

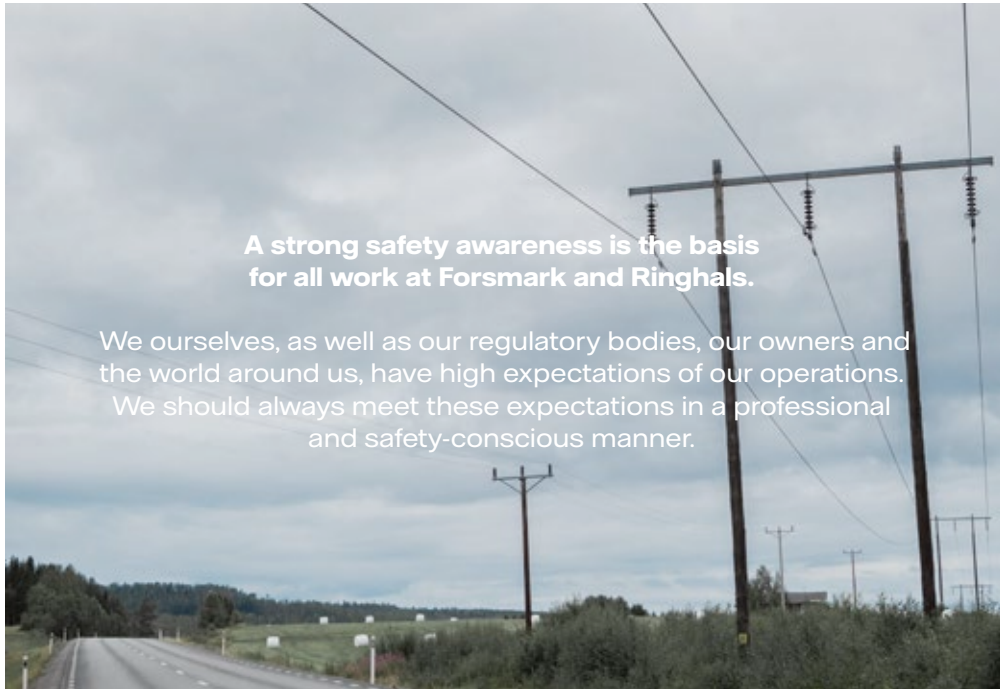


Our Values

How we work at
Forsmark and Ringhals



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A strong safety awareness is the basis for all work at Forsmark and Ringhals.

We ourselves, as well as our regulatory bodies, our owners and the world around us, have high expectations of our operations. We should always meet these expectations in a professional and safety-conscious manner.



Our values - my promise to you

Whether you are a manager, an employee or a subcontractor, the work you perform at Ringhals and Forsmark means a lot. Together we all contribute to maintaining safety and the values that characterise our workplaces. Because we are each other's work environment: there must be room for differences and companies must be permeated by an inclusive working climate.

The brochure you are holding in your hand summarises our most important values and principles and our error prevention procedures. We can be proud of our workplaces, where we take joint responsibility and develop to generate power for the world around us.

My expectation is that you always take our values seriously and pay particular attention to working safely. I promise to do so myself.

Björn Linde, CEO

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This is why we are here

Vattenfall's operations should help our customers and the world around us to become independent of fossil fuels within one generation. Our purpose is summarised in the words 'Power Climate Smarter Living'.

Our BA Generation business unit is a precondition for a climate-smart society. Nuclear power represents an important building block in our fossil-free groundwork. Our nuclear power plants must meet the demand for electricity, every day, all year round. Safe and stable operation is our motto, Ringhals and Forsmark our joint responsibility. It is our attitude and our actions when the pressure is greatest that distinguish success from failure.

Our principles describe a part of the culture we want to have and are summarised in the words Safety & Work Environment, Active, Open and Positive.

Safe and stable operation – now and in the future

Our nuclear power is unique, the consequences of our operations may be serious. Therefore we work on the basis of extremely high safety requirements. For those of us who work in the field of nuclear power, safety always comes first. Every one of us bears special responsibility resulting from this work. Whenever we make decisions concerning our various operations, they must not conflict with our radiation safety goals. In safety terms, we are conservative in our judgements.

When we talk about safety, we mean all aspects of overall safety that aim to protect individuals, plants and surroundings. We mainly mean operation, maintenance, development and decommissioning of plants, emergency preparedness, radiation protection, physical protection, information and IT security and fire protection.

In order to ensure safety, we have a number of physical barriers – from the fuel to the reactor building. In addition, we also have in-depth defence consisting of robust construction, multiple safety systems and routines for dealing with disturbances.

Vattenfall's Code of Conduct

Vattenfall's Code of Conduct and Integrity applies to all employees and persons acting on behalf of Vattenfall. It also applies to temporary personnel such as contractors, consultants, etc. Any violation of the Code may result in disciplinary action. Ignorance of the rules is no excuse. Our approach can be summed up in two words: think ahead.

The Code of Conduct stipulates how we should conduct our operations in an ethically, socially and environmentally appropriate way. We have zero tolerance for bribery and corruption. It is crucial that each of us complies with the high requirements placed on integrity, particularly when it comes to preventing corruption and anti-competitive behaviour.

The content of this brochure is based on Vattenfall's Code of Conduct and Integrity, as well as general governing documents and guidelines for Forsmark and Ringhals.

Whistleblowing

Openness is a fundamental condition for our operations. If you come across irregularities, you should feel comfortable contacting your manager, cNO/cNQ or CEO. These may include conflicts of interest, bribery and corruption, fraud, theft, suspicion of improper procurement, harassment, embezzlement, unfair market practices or violations of competition law.

One option is to contact Forsmark, Ringhals or the Group's whistleblowing function, where you can be completely anonymous.

The contents of this brochure are based on our general governing documents and guidelines for Forsmark and Ringhals, as well as Vattenfall.

Read more on the intranet:

- Vattenfall Code of Conduct and Integrity:
- Management Manual and Operational Policy for Forsmark and Ringhals
- WANO principles 2013-1, 'Characteristics of a sound safety culture'
- 'Bringing the Vattenfall purpose to life' – Power Climate Smarter Living
- Whistleblowing
- Our plan of action against unequal treatment
- Diversity and gender equality plan





We are each other's work environment

We are socially engaged and take great responsibility for our employees' and collaborative partners' health and well-being. A good work environment is fundamental in everything we do - and safety is always central.

Our Code of Conduct

Acting with integrity is doing the right thing - because it's the right thing to do. Integrity means that every employee takes personal responsibility for acting in accordance with Vattenfall's ethical standards.

Zero tolerance

There is zero tolerance for unequal treatment at Ringhals and Forsmark. No one working at our nuclear power plants should have to put up with bullying, discrimination or any form of harassment, regardless of background. We are all entitled to be treated with respect. It is important that each and every one of us contributes to an inclusive working atmosphere. We should have a good work environment for everybody at Forsmark and Ringhals. This applies to both our own employees and those that are on contract. It is our collective responsibility that no one is victimised.

Our plan of action against unequal treatment includes everybody: both employees and consultants/contractors. If you feel affected, see or suspect that someone else is, don't hesitate to contact your manager, your manager's superior, HRBP, health and safety officer, trade union representative or the occupational health service.



Reflection and development

Each position at Ringhals and Forsmark has its own unique conditions and demands. We do different things. Even if we have the same values, the way we actually act may vary according to the job we have. For this reason it is especially important to discuss with your manager and your colleagues what our values mean for you in your work.

On a first reading, many parts will no doubt seem self-evident, and not particularly demanding. But when we think through how we actually behave in specific situations in our work, things no longer seem quite so obvious. Living up to our values all the time, in all situations, is not so easy. But the more we talk to each other about how we want to be and how we want to work, the closer we will come to achieving our goal.



How we work with our values

Use our values as a compass and guidance when discussing with your manager, supervisor or colleagues what the values mean in your work. Is there anything that needs changing? Is there anything you need practice in? Explore the values: They can provide perspective and ideas on how things can or perhaps ought to function.



On your own

Read yourself and reflect on how you act yourself in different situations. How do you live up to the values, how do you perceive your workplace? Is there anything you react to? Bring it up with your colleagues and manager.



In your group

Get your group or your project group together and discuss how you act when things get tough. How do you function as a group? Do you collaborate with colleagues from different operations? Use our values to open a dialogue about how things work.



As a leader

Use our values as guidance in your leadership. Our values show how we want things to be, and what our employees should be able to expect. Introduce new employees or contractors by discussing how we work on the basis of our values.



Safety & Work Environment

Nuclear power presents its own particularly stringent safety requirements, which is why we take care of our in-depth defence and our barriers. This requires cooperation between people, technology and organisation.

We are aware of the risks and bear responsibility for our plants and workplaces to ensure they are safe for everyone who works here and for the world around us.

Our work climate allows us to discuss both the good and the bad. We help and encourage each other and show respect. Because we are each other's work environment, there is room for laughter, happiness and seriousness.

"After a working day, I want to feel that I have learned something new and had an enjoyable time with my workmates.

I might be tired and need to recover, but nevertheless feel that it will be nice to go to work the next day. Tasks sometimes pile up, but then my colleagues and I set priorities with our manager."



Promote our safety

Act safely and responsibly. Always look for ways to improve safety at your workplace.

Take care of yourself

Show that you care about your health and well-being. Be a role model for those around you.

Show consideration

Be considerate of the people around you and the communities and environments in which you live and work.

Reflect & discuss

1. In what way are you an example to others when it comes to safety?
2. In what way are you a part of the defence-in-depth?
3. What does it mean for you and your group that safety is always front and centre?
4. How do you take responsibility for your own health and that of others?



"When I receive constructive feedback I want to have the sense that it is not criticism that I have to defend, explain or promise to change. I listen and say thank you."

Open

Our business is powered by people and partnerships. We create the best climate-smart solutions with others. We are inquisitive and open.

We learn and share our knowledge. We are self-critical and courageous enough to constantly challenge ourselves. We exchange experiences, both within and outside of the nuclear power industry, in order to constantly improve. When we cooperate, we succeed.



See all sides of the matter

Be inquisitive and open to what others think. There is always something to learn.

Share your knowledge

Be generous and proactive. Share your knowledge and expertise.

Welcome feedback

Ask for advice. Answer questions and provide constructive feedback. This is how we develop.

Reflect & discuss

1. What do you do to encourage and motivate your colleagues?
2. Why is feedback important to you?
3. With whom do you collaborate? Can the collaboration be developed?
4. How would others be affected if you were more proactive?
5. Which collaborative partners do you and your group have?
How can you develop the collaboration?



Active

We are dynamic and want to find better solutions faster, both for our customers and the world around us. Taking responsibility for what we do and how we do it will enable us to achieve real change. We are engaged and active.

Continuous development is necessary in order to maintain high safety, generation and decommissioning standards. Therefore, we must ensure that we do the right things in the right way.

We learn, improve and simplify without taking short cuts and challenging safety. It should be easy to do the right thing. We are persistent in our endeavour to remove anything that complicates our complex operations.

We keep our promises and achieve expected goals with forward planning and stability.

"I can't change everything through my own efforts, but what I can do is think about what can be done differently, and highlight it. My colleagues and I help to develop each other's ideas."

Concentrate on the right things

Understand your role as a whole. Contribute actively to achieving our goals.

Simplify and change quicker

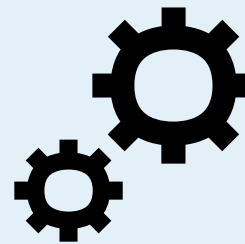
Seek effective solutions. Always ask yourself if there is a better way to do something?

Deliver on what you say

Set clear goals. Take responsibility for what you do – and how you do it.

Contribute to continuous improvement

Take responsibility for your own development.



Reflect & discuss

1. There are different types of goals. Which goals do you have in your group? How do you contribute?
2. In which way do you and your group contribute to overall operations/ electricity generation?
3. What can you do to simplify your working method?
4. Which of your group's working methods is simplest to change?
5. How do you contribute to your own development and that of the operations?

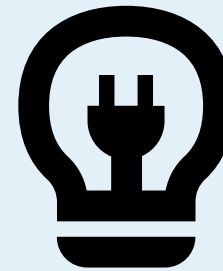


Positive

We are confident and courageous in making a difference. Sharing our knowledge will enable us to encourage more people to contribute to a better future. We are inspiring and positive.

We are proud of nuclear power's reliable, low carbon electricity, which makes a major difference for Sweden's welfare and environment. Each one of us is important en route to a sustainable future. Our customers and the world around us rely on us running our operations and acting safely, we repay their confidence in our daily work. Understanding what they expect and need enables us to stand back and see new perspectives, both large and small.

"For me there are both internal and external customers. For example, a customer could be someone I work with or supply something to – someone who is dependent on what I do. I try to understand how I affect them and meet their needs."



Understand the customer

Get to know your customers and do your utmost to contribute to their sustainable future.

Be solution-oriented

Act constructively, see opportunities and focus on finding solutions.

Energise

Inspire and energise your surroundings – in your own way. Highlight what's good and share good news.

Reflect & discuss

1. How do you inspire your surroundings?
2. Who needs your collaboration and your deliveries?
3. Which ideas or improvements do you want to address? Which conditions do you need?
4. In which way can you make a difference for the people with whom you collaborate?
5. How do you build confidence in nuclear power?



Leadership that delivers our purpose

In order to deliver our purpose 'Power Climate Smarter Living', we at Ringhals and Forsmark need to focus on and deliver in a number of strategic areas.

This requires strong and committed leadership. Leadership that strengthens and provides the conditions for people and the organisation to exploit their full potential. Focus areas Forsmark and Ringhals

In order to achieve our vision 'Required electricity every day, all year round', we have formulated the following focus areas for managers and leaders:

1. Connect people and strategy to achieve our purpose
2. Accelerate learning to exploit our full potential
3. Drive innovation to develop our operations

1.

Connect people and strategy to achieve our purpose



Managing uncertainty

Can decide and act with an incomplete picture. Operate effectively even when the way forward is not clear.

Think strategically

Anticipate future trends and their implications. Develop credible future scenarios.

Drive purpose and engagement

Communicate the purpose in a way that enables commitment and that everyone can relate to.

Build effective teams

Establish common goals and a shared mindset. Foster open dialogue and collaboration in the team and across teams.

2.

Accelerate learning to use our full potential



Business knowledge

Use understanding of business and the marketplace to achieve the organisation's goals.

Develop and attract talent

Develop self and others through coaching, feedback, visibility and challenges. Find the right talent to meet the company's needs.

Demonstrate self-awareness

Reflect on own behaviour and influence on others. Proactively request feedback to improve self-awareness.

3.

Drive innovation to develop our business



Explore and learn

Learn by exploring and testing, learn from both successes and failures.

Create results

Be persistent in achieving our goals despite obstacles and setbacks.

Facilitate innovation process

Drive the process from idea to practice, encourage diverse thinking.

Customer focus

Build strong customer relationships and customer knowledge.



Leadership for success

As managers, we make a difference. We contribute to Forsmark's and Ringhals' success by strengthening our shared values – our culture – so that it is characterised by mutual trust and a strong belief in each others' ability to achieve.

We managers participate in our employees' daily work, and we know that we influence them through our way of being and behaving. This means caring, delivering on our promises and taking the consequences of our decisions and priorities for change and development. We listen, learn and act as leaders by being clear, visible and courageous every day.

I am clear

As a leader, I am clear in my communication and in my responsibility for our colleagues and operations. I am attentive, and make sure the people I work with understand what I expect from them and what I hold them accountable for. I run operations together with my team on the basis of Forsmark's and Ringhals' requirements and strategic goals.

I am visible

In my leadership I set priorities, make decisions and delegate to give other people the opportunity to take responsibility. I set clear and ambitious targets and I support, guide and follow up what we do. Our people create the results, and I am present and accessible and give both recognition and constructive criticism. I am genuinely interested in my employees and what motivates them. I am visible through the way I lead others and the results we deliver.

I am courageous

By questioning and trying to find new ways of doing things, I strive continuously to improve. A large part of this is supporting initiatives which are taken and enabling the exchange of experiences and efficient ways of working. I do not hesitate to take decisions and intervene in challenging situations. I question with respect, I am open to feedback and want to develop as a leader all the time.



Error prevention procedures

– why, when and how

The rules for protective equipment vary between Forsmark and Ringhals. Be aware of which equipment is required in the area in which you are located and for the work you are going to perform. If you are unsure, talk to your supervisor.



How is safety affected?

Errors are often due a combination of human, technological and organisational factors. Understanding and taking account of this is an important part of our safety work. It is about human behavioural patterns and how people behave in different situations. Human behaviour is based on the individual's knowledge and skills, and the surroundings/culture with which the individual interacts. Together with existing governance, this creates the conditions required to act in the correct manner in different situations and to increase motivation and performance.

Basic work method for avoiding incorrect actions

Errors sometimes occur due to different types of incorrect actions. It could be mistakes in communication, stress or forgetfulness which lead to unnecessary and perhaps serious consequences for people and plants. By using a number of simple error prevention procedures in our work we can keep the risk of errors to a minimum.

STARC - our approach

STARC can be seen as an approach that is basically about your attitude and behaviour, what you are willing to do and comply with. Error prevention procedures have their origins in STARC and support the approach prescribed in STARC.

Stop - take the time you need.

Think - question and examine.

Act - do the job properly.

Reflect - was it done correctly or not?

Communicate - speak with each other, debrief.



Working at Forsmark and Ringhals

When working at Forsmark and Ringhals you are responsible for trying to anticipate situations that can lead to disturbances or errors. You are also responsible for using suitable methods in your work.

These methods are important tools and offer an important support in your work. The error prevention procedures can be divided into two groups, fundamental and situational.

The fundamental procedures are regularly used for all kinds of activities regardless of risk or complexity. These methods work as a basis for daily operations. When these fundamental work practices are used, they help to take control over the activities regardless of whether the individual activities are deemed to be a risk or not.

To complement the fundamental practices, there are methods called situational work practices. These situational practices are used in different ways depending on the risk and complexity of the activities, how often they are carried out, how much experience there is of them, etc.

Fundamental methods

- Questioning attitude
- Self-inspection
- Use of instructions and compliance
- Secure communication
- Utilising experience

Situational practices

- Pre-Job Briefing (PJB)
- Post-Job Debrief (PJD)
- Peer checking
- Independent verification
- Workplace coaching (WPC)

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Communication

- Eliminate distractions/disruptive situations
- If possible, make eye contact
- Identify sender and recipient
- Express yourself clearly and concisely
- Use accepted nomenclature/designation
- Spell out when letters/numbers are combined
- Check that the recipient has understood
- Acknowledgement

Every day, every shift, every job

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Work preparation - Pre-job Briefing

- Is the task understood? (Limitations)
- What is the expected outcome?
- Are the roles clear?
- Are there parallel activities/other work that may be affected/disrupt?
- What's at stake?
- What ALARA viewpoints/environmental considerations are there?
- Personal safety?
- Are the instructions clear, understood and suitable for use?
- What do we do if something goes wrong?
- Questions, please! Objections?

Every day, every shift, every job

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Sources of error

- Being in rush
- Disturbance/interruption
- Tiredness/Heavy workload
- Inexperienced/lack of knowledge
- Complacency
- Lack of communication
- Stress
- Uncertainty/anxiety
- Poor resource planning
- Inattentiveness
- Working alone
- Attitudes

Every day, every shift, every job

VATTENFALL

Spelling out letters

Alpha	India	Quebec	Yankee
Bravo	Juliet	Romeo	Zulu
Charlie	Kilo	Sierra	
Delta	Lima	Tango	
Echo	Mike	Uniform	
Foxtrot	November	Victor	
Golf	Oscar	Whiskey	
Hotel	Papa	X-ray	

Every day, every shift, every job

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FIVE steps – IN ADVANCE

Ask these questions:

- Have you done this before?
- Are there any critical stages?
- What mistakes can we make?
Which sources of error may occur?
- What is the worst that can happen?
To me? To others? To equipment or the plant?
- What can we do to avoid/prevent errors?
What tools do we have?

Every day, every shift, every job

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STARC 10 aids

- Questioning attitude – Stop if you are unsure
- Self-inspection
- Secure communication
- Use of instructions and compliance
- Utilising experience
- Workplace coaching
- Pre-Job Briefing – Work review
- Post-Job Debrief – Feedback after work completed
- Peer checking
- Independent verification

Every day, every shift, every job

The error prevention procedures provide good support. By using them, you reduce the risk of errors occurring. A summary is available on the laminated reminder cards, which you can easily carry with you and have to hand in your day-to-day work.



Questioning attitude - Stop if you are unsure

Why should I have a questioning attitude?

A questioning attitude should be used to safeguard nuclear safety by challenging pre-conceptions and assumptions. By constantly reviewing that you have the correct information, you create the conditions to prevent situations that can lead to errors, and you create the conditions for completing the job safely. If you don't have the correct conditions in which to perform the task, stop work. Then discuss with your manager/supervisor how deficiencies can be remedied to allow you to continue working.

When should I have a questioning attitude?

Everyone needs to have a questioning attitude. We help each other to ensure that we have the right conditions to carry out the work in a safe manner with the correct quality. Maintaining a questioning attitude may be hard if you are very much involved or very comfortable with what you do. Encourage others to question what you do. If you are unsure, you must say so and ask for clarification. It is never too late to ask a question even if it means interrupting work.

How do I demonstrate a questioning attitude?

- Approach every new task with vigilance
- Be aware of when things do not feel right
- Ask questions until you fully understand what you have to do. Do not make assumptions - take nothing for granted
- Be open and receptive when challenged by others

Self-inspection

Why should I use self-inspection?

You should never take anything for granted, but rather ensure at every stage that all work performed is carried out correctly and does not contain errors or deficiencies when it is passed on.

When should I use self-inspection?

Self-inspection must be carried out for each task.

Situations where it is especially important to focus on self-inspection are:

- Routine but critical tasks - you are so used to performing the task that it has become routine, which increases the risk of excessive self-confidence.
- Time pressure - you are in a hurry.
- Interrupted task - your thought process is interrupted.
- Difficult task - for example, an instruction with a lot of information for each step can make you lose track of where you are or accidentally skip a step.
- Sending emails/documents - read through and check before you send them, is it the right information for the right person?

How should I use self-inspection?

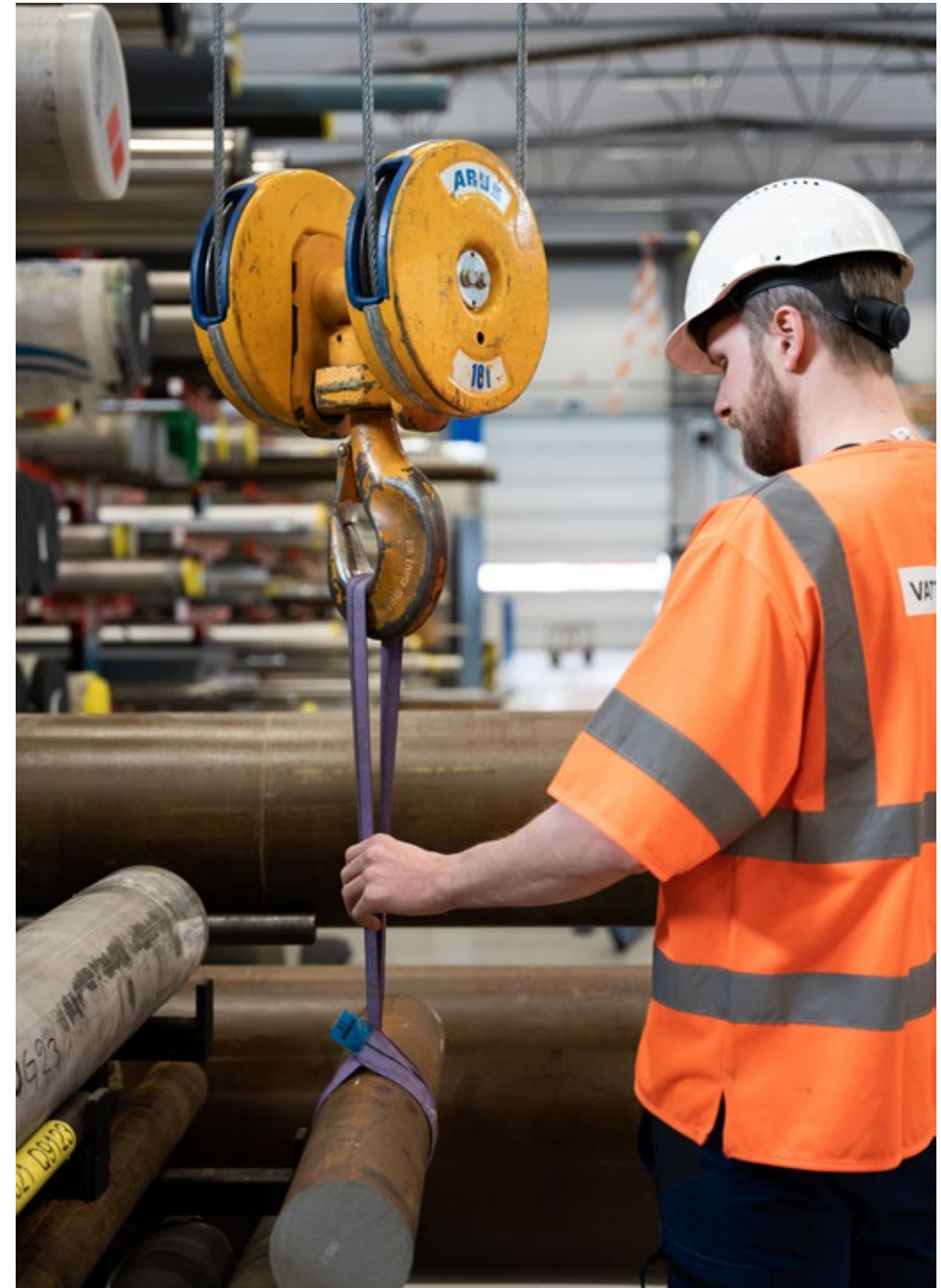
Self-inspection means that you think and act in a certain way to boost your attention to detail at a specific time before, during and after a task is performed.

For example:

- That I am properly prepared
- That it is carried out correctly
- Inspect, review, test
- Was the result as expected?
- That the equipment you are going to use is in working condition

Specific operational measures

1. Verify that you have the correct object by reading the written procedure out loud and physically touching or pointing at the object (maintain contact).
2. Perform the measure without breaking physical contact.
3. Verify that the outcome was according to your expectations.





Use of instructions and compliance

Why should I use and follow instructions?

Always follow the instructions in force, but do so with reflection. Experience has shown that an instruction drawn up in a conscious and careful process is better than a course of action without a written procedure. If there is a problem applying instructions, documented deviation management is utilised, which ensures that a temporary and planned departure from current rules will be assessed and documented. If the instructions are not used, this can lead to serious consequences.

When should I use and follow instructions?

Written procedures must always be used and followed. Supervisors/authors must be notified of any identified deficiencies in the instructions.

How should I use and follow instructions?

Make sure you have the most up-to-date copy available. The signing of operating instructions is used when using a 'step-by-step' instruction, as a way of preventing an instruction step being missed or repeated.

The signing procedure to be used is conducted in three steps:

1. Read through the entire instruction step so that you understand what to do.
2. Carry out the instruction step as it is written.
3. Make a note using a signature, initials or similar to indicate that this step has been completed.

It is important that the instruction step is not signed until the measure has been carried out. A signed but non-executed instruction step can easily be perceived as carried out if one is disturbed, for instance by a phone call.

Effective communication

Why should I use effective communication?

Effective communication should be used in order to avoid errors based on unclear communication. The method supports clear, simple and error-free communication. The purpose is to ensure that the recipient correctly understands the message communicated.

Effective communication is characterised by:

- use of names
- repetition of general information
- exact repetition of names and data
- use of the phonetic alphabet

When should I use effective communication?

The effective communication technique should be used to transfer important information where a misunderstanding could lead to errors. The method should be used not only on the telephone or other telecommunication channels but also for face-to-face communication.

Here are some examples of when to use the method:

- repetition of decisions made at meetings
- transfer of information for important meter readings or conditions
- operating or testing of safety objects
- communicating information from printed instructions
- whenever required by instructions or work documents

How should I use secure communication/ three-way communication?

I am clear in my communication and particular that others understand what I want to convey. I listen to others and if I don't understand, I check by asking questions.

Secure communication, for instance three-way communication, is a technique that is used when placing orders. It means that the sender sends a message which is repeated by the message recipient and confirmed as correct by the sender. Then feedback is provided that the measure has been carried out.



Phonetic alphabet

The phonetic alphabet should be used when there is a need to spell out information. It should be used for all abbreviations, for instance: 'Start cooling water pump Whiskey Bravo One' (WB1).

If it is totally clear that the abbreviation cannot be misunderstood, there is no need for spelling, but the recipient will always understand spelled abbreviations better, especially in noisy environments. Compare, for example, the usual pronunciation of 'WB1' and 'WD1' with 'Whiskey Bravo One' and 'Whiskey Delta One'.

Clear numbering

This method should be used for verbal numerical information where, for example, 16 should be pronounced as 'One Six' and 60 as 'Six Zero'.



Utilising experience

Why should I ask for operating experience?

The exchange of experiences is a valuable tool in preventing the repetition of undesired incidents and in making available knowledge of situations where there is a likelihood that errors may occur. The exchange of experiences is about learning from your own and others' experiences and always reporting incidents and mistakes that almost occurred, to allow others to learn from them. Positive experiences should also be reviewed.

When should I use operating experience?

The exchange of operating experiences should be considered prior to all work tasks.

Use information from the exchange of experiences process, for example with:

- FIVE steps - IN ADVANCE
- PJB
- Coaching
- Project work
- Preparation of work orders

How do I use the exchange of experiences?

The exchange of experiences can take many forms; it can be anything from formal reviews of incidents or a quick exchange just prior to a Pre-Job Briefing to an informal briefing with colleagues who are going to perform a similar task to the one you have just done.

Experiences can be gathered from:

- PJD
- Your own and others' experiences
- Forsmark/Ringhals ERF page on the intranet
- ERFKA/Avärs
- WANO database on the intranet
- Norderf

Pre-Job Briefing (PJB)

Why should I conduct a PJB?

A Pre-Job Briefing is an open dialogue where the work to be carried out is reviewed. The purpose is to ensure that we focus on the task and are prepared for the job, so as to be able to anticipate problems and prevent errors during work.

When should I use a PJB?

A PJB must be conducted for jobs that may result in significant consequences if they are not carried out properly.

Examples of when a PJB should be conducted:

- complicated tasks
- the first time a task is performed or work carried out infrequently
- tasks involving a number of different work groups
- when required, for instance by an instruction or work request
- when anyone involved requires a PJB
- in connection with hazardous tasks
- work that previously resulted in problems
- close to when the work is to be carried out

How do I conduct a PJB?

It should be a briefing where everyone involved is given the opportunity to ask questions and get information to clarify what has to be done and how it should be done. All questions should be answered.

A PJB should:

- include everyone involved in the task
- be carried out in a suitable environment and led by a supervisor
- be held at a suitable level, based on the extent of the task and employees' previous knowledge
- include a discussion to identify risks and which suitable error prevention procedures should be used and when to use them
- include feedback from exchanges of experiences
- define the different roles and responsibilities



FIVE steps - IN ADVANCE

A short version of a PJB which can easily be conducted just before starting a job is 'FIVE steps - IN ADVANCE'.

1. Have I done this before?
2. Are there any critical stages?
3. What mistakes can I make?
4. What is the worst that can happen?
5. What can I do to avoid and prevent errors?

Post-Job Debrief - PJD

Why should I conduct a Post-Job Debrief (PJD)?

A Post-Job Debrief is a way of learning how to improve an activity before it is done again. It is conducted to discuss what went well and what went wrong with a job.

The aim is to:

- gather experiences, both good and bad
- identify unexpected conditions
- identify signs of error
- identify organisational weaknesses

When should I use a PJD?

- After completing tasks where complications, incidents, errors or problems etc. occurred
- When opportunities for improvements have been identified

How should I conduct a PJD?

A PJD should:

- include everyone who has been involved in the task
- identify what went well and opportunities for improvement
- gather together issues by using available information from fault reporting, databases, individual experiences, etc.
- include an open discussion and allow a questioning attitude
- identify and report all observations, for example, deviations, experiences, risks and near-misses



Ask questions

1. Did anything unusual happen? Was the result as expected?
2. Were the procedure specifications correct? Should the task also be carried out in this way in the future?
3. Was the supervisor aware of the conditions which, if not rectified, could lead to a mistake the next time the task is carried out?
4. Was the planning optimal for reducing the risk of errors?
5. Were the workplace resources and information sufficient?
6. Did we have enough/suitable skills for the job?
7. Were the instructions effective and supportive?
8. Are there any experiences from this job worth passing on to others?
9. Did the supervisor offer the required support and guidance when it was needed?

Peer checking

Why should I perform peer checking?

Carrying out a peer checking step offers a further independent check that the correct measure on the correct object has been performed before you take any action. Peer checking is a technique which entails involving a colleague to observe or check the behaviour of the person carrying out a critical step or a series of critical steps to verify that the job is done correctly.

When should I perform peer checking?

Peer checking must be performed if you feel unsure and need support or when identifying a critical measure, for instance:

- irreversible actions – actions which, if performed incorrectly, could result in injury, plant disruptions or component damage
- complicated instructions – instruction steps with large amounts of information which may lead you to lose track of where you are or accidentally skip a step

How should I perform peer checking?

If the measure to be taken leads to immediate negative consequences if it is carried out incorrectly, peer checking can be performed in the following way:

- The person carrying out the work identifies, through self-inspection, that he/she has located the correct component/sequence
- The peer checks, through self-inspection, that the person carrying out the work has located the correct component/sequence
- The person carrying out the work and the peer agree that they have located the correct component/sequence and what measure should be carried out
- The peer observes the person carrying out the work in advance to confirm that this person carries out the correct measure on the correct component/sequence
- If the measures implemented by the person carrying out the work are inconsistent with the intended action, the peer stops the person carrying out the work
- If the measures implemented by the person carrying out the work are consistent with the intended action, the peer confirms the anticipated outcome for the person carrying out the work.



Independent verification

Why should I perform an independent verification?

Independent verification is a check to make sure that the correct action has been performed on the right components after measures have been carried out. It is performed independently and at separate time to avoid as far as possible one individual being influenced by another.

The procedure is used to obtain an objective assessment of the work, especially where there are high demands for safety or quality.

Independent verification does not replace the verification performed by accredited inspection bodies.

When should I perform an independent verification?

An independent verification is used to check work performed where an error could impair safety and/or result in operational losses.

Examples of when an independent verification should be performed:

- when specified in the work document
- upon preparation prior to and restoration after testing and other actions involving safety systems
- for calculations/assembly documentation
- when creating instructions/reports
- when loading core

How should I perform an independent verification?

An independent verification should only be performed by personnel suitably qualified for the task. The independent verification should be performed separately and at a time other than when the actual task to be verified is being carried out. An independent verification basically entails verifying that each step in an instruction is checked. You start at step 1 and repeat the entire instruction completely independently of the person who performed the task.

- Use self-inspection to verify the correct component independently of the previous person carrying out the work
- Check the as-found condition and status of the component without changing anything
- Document the as-found condition of the component

Notify the supervisor if the condition and status of components does not agree with the instruction.



Workplace coaching

Why should I perform workplace coaching?

We coach each other in our day-to-day work with the aim of constantly improving ourselves, each other and our operations.

Workplace coaching (WPC) entails providing coaching and feedback to colleagues to promote their development and that of the organisation, as well as to identify opportunities for improvement of work conditions (work environment, tools, instructions, etc.) while employees perform their tasks.

Such coaching also offers the opportunity to:

- coach staff in how to use error prevention work methods
- review work packages for work/tasks
- review risk assessments in consultation with employees
- coach staff in how to use correct protective equipment
- strengthen our compliance with standards

When should I perform workplace coaching?

WPC should be performed regularly in order to coach employees and colleagues.

For example:

- outage activities
- infrequently performed tasks
- routine tasks
- hazardous tasks
- education, training
- any activity that can be enhanced by WPC



How should I perform workplace coaching?

Coach:

A coach's most prominent tool is to ask questions, listen and observe.

Consider the following when performing WPC:

- Introduce yourself and explain your purpose for conducting WPC
- Do not take part in the work or become a distraction to those carrying out the task
- You should immediately interrupt the ongoing task if you discover a risk of injury or component damage or a risk for the plant
- Help the employee to reflect over their way of working by asking open questions
- Provide feedback

Coached person:

When being coached, request that:

- the coach is not a distraction or a burden

