

Industrial Maintenance Supervisor Duties

Question:

“I will be most grateful if you can educate me more on the duties of a maintenance supervisor.”

Reply:

Dear Sir,

Thank you for the question. As I don't know your particular circumstances my reply will be about the overall role of a maintenance supervisor in industry including what duties are undertaken by the position and how well they should be fulfilled. What follows are my thoughts after years of managing maintenance crews and improving maintenance processes, but they are only my opinion.

Supervision is a vastly satisfying job when done well. To discuss the duties of a maintenance supervisor we first need to understand the role in the business and in the organisation. Figure 1 shows likely organisational situations requiring a maintenance supervisor.

Maintenance Supervisor Role

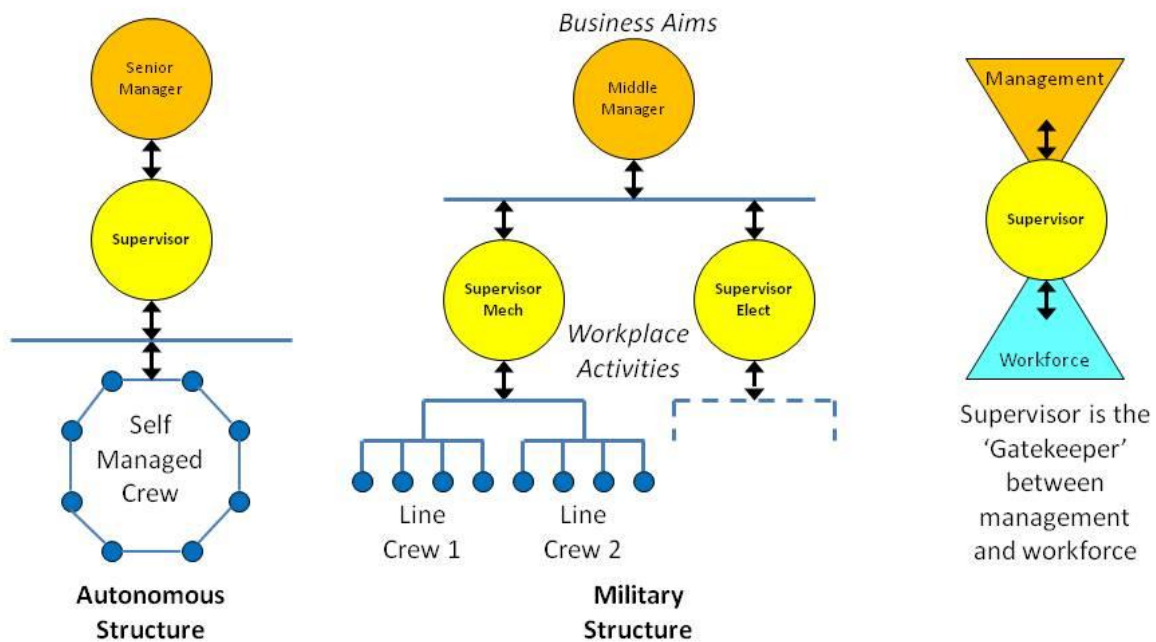


Figure 1 – The Maintenance Supervisor Role in the Organisational Structure

The maintenance supervisory role is the link between an organisation's management and the maintenance workforce. The role wields great power because it is the 'gatekeeper' between management and workforce. The position passes information between groups and makes decisions. It can 'filter' information content and bias decisions and opinion in both management and



workforce by what is passed from one to the other. Because the role is a link connecting management and workforce it is critical to the successful operation of the whole organisational structure. If the role is not done well and the link ‘fails’ both the workforce and its management will suffer problems.

The organisation has the duty to achieve the business owner’s plans while also ensuring the organisation delivers products or services that satisfy its customers (That obligation is there because the organisation is paid by the business Owner to do the work wanted by the Owner and the employment contract obligates people in the organisation to provide the necessary service that they are paid to give.). The ‘mechanical’ function of a supervisory job is to make sure the workforce does what a business’ senior management wants (because the management is under instructions from the Owner to achieve the required outcomes.). But people are not machines so we must also add humanity into the role of the supervisor.

In summary, the business function of a supervisor is to ensure the workforce acts correctly to achieve the business aims. From that requirement we can draw the necessary duties of the role and the necessary capabilities needed to do the role well.

Duties of a Maintenance Supervisor

These duties are in no particular order. Each becomes important at various times in the range of situations a supervisor is required to handle.

1. **Clarity of Purpose:** A supervisor needs to clearly know the business aims he is responsible to deliver. Also they must know clearly the limits and range of their responsibilities and the acceptable behaviours expected of the position. Management needs to provide a document advising what they require of the role and what management will do to support the successful functioning of the role. For a maintenance group the business aims are usually to keep plant and equipment operating in a state that delivers the planned production capacity while delivering the required product quality for the least maintenance cost.
2. **Organise:** This duty is to ensure that each day maintenance work runs to schedule and to a plan. The supervisor has a diary of work timetabled for each day of the week prepared prior the start of the week. This is their plan of how they will run the week ahead. At the end of each day the plan and schedule for the next day are reviewed, finalised and preparations for tomorrow are completed and made ready for the coming day’s jobs.
3. **Prioritise:** The role must make decisions on allocation of resources in situations of constraint. The supervisor is responsible for labour allocation that brings the greatest benefit to the organisation. Which choice brings the greatest benefits is usually discussed with the appropriate manager during information gathering research before publicising the final decision.
4. **Lead:** This responsibility is a leadership position. To be a leader is to always be at the forefront by example. It means not sending people into situations that they cannot successfully complete because skills and preparations are poor. It includes asserting oneself when one see dangers and risks, not in a negative way that destroys progress, but a way that provides better, safer alternatives to achieve the aims.
5. **Set Standards:** The supervisor is the keeper of work quality standards. The craftsmanship standards a supervisor supports will be the skill standards their people meet. A supervisor must



be in no doubt of what excellence looks like, just as equally as they must be in no doubt what inadequate results and performance looks like. A maintenance supervisor with low work quality standards will allow the ‘gremlins’¹ that cause equipment failure to flourish in their company.

6. **Coordinate:** The duty of coordination is to ensure everyone doing a maintenance job, or affected by maintenance work, knows exactly what is going on before and after it happens. Every department that uses the maintenance group’s services need to be aware well ahead of time what the maintenance work is, and how it will affect them. Ideally ever Operations supervisor and operator know by the end of each shift what maintenance work is planned for the next shift. By early each shift every Operations person affected knows the maintenance impacts and requirements for that shift. The maintenance supervisor coordinates with Operations to make sure everyone is ‘on the same’ page and ensure that they fulfil their requirements for the work to go as planned.
7. **Supervise:** This means knowing exactly what is going on in good detail with every job at all times. Regularly during the day a supervisor needs to go and see the work for themselves and not believe the stories told by someone else. At least half of the day will be involved in understanding how well each workface is progressing and how well each job is being done. Staying informed and current needs a mix of informal and formal meetings during the day and occasional visits to each workface.
8. **Monitor Progress:** This means keeping an indicator of work progress against the plan. At least every two hours the progress on each work front is updated to its current status. Well before the main shift break a supervisor knows if the day is likely to go successfully or not and initiates necessary action.
9. **Report / Inform:** The supervisor keeps management fully informed of the workforce performance and the issues the workforce is confronting. Daily management feedback includes formal and informal meetings with operations and maintenance management, weekly feedback will include current progress on KPIs and plans for the coming week and month, monthly contents will include historic performance of KPIs and progress against the annual improvement plan, and annual feedback is a written report on the successes and problems resolved in the past year and the supervisor’s plans over the coming two years to achieve the business aims. The supervisor is also responsible to keep the crew informed of progress on resolving issues that affect them.
10. **Preparation Readiness:** A supervisor responsible to get maintenance work completed on-time, on budget and safely will work closely with persons planning jobs in order to know what future work is to be done. They will also work closely with persons scheduling work orders (arranging and readying a work order) to be sure the jobs for the week will go well. From the planning function a supervisor wants to know the workload in the coming weeks and what the work requires of the maintenance group. From the scheduling function the supervisor needs to know when jobs can be surely and safely started. The planning makes the future successful, while the scheduling makes today successful. The supervisor meets with the Planner near the end of the work week to learn what the next week and month holds in store. They meet with the Scheduler near the end of each shift to plan tomorrow in detail and at the start of each shift to confirm the work that will be done that day. The supervisor does not want to be surprised by events; they need to be in complete control of events.

¹ Gremlins are imaginary demons living inside machines whose job is to destroy equipment. It explains why we have breakdowns. Of course the gremlins are us.



11. **Mentor:** A supervisor works through people to get those tasks done that achieve the business aims. The role carries the responsibility to guide the maintainers to do right work rightly. A supervisor will regularly talk to each of their people offering assistance to improve performance if needed, providing honest and useful feedback when quality and performance standards drop, and actively building cohesion amongst the maintenance group so it works like a team.
12. **Loyal to the Business:** The duty a supervisor fulfils is to do what the organisation requires and this obligates the supervisory role to put the well-being of the business first. The supervisor always carries the imperative to ensure no harm is knowingly done to the business or any of its people, whether management or employee.
13. **Manage Risk:** This responsibility is far more than ensuring that all maintenance work is performed safely and to plan. The requirement covers all business risks, including commercial risks, legal risks, regulatory risks, environmental risks and occupational health and safety risks. Where a supervisor foresees trouble they bring it to the right people's attention, and in their own jurisdiction they act to prevent it.
14. **Train and Educate:** The supervisor and their people embrace continually education in new and better ways that make the maintenance group more efficient and effective. Learning to be better at our jobs is everyone's responsibility and the maintenance supervisor makes sure moneys are budgeted for at least a week or two of training and retraining each year for all in the crew. Areas of training include how the operation's products are made, product quality and its control, the engineering and science used to make the product, the design of the equipment used, new technologies to improve workmanship, up-skill of craft skills, etc. A learning organisation makes learning a planned habit.
15. **Business Acumen:** A person doing a supervisory role fulfils a management function and takes on the obligations of management. All their decisions must be to the benefit of the business. A maintenance supervisor is a vital part of operational success. Their decisions and judgment calls will heavily impact the operation of plant and equipment, which in turn improves or degrades the business performance. A supervisor must have business sense and not put an operation into jeopardy with its customers.
16. **Financial Responsibility:** Understanding financial reports is a requirement of a supervisory role. A maintenance supervisor needs to understand where the money is made and lost in the business of maintenance. They will need to develop financial reports and budgets for monthly and annual reports and explain their economic reasoning to others in the organisation.
17. **Technically Able:** The supervisor must know and understand the technical, engineering and quality requirements of the operating processes and the plant and equipment used in the process. They must be sufficiently technically able that crew members have confidence in the supervisor's judgement on the day-to-day technical matters the crew is required to perform. The supervisor ensures the technical details are right and will liaise with Engineering and equipment manufacturers to get information.
18. **Continual Improvement:** A supervisor champions business process improvement and is always looking for simpler, smarter and more effective ways to do the work undertaken by the maintenance crew. Where they see opportunity they investigate it and build a business case to explain to management how and why to proactively adopt useful changes.

19. **Conduct Urgent Jobs:** When unplanned or urgent work arises the supervisor delegates the resources to plan, procure and perform the work safely and effectively while still maintaining schedule compliance on the high priority work timetabled for the week. When a job is urgent it requires even greater care in planning and preparation than a job with time to think things through.
20. **Ethical Behaviour:** Impeccable ethical behaviour and judgement is what must be shown in all situations. Supervisors can be easily compromised if they are not wary of circumstances that can put them in ethical turmoil. It is best if a supervisor does not manage family members, friends and family of friends. Find them positions under an uncompromised supervisor.

The coverage of the role and the complexity of the functions it performs makes maintenance supervision an exceptionally demanding job. Perhaps even more difficult to do, because of its diversity, than the management position it reports to. It will require the supervisor to develop their most promising people so they can delegate supervisory duties to them. This of course is the mentoring responsibility of the position—to develop people with the necessary skills and competence to be supervisors. Through the supervisory role great benefits can be gained for both the company and its people.

Maintenance Supervisor Performance Standards

Knowing the duties of a supervisor does not mean a person in the role can do all functions well enough. I've added the following table to provide indication of the level of quality at which I would want a maintenance supervisor role to be performed. They are my opinions based on career experiences and general reading on leadership. The ACE 3T² layout shows the range of likely performance variation in the role, with the target being outstanding performance and nothing less than 'good enough' being acceptable. A person ably performing at the 'best' quality in all duties is ready to move to higher levels in the organisation.

Each organisation can set its own levels of performance against each duty by discussing with the company's management the range of minimum to exceptional performance for each criterion and documenting it in an ACE 3T layout table. The important thing is to set performance quality standards so everyone knows what top quality work looks like. Then those in the supervisory position can start developing the necessary skills and competence to become that good.

The supervisor role can be performed in a firm, positive way right through to being demanding and overbearing (and shades in-between). Successful maintenance supervisors have planned and prepared for work to go well, are aware of changing workplace situations, get the organisation's work done timely and safely, ensure their crews work diligently and help their people to do it all even better.

My best regards to you,

Mike Sondalini
www.lifetime-reliability.com

² ACE – Accuracy Controlled Enterprise; 3T – Target, Tolerance, Test

Maintenance Supervisor Performance Standards (ACE 3T Format)

No	Duty	Test to Confirm Performance	Tolerance Range on Performance			If Out-of-Tolerance	Best Practice Comments
			Good	Better	Best		
1	Clarity of Purpose:	Meet Key Performance Indicators	Meet all KPIs	All KPIs met, many above expectation	All KPIs met, most above expectation	Analyse why KPIs not met and resolve issues	
2	Organise:	Scheduled Work compliance KPI	Greater than 80% weekly schedule compliance	Greater than 90% weekly schedule compliance	Greater than 95% weekly schedule compliance	Analyse why schedule is not met and resolve issues	By the end of each day all work due the next day is ready to go. In the morning a final review puts the day's jobs into play. All maintenance crew trained to anticipate problems and proactively address issues before they impact schedule.
3	Prioritise:	Jobs completed in Priority order	Daily jobs' priority are set in consultation and completed in priority order	Jobs' priority set in consultation and high priority jobs completed first	Daily work priority is identified in advance and jobs thoroughly prepared to go well	Understand and address why priority work was not done	Jobs due next week are diarised by start day and capacity. Each day the schedule is reviewed and adjusted in light of circumstances. Organising each day's jobs start several days in advance.
4	Lead:	Level of confidence from crew and management	Most people in department openly support supervisor	Full support for supervisor throughout their department	Strong support for supervisor across the operation	Understand why people are reluctant and address issues	
5	Set Standards:	Best practice standards used	Documented standards specified and crew fully aware of them	Documented standards repeatedly discussed and made clear to all	Documented standards followed and crews trained and retrained to meet them	Identify vital work quality standards and introduce them	Necessary work quality standards are documented into the maintenance processes and people achieve them competently
6	Coordinate:	People fully informed of work affecting them	People are advised of work in advance and risks to jobs are reviewed. A written schedule is circulated of agreed dates and time for jobs	In addition, schedule is recorded in Operations and Maintenance inter-departmental and shift communication	In addition, acknowledgment of Operational commitments received in reply	Introduce process of sure daily communication across the operation on maintenance job commitments	Sure communication and confirmation of receiving the right content of a 'message' is necessary. There must be physical evidence the 'message' is understood and that correct actions will afterwards occur. Everyone impacted by planned events needs to know what is happening and how they're affected.
7	Supervise:	Awareness of jobs and labour status	Keeps aware of situation via 2ICs and daily review meetings	Also conduct a daily tour to see workforce status for themselves	Also perform impromptu audits of workfaces to ensure work plan and standards are met	Understand why work is not supervised and address issues	
8	Monitor Progress:	Actual job performance is tracked	Visual evidence kept of each job's progress	Visual evidence update every two hours	Evidence of job progress is updated hourly and publically available to all	Introduce visual method of job progress tracking	Need a mechanism that keeps people informed of a job's status in order to identify problems early.
9	Report / Inform:	Degree of management awareness	Department knows the weekly plan and the daily schedule and job progress; crew aware of progress on workplace issues resolution	Operation-wide awareness of weekly and daily job plans and their progress; crew involved in resolving workplace issues	Operation-wide awareness of annual, monthly, weekly and daily plans and progress; crew solves workplace issues	Identify and introduce site and management information requirements	Proactive communication and information transfer need to be normal practice.
10	Preparation Readiness:	Awareness of work preparation status	Follows-up progress with Planner and with Scheduler daily and learns of issues arising	Planner and Scheduler plan their day and Supervisor follows-up on progress and issues to be resolved	Planner and Scheduler advise daily of their progress to plan with preparations and how issues are/will-be addressed	Introduce process for regular update on status of all work preparations	Quality maintenance work can only be done if all tools, equipment, parts and information are available and all these requirements must be ready before a job can be started.
11	Mentor:	Feedback to improve crew members' performance	Twice yearly personnel reviews to assist people improve competence and	Quarterly review sessions for each person aimed at helping improve competency and	Quarterly planned feedback on individual performance, provide assistance to improve job	Introduce personnel review and later follow-up meeting on person's	

Maintenance Supervisor Performance Standards (ACE 3T Format)

No	Duty	Test to Confirm Performance	Tolerance Range on Performance			If Out-of-Tolerance	Best Practice Comments
			job satisfaction	work satisfaction	satisfaction and follow-up until issues resolved	progress and issues resolution	
12	Loyal to the Business:	Support for achieving the business aims	Perform their required duties to satisfactory standards	Seek opportunities to improve department and introduced necessary changes and systems	Proactively improve departmental business processes and raise workplace quality and performance standards	Clearly identify the business aims and how Maintenance can work to aid their achievement	
13	Manage Risk:	Reduced frequency and difficulty of business and workplace risks	Reviews situations for risk and manages risk factors to lower the level of severity	Uses best practice risk management methods to identify and control risks	Pre-empt risks and proactively puts management strategies into place, then monitors progress and responds accordingly	Introduce internationally recognised risk management standard	Processes are required where everyone can identify business risks of all types well in advance and then introduce appropriate practices to reduce the risk, and be sure the risk is actually being controlled
14	Train and Educate:	Crew does all work successfully	Annual training plan is completed by all	Quarterly plan for training and refreshers for all crew	Some form of training, retraining and new learning for all crew is a normal weekly practice	Develop training plan for each individual and implement	To become a learning organisation means learning and education is part of normal activities
15	Business Acumen:	Quality of business decisions	Most decisions benefit the department and its aims	Many decisions benefit business performance through improved efficiency and/or effectiveness	Vast majority of decisions improve business performance through improved efficiency and/or effectiveness	Thoroughly investigate choices and review recommendations with Manager	Decision making made alone carries risks which the decision maker cannot see. Thorough investigation improves understanding of a situation and a review by the supervisor's manager reduces the business risks.
16	Financial Responsibility:	Manage financial results	Is within $\pm 15\%$ of budget	Is within $\pm 10\%$ of budget	Is within $\pm 5\%$ of budget	Use external financial control until trained to manage finances	A supervisor is required to control to the budget and provides input to the budget's development and so needs to be financially literate
17	Technically Able:	Competence shown in all technical requirements of the job	Adds value to technical decisions made by the maintenance crew	Adds value to technical and operating decisions made in Maintenance and Operations	Adds value to technical and operating process decisions made by management and Engineering	Use external technical control until technical competence reaches the necessary level	
18	Continual Improvement:	Frequency of useful improvements implemented into normal practice	Implements 3-4 departmental process improvements annually	Implements 3-4 best ideas from crew quarterly and changes departmental processes to make them standard practice	As well as implementing best ideas from crew quarterly also actively goes outside of company in brings better practices into the operation	Find opportunities for improvement each quarter and implement them by end of the following quarter	The pace of innovation and improvement must be increased so the business performance intentionally improves
19	Conduct Urgent Jobs	Ability to respond to and address unexpected maintenance problems	Key crew are trained and ready for maintenance emergencies	Process is in place to rapidly plan and prepare response under emergency situations so risks are identified and managed	All likely emergencies have been identified with response plans developed and documented; crew in continual readiness to effectively implement response	Apply proper emergency response processes and develop adequate response capability	Few urgent jobs should occur due to the proactive policies and practices supervisor puts into place. Those emergencies that arise need to be approached in a planned and organised fashion so calm and good sense prevails.
20	Ethical Behaviour:	There is trust and respect for the person in the role	Exhibits the right behaviours and values in private and publically	Departmental members show respect and trust due to the person's integrity	Persons throughout the operation show respect and trust due to the person's integrity	Identify vital behaviours and values and coach person until they are evident as normal practice	