FINGRID

FINGRID'S OCCUPATIONAL SAFETY PUBLICATION FOR SERVICE PROVIDERS 2/2014

SAFETY ON THE LINES

WORKING IN TOWERS: CONTRACT TERMS SPECIFIED

page 19

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SAFETY ON THE LINES
Fingrid's occupational safety publication 2/2014

Editor-in-chief
Karri Koskinen | karri.koskinen@fingrid.fi

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www.fingrid.fi
Street address: Läkkisepäntie 21, 00620 Helsinki
Postal address: P.O. Box 530, 00101 Helsinki
Tel.: +358 30 395 5000
Fax: +358 30 395 5196

EDITORIAL

SAFETY IS A FACTOR **IN SUCCESS**

In building the main grid, some hectic stages have been experienced over the years. The major projects at Rauma, Forssa and Anttila are now behind us, but the construction of substation and power lines continues along a broad front. In the second half of 2014, a dozen or so 400 kV substation projects have been at an active stage, and contracts for 400 kV power lines extending more than 400 km are under way as well as a large number of significant 110 kV projects.

The start of new projects has meant much competitive bidding during the year. At the beginning of the year, updated contract terms concerning safety were introduced, in which the framework conditions applicable at our work sites were largely clarified in order to guarantee safe working. As a result of this, the safety level measurements (MVR) at work sites have been more widely introduced.

Fingrid's motto has been that fine promises alone are not enough to provide an advantage in competitive bidding. The key issues that we see as important are defined as requirements for invitation to tender documents, which concern everyone. In the comparison of bids, we take into account as a single element the 'results' of previous projects, which reflect the qualitative fluency of implemented projects in relation to project management, planning, control of subcontractors and suppliers and work site functions. Occupational safety has been highlighted in different objects of assessment chiefly through accidents and safety infringements. In the future in the points system for project assessment, we will emphasise better and more visibly the achievement of safety targets (safety level measurements (MVR) kept, safety plans up-to-date and inductions appropriately taken care of), the reporting of accidents and dangerous situations and the carrying out of safety observations. Extra bonus points have been planned for zero-accident projects.

'Zero accidents' set as Fingrid's target for the construction and maintenance of the grid may seem hard to achieve, when about a million working hours are carried out every year at work sites. Of the projects completed this autumn, however, those at Ulvila, Kristinestad, Ontojoki, Meltaus and Pyhävesi and the Ulvila–Leväsjoki power line site and change of lightning conductor (2011–2014) all passed without any accidents resulting in days lost to illness or injury. Congratulations and thanks for some great safety work!

Keijo Välimaa, Construction Manager
Fingrid Oyj

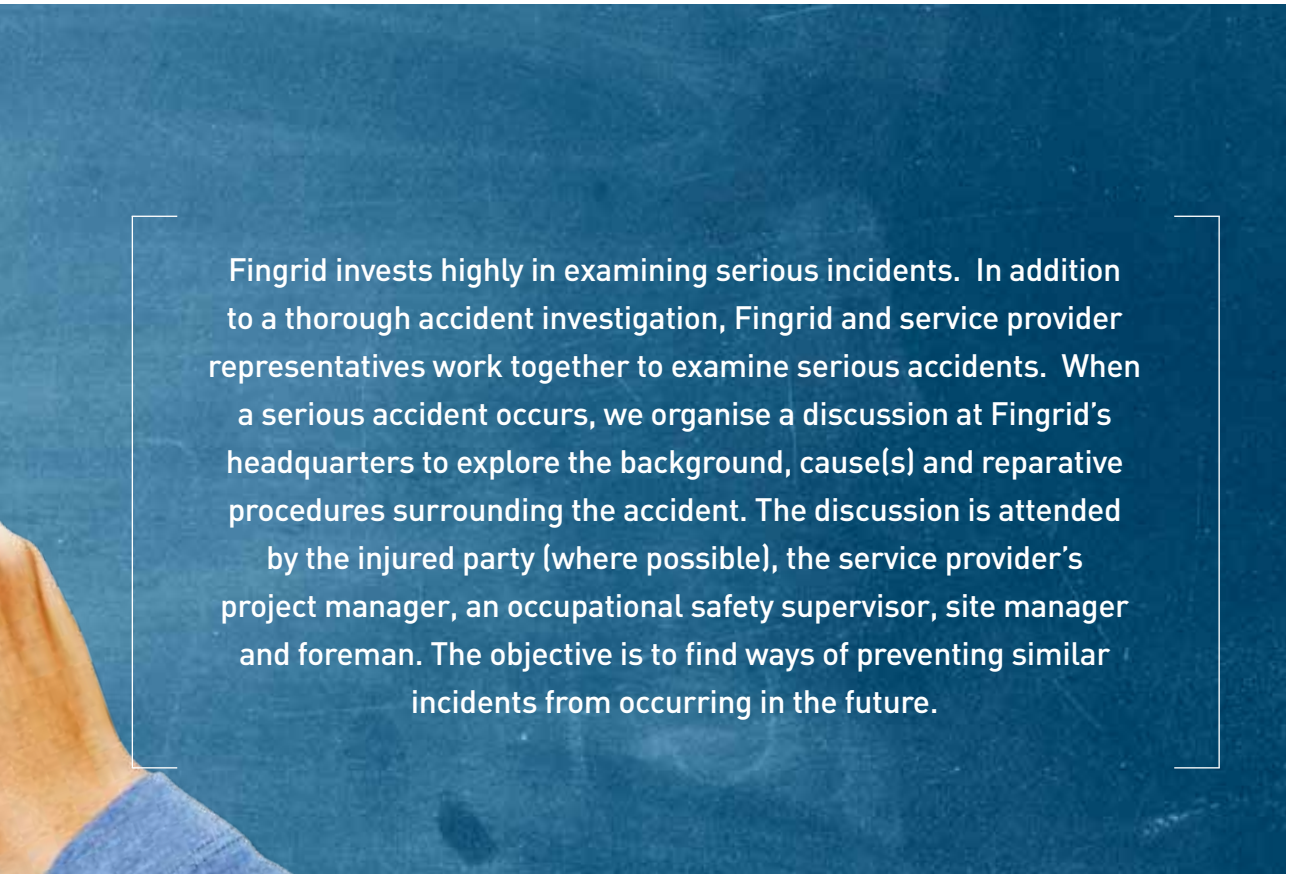
THIS ARTICLE DEALS WITH ACCIDENTS AND DANGEROUS SITUATIONS WHICH HAVE OCCURRED ON FINGRID'S WORK SITES.

Status report concerning incidents and dangerous situations in 2014

Text: Karri Koskinen | Photographs: Heikki Puustinen and iStockphoto

Our goal is zero accidents on Fingrid's sites. The 2014 interim goal for service providers' accident frequency is less than ten incidents per one million working hours. At the moment, it seems that it's possible to reach this goal, which indicates good performance from our service providers. Nevertheless, we should remember that no incident is acceptable. In order for us to achieve our zero-incidents goal, we have to persevere in our efforts to promote occupational safety.

One excellent method for improving occupational safety is to make safety observations and learn from them. Using safety observations, we can harness people working on Fingrid's sites to make observations on danger factors and in doing so, increase awareness of existing risks. Unfortunately, Fingrid only receives a few safety observations from its sites per year. We encourage everyone – both supervisors and workers – to make observations and report them to Fingrid. You can make a safety observation using the dangerous situation notice form.



Fingrid invests highly in examining serious incidents. In addition to a thorough accident investigation, Fingrid and service provider representatives work together to examine serious accidents. When a serious accident occurs, we organise a discussion at Fingrid's headquarters to explore the background, cause(s) and reparative procedures surrounding the accident. The discussion is attended by the injured party (where possible), the service provider's project manager, an occupational safety supervisor, site manager and foreman. The objective is to find ways of preventing similar incidents from occurring in the future.

Accidents on transmission line sites

Five lost-time injuries and one medical treatment injury occurred on transmission line sites in the period from Jan–Oct 2014. Of all Fingrid's sites, transmission line sites saw the most serious accidents. The incident which led to the longest period of absence due to illness was when an employee stumbled next to a rock-boring drill and grabbed the drill bit, injuring his hand. In addition, one employee's foot was badly exposed to the cold on a transmission line site. Absences at transmission line sites were also caused by fingers getting stuck in the moving parts of a ram drill, a beam swinging while fixing bolts, and one person slipped on a crossarm.

16 near misses were reported on transmission line sites. The most serious dangerous situations involved the uncontrolled falling of transmission line towers. During maintenance work to carry out foundation replacement, a 400 kilovolt transmission line tower fell while the line was live. Due to the structure of the tower, the risk of falling was only identified in one direction, and the tower fell on the unsupported side. On an investment site, a tower scheduled for disassembly fell onto a 110 kilovolt line. The incident was caused primarily by deficiencies in planning, in going through the plans with employees and in occupational safety supervision.

Other serious dangerous situations were caused by cranes falling due to a lack of planning and change management. When laying lines, near misses have been caused by a dropped guide wheel and a pilot stay cable snapping overnight. Dangerous situations also arose when a 20 kilovolt cable →

Accidents and near misses (as of 15.11.2014)

	Transmission lines	Substations	Reserve power plants	Management of flora	total
Lost-time injuries (LTI1)	**5**	**2**	**0**	**0**	**7**
Medical treatment injuries	**1**	**2**	**1**	**0**	**4**
Near misses	**16**	**13**	**4**	**1**	**34**

snapped during excavation work and when an excavator hit a low-voltage line. In addition, falling heavy objects, tripping, hot work, faulty tools and working at height have also caused dangerous situations.

Accidents at substations

Two lost-time injuries and two medical treatment injuries occurred at substations in the period between Jan–Oct 2014. Of these, the most serious incident was a medical treatment injury, which could have led to a fatality in the worst case scenario. A device manufacturer representative tested a secondary device and received an electric shock. It is assumed that the employee was shocked through the tip of the measuring device's wire.

Another medical treatment injury occurred when the throttle cable of an all-terrain vehicle was caught while reversing. The ATV tipped over and the employee was taken to hospital to be checked over. The cause of the incident was a throttle cable installed by another employee. The cable became caught when turning the handlebars. What made the incident serious is that some employees were aware of the risk before the accident occurred, but they had failed to report it to their employer.

A faulty working method was the cause of a lost-time injury wherein an employee suffered a bruised ankle. The employee used a battery-powered drill to drill a hole in a bar which was unsupported. As the drill bit took hold, the bar began to spin and hit the employee in the leg.

One incident occurred due to working environment factors: A security guard fell and hurt himself on a slope in the substation area at night.

11 near misses were reported from substations. An employee who had not undergone orientation caused a dangerous situation by cleaning the bucket of an excavator underneath a live 400 kilovolt transmission line. The situation was made especially dangerous by the employee's unawareness of the danger factor and of safety distances.

Faulty machines and equipment at substations also caused some dangerous situations. At one substation, faulty grounding equipment posed a hazard. Luckily, the faulty connector in the grounding rope was observed before anything could happen. The poor condition of a transport pallet led to a forklift overbalancing when the pallet broke while loading the forklift. The bucket on the tines flew off and landed next to the pallet. In addition, a rotating component broke while transporting a transformer, causing a dangerous situation in which there was a minor probability that the transformer could have tipped over. Other danger-

WHAT DID WE LEARN? 10 THINGS WE SHOULD PAY SPECIAL ATTENTION TO IN THE FUTURE:

1. The careful planning of work as well as the management of changes to work, plans and working environment.
2. Identification of danger factors, risk assessment and management.
3. Orientation of employees and communication of work plans to employees.
4. Everyone is obligated to report and, where possible, remove any observed danger factors.
5. Responsibilities should be clear on shared construction sites.
6. Preparation for exceptional situations through methodical planning.
7. Inspection of structures before lifting to prevent objects from falling.
8. Tools and machines must have instructions, they should be in an appropriate condition and must only be repaired and maintained by qualified individuals.
9. Safety when driving at work.
10. Cable channels must be protected.

ous situations were caused by an unprotected cable channel, traffic and driving lanes, and a current transformer which fell over while loading goods.

Accidents at reserve power plants

One medical treatment injury occurred at reserve power plants in the period from Jan–Oct 2014. The incident occurred when an employee injured his hand while drilling a feed-through hole. Only four near misses were reported from reserve power plants. It is positive that a few safety observations came from reserve power plants. The cases relate to e.g. wooden channel covers failing when driven over in a telescopic handler, lights breaking and fire alarms. One serious near miss arose when a gas turbine engine broke during a test run. You can read more about this on page 8. ■

Serious dangerous situation at the Huutokoski reserve power plant

Text: Harri Ollikainen | Photograph: Matti Immonen

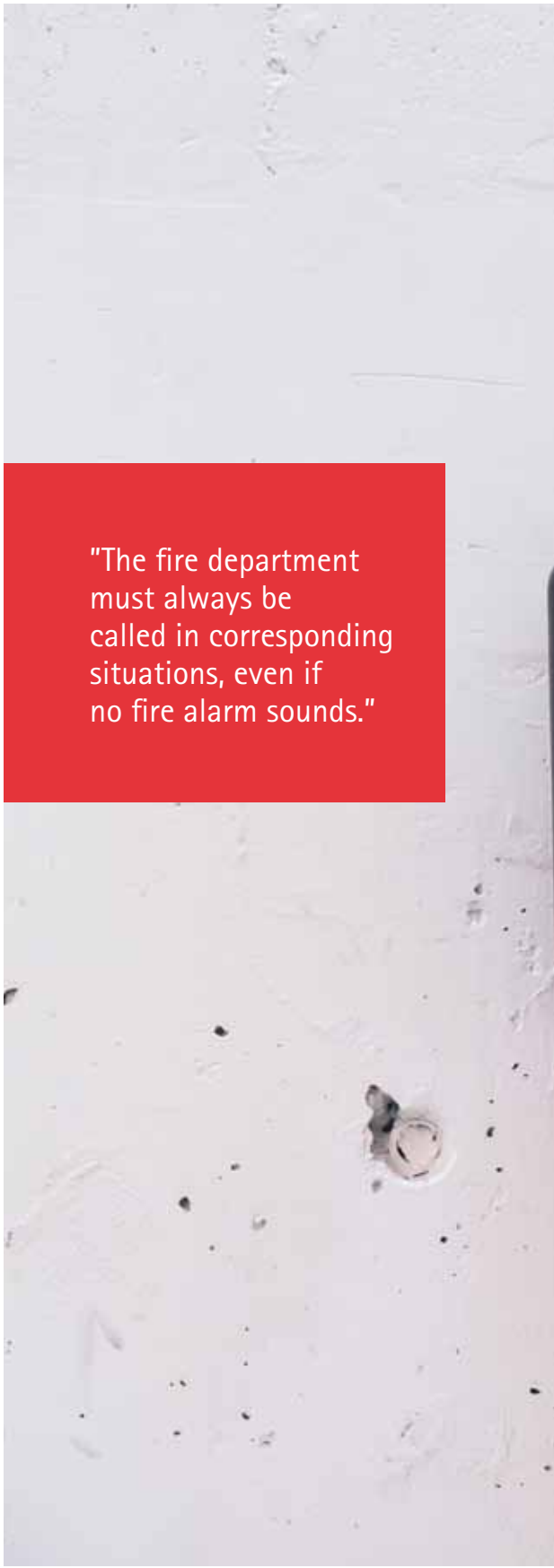
On Tuesday 5.8.2014, test runs were carried out on the newly installed jet engine for gas turbine number 2 at the Huutokoski reserve power plant. The machinery was running on full power at 13:38 when the jet engine's oversheath gave way and a burst of flame erupted from the engine and rapidly began to form smoke. The jet engine was stopped using the control room's emergency stop button and the flames coming from the engine were controlled using a powder fire extinguisher. At the time of the incident, two persons were next to the jet engine and two other persons were approximately 10 metres away in the gas turbine hall. The gas turbine hall filled with smoke in around a minute, after which time the emergency exit signs were no longer visible. The extractors installed in the roof of the gas turbine hall were turned on and personnel carried out follow-up monitoring.

No personal injuries occurred, nothing outside of the hall caught fire, and no material damages were caused outside of the jet engine. The damage to the jet engine was limited to an inspection of its interior and the repair of the combustion chamber oversheath.

What did we learn?

The fire department must always be called in corresponding situations, even if no fire alarm sounds. Employees must always be checked over by a doctor if they are exposed to smoke.

Instructions which pay special attention to safety matters have been drawn up for test runs following jet engine installations. Before test runs, the jet en-



"The fire department must always be called in corresponding situations, even if no fire alarm sounds."

gine maintenance provider's personnel and reserve power plant service provider's personnel should go through the tasks at hand and safety matters.

The use of an optical surface temperature thermometer will be tested in test runs after maintenance in order to check the function of the jet engine.

The number of emergency stop buttons will be increased, and the signs for existing emergency stop buttons will be improved during the 2015 annual maintenance. The safety and signal light system will be renewed in 2015.

The renovation of access routes next to the jet engine will be planned with the help of a consultant in 2014 and 2015.

Attempts will be made to investigate the cause of the damage to the jet engine together with Patria Aviation Oy and other specialists.

Due to high levels of noise during test runs, radio telephones equipped with headphones will be obtained for communication at reserve power plants during 2015. ■

HOW CAN WE AVOID SIMILAR SITUATIONS IN THE FUTURE?

- Persons participating in the supervision of the test run must have completed hot work licence training or training in how to use handheld fire extinguishers.
- Before the test run begins, confirm people's positions, tasks, communications and actions in an emergency situation.
- A separate, 50 kg fire extinguisher will be placed next to the jet engine for test runs following maintenance. Two additional handheld extinguishers will also be placed near the engine.
- Persons should be positioned so that one person monitors the engine, one is next to the emergency stop button and ready to extinguish any possible fires, and one monitors the engine from the control room.
- If the engine has to undergo emergency shutdown using the emergency stop button, the person in the control room will check the situation at visual range and, if necessary, call for additional help.
- The minimum number of personnel required for test runs following maintenance is 3.

Safe **excavation work**

Text: Hannes Maasalo | Photograph: Manja Media Oy

Fingrid invests in safety concerning excavation work and work is under way on a set of safety-related instructions on the topic.

Excavation work is defined in legislation as dangerous work. Each year, 1–3 deaths occur due to collapses at excavation sites. In the 2000s, approximately 50 fatal accidents occurred in the infrastructure sector, of which seven were connected to excavation collapses (TVL 2011). In addition, a far larger number of accidents and dangerous situations occur at excavations each year. Luckily, no such incident has yet occurred on Fingrid's sites, but there have been some near misses. The consequences of a collapse are often serious, and that's why we have decided to invest in excavation safety.

Typical foundation excavation at Fingrid's worksites feature a pillar and guy pit excavation for guy rope towers. Such an excavation is usually less than 2 metres deep and has a base surface area of approximately 5 square metres. Foundation excavations for field towers are slightly larger with a base surface area of aproximately 15 square metres. Free-standing towers' excavations have a base surface area of up to 200 square metres, but are not very deep. In a normal transmission line, the number of these special towers is a maximum of around 10 per cent of the number of guy rope towers.

Foundations for guy rope towers are made of concrete elements and they can be installed fairly quickly. In normal circumstances, foundation

excavations are not kept open for very long; the foundation element is installed in the excavation in around one hour and the foundation of the entire guy rope tower is often finished on the same day. The foundation excavation for a guy rope tower is not left open overnight unless for some pressing reason, such as finding rock, in which case the excavation must be protected with barriers.

At substation work sites, the excavation for scaffolding foundations is largely the same size as the foundation excavation for a guy rope tower. However, the excavated area is often much larger, since the scaffolding is grouped and several foundations are located in the same excavation. The foundations for the terminal towers are comparable to the foundation excavations used for free-standing towers.

What are the most typical dangers which can be encountered by engineers working on excavations at Fingrid sites? The most typical danger is the collapse of the excavation on top of the person standing in it. Collapses can be caused if the slopes of the excavation are too steep for the type of soil. Organic, silty or sandy soils are more likely to collapse than dense moraine. An influx of water can also result in collapse, as can vibrations and other earthworking sites or construction site roads located too near to the excavation. Excavations which are left open can also pose a danger to external passersby if not protected sufficiently with highly visible and sturdy fencing.

Fingrid is working on safety instructions for excavations called "Excavation safety guidelines", which will set out the basics of excavation work: there must be awareness of risk factors relating to excavation work, excavations must be planned in advance and damages resulting from incorrect working methods must be prevented. Once complete, Fingrid's own personnel and all contractors carrying out work for Fingrid will be familiarised with the instructions. **Hannes Maasalo**, **Karri Koskinen**, **Antti Linna**, **Jarmo Naumanen** and **Mikael Wiren** have all participated in drawing up the instructions.

Safety is top priority in Fingrid's excavations! ■

A rule of thumb is that the danger of collapse must always be assessed. All excavations are planned and, if necessary, slopes or supports are constructed.

Occupational safety – **attitudes and transparency**

Text: Tuomas Antikainen | Photographs: Matti Immonen and Merja Tuunanen

Goal Zero, Zero Accidents, No Accident Is Acceptable, Accident-free Working Community, Home Safe and Sound, Target Zero. These are just some examples of slogans used by various companies to communicate an important issue that affects everyone – occupational safety.

The prevention of accidents is a goal we all strive to attain. Significant investments in occupational safety have been made in recent years. At the same time, many companies have noticed that a better occupational safety culture often means a better financial result and publicity. Occupational safety is no longer seen only as an additional cost; on the contrary, it is now considered to be a source of additional value for a company. A correct attitude and transparency are of primary importance when working to further improve occupational safety.

Despite investments and best efforts, accidents at work nevertheless occur across all sectors. Some English studies have divided the causes of accidents at work into three categories:

1. conscious breach of or failure to comply with safety instructions or rules
2. unconscious breach of or failure to comply with safety instructions or rules
3. technical fault in device, machine or tool or equivalent cause.

Research shows that up to 80–90 per cent of accidents at work are a result of failure to comply with

The author is the Transmission Line Director, Electricity Transmission Business at Eltel Networks Oy.

"In order for us to learn from accidents and near misses, incidents should be investigated in a transparent fashion, rather than aiming simply to place blame."

safety instructions, either consciously or unconsciously. Only 10–20 per cent are caused by other factors such as a technical fault in equipment. In the clear majority of cases concerning a failure to comply with instructions, the lack of compliance is deliberate. This may sound like a large share, but I'm sure everyone reading this magazine has broken rules or instructions at some point by speeding, for example, or by crossing the road without using a pedestrian crossing – thereby creating a higher risk of accident.

Technical faults in machines or tools can be prevented through regular inspections, maintenance and user training. The unconscious failure to comply with instructions on the other hand, can be reduced by ensuring that the person carrying out work has sufficient competence (licences, certification, etc.) and has undergone training and orientation for the work and instructions. These issues should be ensured in start-up meetings at the latest. Unconscious breaches of instructions are often caused by a lack of knowledge of either the existence of the instructions, or of their content. It's also important to create a culture of occupational safety in which employees feel confident in admitting that they are unable to carry out a certain task.

Room for improvements in attitude

The greatest challenge is posed by the conscious breach of instructions. In such cases, an individual is aware of the existence and contents of instructions, but for some reason does not comply with them and gives the following example explanations:

- I'm in a rush – I'm on a deadline, I can go home once I've got this done, etc.
- I know what I'm doing, I've done this plenty of times before.
- I don't have time to read the instructions.
- The method I use is safer than the method in the instructions.
- I couldn't find the appropriate tool or equipment, so I'm using this instead.
- The instructions are wrong; you can't work like that.
- The instructions are out of date.

Often the real reason for failure to comply with instructions is attitude. While it is true that instructions could be improved and updated, the correct way to go about this is to correct the instructions and then comply with them. Another alternative is to carry out a risk assessment and continue working if it is safe to do so, and then correct the instructions later on. When following up after such occupational safety breaches, the mistake is often made wherein the instructions are changed or made stricter, but nothing is done about the real cause of the breach; attitude. Stricter instructions have no effect on those who are unwilling to comply with them, but do make it more difficult for the people who had complied with the earlier instructions to carry out their work. Luckily, we have not yet succumbed to this in Finland, and I hope that such a heavy-handed approach will be avoided in the future. We can all work to improve our attitudes. I believe that we can achieve success only through good cooperation between client and contractor, and between management and supervisors.

Another important issue, especially when developing a culture of occupational safety, is transparency – not only when it comes to investigating incidents, but also when distributing information. In order for us to learn from accidents and near misses, incidents should be investigated in a transparent fashion, rather than aiming simply to place blame. Each such incident is an excellent opportunity to learn about and develop occupational safety.

Increasingly transparent distribution of information across the entire sector

The distribution of information is also crucial when it comes to occupational safety issues. In Finland, it seems quite a far-off idea that incidents and near misses experienced by all service providers would be examined regularly in joint meetings and information would be openly distributed to everyone. In practice, this would mean that the client would organise regular meetings with service providers to go through all incidents and serious near misses which have occurred on transmission lines and substations in Finland and other countries that service providers operate in, perhaps four times a year. Does this sound like a radical suggestion? In some countries, this is normal procedure, even in this industry. I believe that at least some of the serious incidents in recent years could have been avoided if the distribution of information had been clearer throughout the sector. Perhaps we are not yet ready for such transparency in Finland, but I think it highly likely that in the future we'll be wondering why we didn't practice such transparency earlier on. ■

Eltel is investing in the development of an occupational safety culture through improvements in attitude and transparency. The basic elements of a good occupational safety culture include e.g.:

- **Commitment to HSE** (Health, Safety and Environment). The company has an HSE policy and management system in place. Goals are set for them and they are monitored. Management safety walks are also carried out.
- **HSE statistics.** Statistics and reporting are transparent and part of daily routine.
- **HSE communication.** Personnel are informed of HSE issues in various formats and forums.
- **Risk assessment.** Project-specific HSEQ plans, risk analyses, orientation.
- **HSE organisation.** A company and project HSE organisation has been appointed, is visible, and everyone is aware of it. Responsibilities are clearly defined.
- **Control and reporting.** Safety reviews, safety walks, danger spot reports.
- **Competence.** The competence of all members of personnel is ensured, maintained, and authorised.
- **HSE instructions.** Safety and environmental instructions, client instructions, device-specific instructions.
- **Occupational healthcare**. Appropriate occupational healthcare has been arranged.
- **Certification.** ISO 9001, ISO 14001, OHSAS 18001.

Updates on the **occupational safety** development project

Text: Karri Koskinen | Photographs: Jari-Pekka Karhu

The occupational safety development project began in 2011 and will continue in 2015. The aim of the project is to improve occupational safety at Fingrid's work sites and to improve its capacity to develop and maintain a high level of occupational safety in investments, maintenance and reserve power plants.

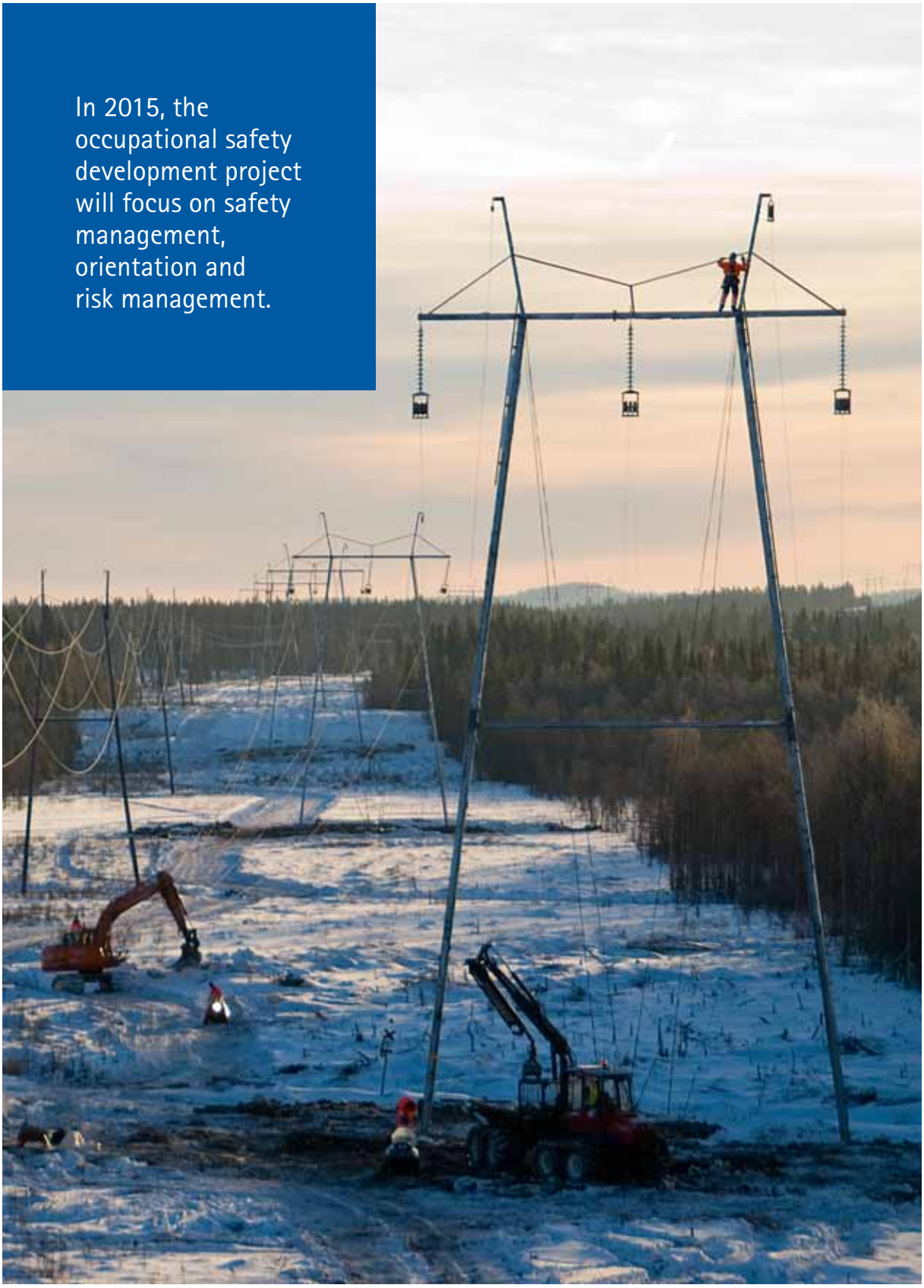
In 2014, the occupational safety development project focused on the development of both Fingrid's and service providers' operating methods, specifying boundary terms and on improving the measurement and monitoring of occupational safety. In 2014, a record 18 component projects have been involved in the development project, of which some will continue into 2015. Component projects have included the further specification of the job description for an occupational safety supervisor, the implementation of a mobile application for MVR (land and water construction) measurements, excavation and lifting safety, the specification and confirmation of qualifications for working at height, and the update of instructions concerning management of charging voltage as well as the compilation of training materials.

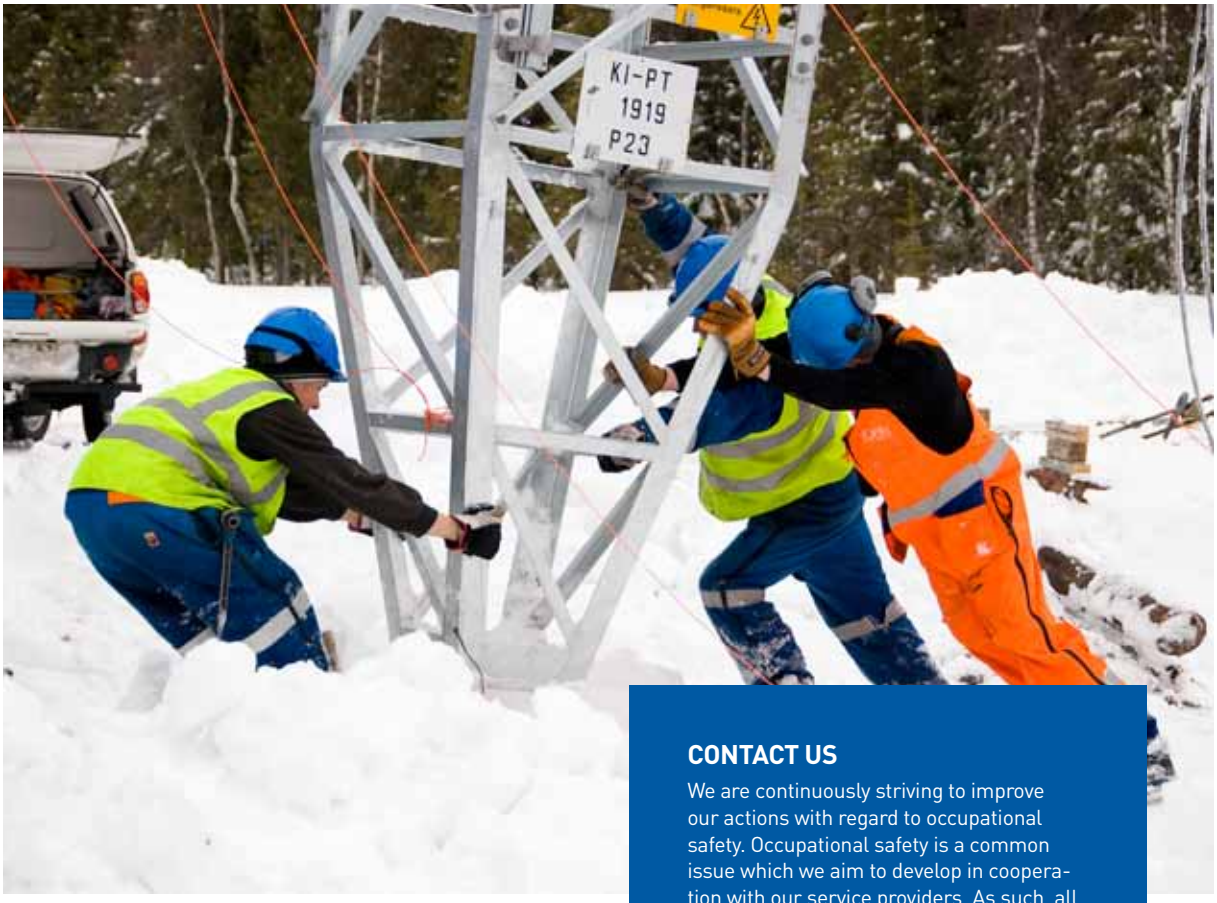
Fingrid has paid attention to particularly dangerous work. Instructions for safety when lifting and excavating have been developed as part of the development project. The objective of the instructions is to create clearer boundary terms for safe work and to act as support for persons carrying out monitoring for Fingrid, such as safety coordinators and local supervisors. The new instructions will be deployed efficiently as part of the 2015 safety management component project. Instructions concerning an increase in additional earthing equipment have been drawn up in order to minimise the risk caused by charging voltages.

Occupational safety supervisors work to improve safety. In 2014, Fingrid has invested in a full-time occupational safety supervisor for two 400 kilovolt and one 110 kilovolt transmission line projects. It is the occupational safety supervisor's task to highlight and maintain a high level of occupational safety. The job description and reporting for occupational safety supervisors were further specified in 2014. Tasks include the completion of weekly MVR measurements, monitoring the site's safety level, encouraging employees to pay attention to safety perspectives, investigation of safety deviations, monitoring site competence and holding safety breaks for personnel. The occupational safety supervisor reports key occupational safety figures to Fingrid on a monthly basis. This practice will be continued in separately selected upcoming projects.

Fingrid's aim is for maintenance monitoring, pro- →

In 2015, the occupational safety development project will focus on safety management, orientation and risk management.





ject management and occupational safety monitoring to be carried out in a modern way through the efficient utilisation of mobile devices. For this reason, one component project is the DPAD project. The project saw the pilot implementation of the T3 reporting system supplied by Nordsafety Oy. The application can be used to create accident and dangerous situation notifications as well as to carry out mobile MVR measurements using a smart phone or tablet. The T3 reporting system is in test use on 12 of Fingrid's sites. The application has been received positively and it has been shown to facilitate the completion and reporting of MVR measurements, among other things.

Occupational safety development project in 2015

In 2015, the occupational safety development project will focus on large entities, such as safety management, orientation and risk management. In addition, the safety of driving at work will also be developed, as will ladder and scaffolding safety, and a tool box talk practice will be implemented on Fingrid's sites. The DPAD project will also continue. The use of the T3 reporting system will be continued and extended to an increasing number of sites. New system features will be developed for reporting and managing key safety figures.

The aim of the safety management component project is to set out clear safety management re-

CONTACT US

We are continuously striving to improve our actions with regard to occupational safety. Occupational safety is a common issue which we aim to develop in cooperation with our service providers. As such, all your feedback is important to us. Tips, ideas on how to improve occupational safety and feedback on the magazine can be sent to Safety Adviser Karri Koskinen. Please don't hesitate to contact us if you have any questions about occupational safety.

▶ **Fingrid Oyj**
Safety Adviser Karri Koskinen
tel. +358 40 631 2152
karri.koskinen@fingrid.fi

quirements for Fingrid's personnel and service providers. The project will see the compilation of occupational safety instructions into a clear entity, with overlaps removed, and the creation of a model for the efficient deployment of safety instructions and rules. High-quality orientation plays an important role in ensuring that everyone working on Fingrid's sites knows the rules. The clarification of orientation and development of orientation practices have been collected into a development project of their own. The aim is to create an online orientation program which would reach all individuals working on Fingrid's sites. Online orientation will deal with e.g. Fingrid's rules, instructions and significant danger factors at transmission line sites, substations and reserve power plants. ■

NEW BOUNDARY TERMS FOR WORKING AT HEIGHT

A work group for working at height compiled clear boundary terms relating to competence tests, first aid skills and health checks for people working in towers. Contract terms concerning safety will be updated with these boundary terms.

First aid training

The supplier must ensure that there is sufficient first aid competence on the site. The capacity to provide first aid must meet at least the following requirements set by the client:

- For each group of 25 employees on site, there must be at least one person who has undergone first aid training EA 1 (2 days) or equivalent first aid training.
- Every person working on the site should have undergone at least emergency first aid training (1 day) or equivalent first aid training.
- Every person working in towers is required to have undergone first aid training EA 1 (2 days) or equivalent first aid training.
- Each person responsible for occupational safety at a work site and the work management must have undergone first aid training EA 1 (2 days) or equivalent first aid training.

Health checks

The supplier must ensure that individuals working in towers are suitable for the work in question, taking individual characteristics into account. The supplier is to ensure that suitability for working in towers is assessed by occupational healthcare with experience in the area. The assessment of posted workers is to be carried out by Finnish occupational healthcare. Suitability assessments should be carried out in accordance with the following requirements:

- work placement inspection
- follow-up medical examination every 3rd year for people under 40 years old
- follow-up medical examination every other year for people over 40 years old.

The supplier and subcontractor must present an occupational healthcare action plan to the client.

Skills test (earthing, use of safety equipment and the retrieval of an injured colleague)

The supplier is to ensure that all individuals working in towers have successfully completed a competence test demonstrating their skills concerning additional earthing for work, the use of safety gear (Turvatikas products, "Always attached" method), and the retrieval of an injured colleague from a height before beginning work in towers. Before working with wooden towers, individuals must complete a skills test demonstrating that they can climb a wooden tower. Skills tests must be completed once a year.

The supplier must appoint a qualified individual to assess skills tests. The content and completion of skills tests must be documented and this documentation must be presented to the client.

The supplier may choose the location of skills tests. The client must be notified of the schedule and location for skills tests in good time. The client has the right to participate in the skills tests if it so wishes.

FINGRID OYJ

P.O. Box 530, FI-00101 Helsinki
Tel. +358 30 395 5000 • Fax +358 30 395 5196 • www.fingrid.fi

Helsinki
Läkkisepäntie 21
FI-00620 Helsinki
Finland
Tel. +358 30 395 5000
Fax +358 30 395 5196

Hämeenlinna
Valvomotie 11
FI-13110 Hämeenlinna
Finland
Tel. +358 30 395 5000
Fax +358 30 395 5336

Oulu
Lentokatu 2
FI-90460 Oulunsalo
Finland
Tel. +358 30 395 5000
Fax + 358 30 395 5711

Petäjävesi
Sähkötie 24
FI-41900 Petäjävesi
Finland
Tel. +358 30 395 5000
Fax +358 30 395 5524

Varkaus
Wredenkatu 2
FI-78250 Varkaus
Finland
Tel. +358 30 395 5000
Fax +358 30 395 5611