Review active alarms from previous shift | Approve incoming shift handover report and note | Monitor progress of critical task | improve accuracncy of information collected | Create outgoing SH report |
| | Review status and task logs of previous shift | Create work instruction and assign | Coordinate team members to execute tasks | summarize shift activities | Execute SH handover |
| | Create task list | | Status of plan vs. actual activities at any time throughout the shift | auto compile shift reports consolidate information from operators | |
| | Assign tasks | | task decision making when necessary | | |
| | Create work instructions and assign | | review tasks | | |
| | Get high level tasks from managers or other departments | | provide guidance to resolve issues | | |
| | | | | | |
| | | | | | |
| | How to improve efficiency and reduce errors | What tasks needs to be executed to ensure smooth operations | What are my targets | How good is data captured | |
| WHAT IS USER THINKING | | What are my priorities for today | Do I have all what i need to achieve the targets | | |
| | | | How can I provide correct guidance at correct time | | |
| | | | Judging operators capability and usefulness of the systems | | |
| | | | | | |
| | Normal | All information in one window would be good | Too much data, insufficient information "Actionable" | Frustrated when unable to generate report to management | Too much information t review at the end of the shift |
| WHAT IS USER FEELING | | Stress | What is the best way to use RPO | More stressed | |
| | | | | | |
| | | Ability to modify what operators have written to make it more meaningful | | | |
| OPPORTUNITIES | | Easy access to certain approvals (if there are not on their desk) | | | |
| | | | | | |
| | | | | | |

FIELD OPERATOR

| STAGES / PHASES | Planning & Prioritization | Taking over shift | Executing tasks | Reporting | Close up - shift handover |
|-----------------------|---|--|--|--|---|
| WHAT IS USER DOING | Refer to planned task list | Toolbox meeting | Go out to conduct field tasks | Report the shift events | Shift handover meeting (outgoing) |
| | Refer to shift handover paper | Meet outgoing operator discuss plant status activity | Execute planned & unplanned tasks | Outgoing shift handover | Prepare shift report and perform shift handover |
| | Review SH report | Confirm required activities in this shift | Continue opened tasks from previous shift | Report back work status | close shift |
| | Planning shift takss | Collect all neccessary tools / info required for | Do routine tasks | Enter logs | approve outgoing shifthandover report |
| | Talk to outgoing operator | | Do any ad-hoc tasks | Update task status | |
| | Discuss with incoming shift groups | | Take notes while performing tasks | | |
| | Take notes on major events happened | | Field equipment investigation | | |
| | Obtain work instruction from control room | | Inspections & checks | | |
| | List down tasks to be completed | | Record data for reporting | | |
| | | | Communicate to panel operator | | |
| WHAT IS USER THINKING | What is the status of the plant? Good? Bad? | Did I receieve all the inputs to take over the shift? | Can we capture dev- status automatically in the check list? | Not enough time to enter all the notes into the system | Compile the SH report orderly & quickly |
| | Is today going to be busy? | Add this SH tasks & prioritize in an ordered way | How many tasks can I complete today? | Do I have sufficient time to write the SH report | Did I miss anything |
| | Is there a similar event that happened in the past? | Understand clearly what to do and how to do it | Can I write & remember this when I go back to control room | What should I include in the log | Why can't report compilatio be automated (based on shift time?) |
| | | | | Is this critical information | |
| | | | | How can I easily differentiate logs/WI created in this shift | |
| WHAT IS USER FEELING | Openmind to absorb all the inputs | Wondering weather he received all inputs | Frustrated if tasks are too much or to intense | I don't want to fill in many fields, can we make it more simple? | Relieved |
| | Alert & Aware | | Relaxed and calm if there isn't any major issue | Tired | |
| | Anxious | | Wondering weather system can advise how to perform the task | In a hurry | |
| | | | Wondering weather he is doing his job correctly? SOP followed? safe? | What is important for the report | |
| | | | | Recollecting shift events | |
| OPPORTUNITIES | Auto assignment of operator and time allocation | Biometric access like finger print or retina scan to make login easy | Light weight mobile device to record field inputs with less effort | Inteligent SH generation | Provide customizable reportemplate |
| | Presenting correct information to correct user | Able to carry checklists & SOP to the field electronically | Avoid typing, voice based data entry (of logs and WI) | Simple user interface to make report | |
| | Easy to retrive task list & previous task status | | Auto filling of info | Minimize data entry & checks in a SH report | |
| | Task view for all shift members | | Able to view equipment status from the field (portable data entry device) | Provide to-do checklist (maybe auto-generated) | |
| | Scheduling the form and Gantt chart | | | | |
| | Show by default what user needs to see | | | | |