

Conditions for undertaking work

at Forsmarks Kraftgrupp AB



Forsmarks Kraftgrupp AB (hereinafter referred to as FKA) has produced this document to enable suppliers to more easily comply with safety and other requirements that are essential to FKA. The instructions and conditions detailed in this document are to be observed by all personnel undertaking work for FKA.

Suppliers shall accept complete responsibility for ensuring that their employees are fully conversant with, and abide by the requirements of this document. The supplier has, in addition to this, a liability to assure – in consultation with the assigned contact person - which other instructions and regulations that are applicable to the scope of work.

Your assigned contact person or the Site Access Administration at FKA will be available to clarify any point that is not readily understood.

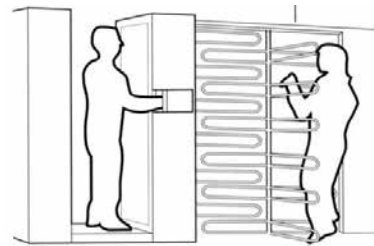
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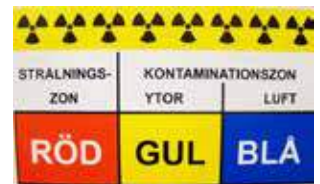
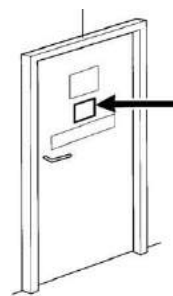
What are controlled areas?

A nuclear power plant is divided into controlled and uncontrolled areas in consideration of the level of radioactivity in the respective areas. Special conditions apply to permit access to the controlled areas.

Each controlled area is separated with gates and step overs and changing to special clothing is required for access. The level of radioactive contamination is monitored in two steps on leaving a controlled area to ensure that contamination is not spread beyond the zone.



The classification of an area with respect to radiation and contamination (= radioactive dirt) is indicated by signs at each door and step-over within the controlled area.



Radiation level is low in areas marked in blue. There are no entry limitations with respect to the radiation environment to these areas. Areas marked in yellow have a higher level of radiation and contamination than blue areas. Yellow areas must be locked. The safety group must provide directions on how to enter. Areas marked in red have the highest level of radiation and contamination. Red areas must be locked. The safety group must provide directions on how to enter.

Preparations for work

The buildings at the site are civil safety objects, and therefore special regulations apply for access to the site. The regulations are based on laws, decrees and directions that are to be followed in order to carry out the operation.

Certain information about you and your company is required before access to the site can be permitted. Provided we get necessary information in due time, passage and access will run simple and smoothly.

You can find information about what to think about and arrange for before coming to perform your work at FKA on our homepage www.vattenfall.se/forsmark under the heading Contractors and Consultants, where you also can find necessary forms. The supplier is responsible to see to that necessary information is valid and up to date.

NOTE! If you need to use chemical products in your assignment you must account for this in advance - please see separate paragraph on page 12.

If you have any questions about access – call our service telephone +46 (0)173-829 16 or send an e-mail to tilltradesfunktionen-gi@forsmark.vattenfall.se

Security clearance

Security clearance and a drug test must be carried out before granting individuals access to FKA's areas.

Completed security clearance forms ('Certificate of completed security assessment', 'Consent to criminal record checks' and 'Application for a criminal records check') must be submitted to FKA Access Function at least six weeks before access is required. Note that the 'Application for a criminal records check' form may not be completed by hand. An Extract from the Swedish Tax Agency's 'Census Data' must be appended to the application.

Foreign personnel

In addition to the above, foreign citizens must submit an individual Security Clearance certificate and extract from their native country's criminal record data to FKA Access Function. The certificate must be issued by the company and presented to FKA. The certificate replaces the summation certificate ('Security checks completion certificate') that is issued for Swedish citizens. The certificate becomes invalid after one year, and has to be renewed and presented to FKA again.

An extract is also required from the home country's criminal record data, the register entry must be no more than six months old. The extract from the home country's criminal record data must be resubmitted within one year for continued access.

For foreign citizens who are permanently resident in Sweden, verification from the Swedish Tax Agency must be enclosed to confirm how long the person has lived in Sweden. If the person has lived permanently in Sweden for five years, it is sufficient to check the Swedish register.

Drug test

A drug test must be performed and a copy of the test results from the medical establishment for each

individual sent to Forsmark's Access Function. The test results must be submitted at least four weeks prior to arrival. The supplier is personally responsible that a drug test is performed at a suitable institution.

A test must be carried out for amphetamines, cannabinoids, opiates and cocaine. A negative test is valid for three years after which a new test must be performed and new test results submitted to FKA.

Application in advance

Everyone that needs access to FKA site has to apply for this in advance. The form is used as a basis for issuing passes. Your assigned contact person or the Site Access Administration at FKA can give you more information. A filled-in form is to be sent to the Site Access Administration at least 4 weeks before requested date of access.

Suppliers are responsible for arranging that their personnel undergo a radiological examination well in advance of the commencement of work. Foreign personnel shall before commencement of work – in order to receive documents for access – provide an approved doctor's certificate.

Foreign personnel from member country of the EU have to provide a radiation passport with details about the dosage received during the current year and the most recent five years. Personnel from country outside of EU have to provide a radiation passport or an extract from the national dose register.

The dosage measured during the period of working shall be entered in the dosage pass of the respective personnel on completion of the work. Please, notify the Dosimetry Department some days prior to your departure in order to make time to register your dosage in the dosage pass.



Foto: Adam Rush

Contract work and hired labour

The supervision of subcontracted labour is the responsibility of the contractor. The assignment shall be performed within the framework of FKA´s management and quality system and in accordance with FKA´s provision and procedures. FKA will be responsible for any hired labour employed by FKA.

Certificate of individual competence is to be provided for everyone who is to work within FKA site. The certificate, in the original, is to be sent to the Site Access Administration at FKA **at least 4 weeks before** arrival for administration and review. On the suppliers' request, the certificate is to be returned after completion of the work.

Personnel at Managers/Supervisors level (Site Managers etc.) shall be able to communicate in written and oral form in Swedish or English.

Clothing lockers are allocated and administered according a set routine by ISS Service Center – telephone +46 (0)173-817 90 or +46 (0)70-104 51 55.

The normal working hours are from 07.15 am to 3.45 pm. Any other working hour is to be ordered by the assigned contact person. Due attention is to be paid to regulations regarding working hours and agreements with the local branches of the respective trade unions.

A time plan shall be drawn up if so required by the parties and in those cases where time is a factor which can affect the cooperation between the contractor and FKA.

Forms and information

A selection of forms and information that can be collected at the homepage www.vattenfall.se/forsmark - (some of the forms and information can be found in English).

Forms:

Anmälan om utbildning/Registration form for education
Framställan om registerkontroll enligt säkerhetskyddslagen/ Statement for register control
Intyg om genomförd säkerhetsbedömning/ Certificate of performed security control
Intyg om narkotikatest/Certificate of performed drug test
Personkompetensbevis/Personal skills certificate
Radiologisk läkarundersökning/hälsodeklaration/Form for Doctor's certificate
Samtycke till registerkontroll/ Permission to perform security clearance

Information:

Drogpolicy/drugs policy
Säkerhetsbedömning av inhyrd personal och entreprenörer/ security clearance of external personnel and entrepreneurs
Instruktion för drogtestning av anlitad extern personal/ Instruction for drug testing hired external personnel
Instruktion för säkerhetsprövning vid Forsmarks Kraftgrupp AB/Security clearance of foreign citizens
Revisionsinformation/Outage information
Vattenfall´s Code of Conduct

Routines for access

People

When the requirements according to "Preparations for work" in page 4 are fulfilled, the person can report to the Main Entrance. A registration of fingerprints and an identification check will be made, therefore be sure to bring **valid identification papers**. The fingerprint is registered on the personal pass to be used as supplementary identification for certain areas. The fingerprint is not stored in any database.

In the Main Entrance you receive a pass with an individual code which functions as identification and pass within FKA areas. To gain access to the controlled area a control of any internal contamination will be done. This is carried out by means of a monitor called Quick Scan. The measurement, which takes about 40 seconds, is done at the Main Entrance upon arrival at FKA. In connection to this, you also receive a personal dosimeter and a key to a cabinet in a locker room.

When you have signed for your pass you may enter FKA Industrial Estate through one of the automatic pass controls.

-	Passes shall always be worn clearly visible when being in FKA areas - indoors as well as outdoors
-	The personal dosimeter functions as visible identification inside controlled areas.
-	Passes are personal and must not be lent to other persons.

An additional control has to be passed if you are to work inside one of the units' area protection. At this control an accurate identification check and a check for prohibited objects (e.g. weapons, explosives, unmarked chemical products). This check is done by X-ray, metal detector and, where appropriate, bodily search. Persons are also randomly picked out to pass an automatic scanning for explosives. An automatic detection to prevent prohibited export of nuclear materials and nuclear waste is done when going out through the area protection.

Passes, dosimeters and keys shall voluntarily be returned at the Main Entrance when the work has been completed and before finally leaving the station. Failure to do so will result in FKA charging the supplier of replacement items.

Vehicles

Vehicles are not permitted to pass through the Main Entrance unless displaying an authorised pass. An occasional pass can be issued for vehicles that require entering the station to either deliver or collect goods.

Vehicles entering and leaving the station, as well as its load, are subject to inspection. Drivers shall contribute to facilitate this inspection.

Guards

As FKA is a civil safety object the site is guarded. A guard has the authority of a police officer within and near to the safety object. This means that everybody has to follow urgent requests from the guards. To not follow the rules for undertaking work at FKA, in every aspect, can imply that permission for access is withdrawn.

Report

Everyone that has been granted access to FKA plant has a duty to report accidents and incidents regarding physical and safety protection. If possible, use the form "Incidentrapporterings fysiskt skydd" to report otherwise report to nearest FKA Manager. In case of acute matters, report directly to the Security Centre (BC).

Information safety

When signing the documents for your access in the Main Entrance, you also sign a secrecy obligation not to communicate any information that you receive during working for FKA to unauthorized persons.

In addition, to be able to study secret information, it is required that the person:

1.	Is considered as being worthy of the information.
2.	Is in need of the information for undertaking the planned work.
3.	Is conversant with the manner in which the information shall be handled.

If anyone comes across an unwatched secret document, the document shall:

1.	Be taken into possession by the person finding the document.
2.	Be placed in a sealed envelope on which shall be entered details regarding the person finding the document and the time and place where the document was found.
3.	The sealed envelope shall then immediately be handed over to either a Security Officer in the vicinity or to the Security personnel at the Main Entrance.

Medical examination

"Doctor's certificate for work with ionizing radiation" is to be handed over upon arrival at FKA.

All personnel working in controlled areas at FKA belong to category A in accordance with regulation SSMFS 2008:51 chapter 4 by the Swedish Radiation Safety Authority (SSM), which means that a radiological medical examination is required.

Suppliers are responsible for ensuring that their personnel undergo a radiological medical examination or a periodical check before commencing work of this type.

A certificate, signed by the doctor "Doctor's certificate for work with ionizing radiation" is to be handed over **upon arrival** at FKA.

Medical certificates issued following a medical examination remains valid for a maximum period of 3 years from the date of issue **provided that** periodic checks are carried out in the intermediary years. Medical certificates issued following a periodic check remains valid for a maximum period of 1 year from the date of issue. Suppliers are responsible for ensuring that medical examinations are repeated at three-year intervals for those personnel who continue to work in controlled areas. Access to controlled areas can not be granted without valid medical certificate.

To accomplish a periodical check, a filled-out form "Health declaration for work with ionizing radiation" is to be handed over to your occupational health department or to the Medical Service that has carried out the medical examination. When the doctor has made his evaluation, a new "Doctor's certificate for work with ionizing radiation" will be sent to the person concerned. That certificate is to be handed over **upon arrival** at FKA.

The result of a medical examination or a periodical check can be stated as being "Approved", "Approved – subject to certain conditions" or "Not approved". An "Approved" result qualifies the person concerned to undertake any form of work in a radiological environment.

Medical examinations can be undertaken by general practitioners, or Doctors engaged in either industrial health care or specialist trade medical units.

The costs of medical examination shall be borne by suppliers. FKA will not make any form of compensation for delays resulting from failure to meet the requirements concerning medical examination. Special forms "Doctor's certificate/Health declaration for work with ionizing radiation" shall be used. Formulas and instructions are available on the homepage of The Swedish Radiation Safety Authority (SSM).

Information regarding this is also available from the Dosimetry Department, phone +46 (0)173-811 90.

Doctor's certificate

<https://www.stralsakerhetsmyndigheten.se/en/publications/forms/medical-certificate--work-involving-ionising-radiation/>

Health declaration

<https://www.stralsakerhetsmyndigheten.se/en/publications/forms/health-declaration--work-involving-ionising-radiation/>

The original or a copy of a certificate confirming that the requirements for medical examination or periodic check have been met can be deposited with the Site Access Administration at FKA before work commences, or, may be shown at the time of providing the documentation for entry in the Central Dosage Register.

Training

FKA will supply training. Information about available training-courses, when they are carried out, the form for notification of training needs, as well as information about if, or to what extent, costs for respective training are compensated, can be found on our homepage. Some training is available interactively through the homepage and those can be done without notification.

The form for notification is to be sent in good time to the Site Access Administration at FKA. Notification is required for all teacher-controlled trainings except for Security and safety – General part. Your contact person will evaluate if registered training needs are relevant to the scope of work. If it's considered relevant you will receive a notice from the Course Administration. If it's considered **not** relevant you will receive a message from your contact person.

Personnel are required to attend and pass the training **Security and safety – General part** (course ID 45235). This training shortly contains radiation protection, fire protection, working environment, environment, information concerning equipment and system failure and security. The date of the approved training Security and safety – General part must not be older than 3 years. In connection to re-training of the General part personnel who is to be working in controlled areas must also attend the training **Security and safety – controlled area** (see below). Re-training of the General part can be made interactively on our homepage <http://skyddsinformation.vattenfall.se>

As from November 1st 2011 there are extended requirements on training for the access to the controlled area. The training **Security and safety – controlled area** (course ID 10397) is required for personnel who earlier did not have access to the controlled area. The training deals with practical training elements.

Dates for the approved training-courses in Security and safety are registered in the Central Dosage Register for the nuclear power plants.

The training Security and safety – General part is normally provided every Tuesday at 8:00 a.m. in the information building at the water tower. Timetables for both courses in Security and safety are available on our homepage.

Supervising personnel/personnel responsible for the works undertaken within controlled areas shall attend the training **Radiation Protection**. This training must have been completed during the most recent 3 year period. Personnel supervising the **hoisting of equipment** and

operators of radio controlled travelling cranes are required to attend special training courses for the work they are to carry out. A specific level of competence is required for controlling the travelling crane in a Reactor Hall. These training courses provide a qualification that is valid for a period of 5 years. The qualification is to be renewed every 5th year.

Personnel working in the areas of **high temperature** are to be in possession of the necessary qualifying certificate. This type of certificate is valid for a period of 5 years. The necessary training can be obtained from the Emergency Services Unit of the local authority in which the supplier is located.

Supervising personnel/personnel responsible for the works undertaken shall be trained in **general work supervision** well in advance of the commencement of work. Such a course must have been completed during the most recent 3 year period.

Do you work at FKA and need access to controlled areas or other working areas where you, in your work, can have an impact on the cleanliness of our systems? Then you have to attend the training **"System cleanliness"**. The training is interactive and is done on our homepage.

If you are to work with hazardous, flammable or explosive chemical products at FKA you have to attend the training **kemiska produkter, grund/chemical products, ground**. This training includes the specific requirements that applies at FKA. The training is to be renewed every third year.



Performance of work

Work shall be carried out according to approved working preparations, working instructions and procedures. For complicated work PJB (Pre Job Briefing) shall be used.

If the work can not be carried out as mentioned above, the work shall be interrupted and the person in charge of the work is to be informed.

In Forsmark we work according to the STARK principle. That means that we have to take the time to call into question and scrutinize. Resolve the task and make sure it was done properly. Last but not least, share your experiences with your supervisor.

General

Regulations for performing work at FKA are always to be observed. Offence against instructions given by personnel at FKA regarding these rules/regulations can imply that permission for access is withdrawn.

FKA is an equal opportunities workplace. Behaviour that is not compatible with that may imply that permission for access is withdrawn.

Work permits or verification

Personnel working in the Forsmark nuclear power stations must be in possession of either a work permit or provide verification that the required conditions for working have been met. In addition to verification that work supervisory training courses have been completed, more extensive instruction regarding either radiation protection or local safety requirements concerning electrical and mechanical work (SAFEM) must be verified before either a work permit or verification can be issued.

Work Supervisors are to be approved by

the Section Managers of FKA Maintenance Department and the personnel responsible for the work are to be approved by the work Supervisor who is the immediate superior.

Work Supervisors are responsible for obtaining copies of the instructions regarding safety or fire protection in cases where these are required due to the work being carried out.

Time report

The FKA form "Tidrapport" shall be used by suppliers who have been contracted to work on an hourly rate basis. The entry of the correct order number is of prime importance. Time reports are to be submitted on a weekly basis and be approved by the assigned contact person. The original copies of time reports are to be enclosed with the suppliers invoices.

In the case of shift work, suppliers undertake to follow the schedule drawn up by FKA and approved by the supplier.





Equipment

Electrical and mechanical equipment to be used in FKA must be inspected before entering a station.

Work equipment

The number of tools and equipment taken in and out must be kept to a minimum. Equipment and tools used in controlled areas are normally provided by FKA. These can be borrowed at one of our active stores and you are personally responsible that they are returned. Tools that are not returned will be charged to the supplier.

Electrical and mechanical equipment owned by suppliers

Tooling and equipment belonging to a supplier shall be clearly marked with the name of the supplier and is to be handled in a way so that it is not unnecessarily contaminated. Cables may need to be plastic-coated and fan-driven equipment may need to be provided with filter.

An inventory of the equipment shall be drawn up in duplicate. One of these is to be sent to the Site Access Administration at FKA in good time before beginning of works. FKA is very restrictive when it comes to importing equipment owned by suppliers. Suppliers making use of their own electrical equipment are also responsible for testing the

equipment both before and during use. The assigned contact person will notify additional requirements regarding the testing of such equipment.

If equipment/tools contains chemicals (oils, cooling/hydraulic fluids, etc) these are to be specified and accounted for – see also the section about “Chemical products” on page 12. This statement is to be attached to the inventory.

Electrical and mechanical equipment shall be inspected by FKA before entering a station.

Mobile telephones/radio equipment

Mobile telephones and radio equipment are prohibited in certain areas within the station. Suitable signs are displayed in the areas concerned.

Mobile telephones with camera are not permitted.

Gas cylinders

Gases are chemical products and should therefore be reported/accounted for – see the section about “Chemicals” on page 12.

The number of gas cylinders in a work area shall not exceed the total number of cylinders required to complete the work. The handling is regulated in the instructions regarding fire protection. You can get more information from your assigned contact person.

Personnel areas, etc

Suppliers shall make special arrangements with FKA for the availability, during the target time, of facilities and services for personnel areas, office accommodation, open and covered storage areas, telephone, fax, hoisting equipment, compressed air, water, electric power, scaffolding and internal transportation.

Work overalls and protection equipment

Protective clothing is provided by FKA when working in controlled areas but otherwise must be provided by the supplier. Protective equipment, e.g. helmets, ear protection etc., is provided by FKA as, and when, necessary. All personnel are required to be clad with the protective clothing etc. as required by the regulations for the area in which they are working.

Helmet must be worn:

1. In controlled areas. Exceptions are signposted.
2. In engineering and utility service rooms in uncontrolled areas, control room is excepted. Other exceptions are signposted.
3. Outside where a need is identified. Such working areas are marked off and signposted.

Compensation for replacing equipment

The costs for replacement of contaminated or misplaced equipment will only be considered in those cases where the required procedure for inventory and marking of items has been carried out and approved by the assigned contact person. Compensation for shoes and clothing that have been contaminated will be made where approved by FKA.





Foto: Elin Bergqvist

Chemical products

The use of all chemical products must be approved by FKA and they must be marked with process marking.

Chemical products includes cleaner, penetration, lubricating agents, products with colouring agents, cutting- and polishing equipment, sealing compounds, cello tape and marker pens etc. Please, check with your assigned contact person which rules apply to your products. Chemical products are normally made available by FKA.

The use of all chemical products must be approved by FKA and they must be marked with process marking. If you need to use chemicals that are not supplied by FKA, then they must be accounted for, well in advance for approval – in certain cases laboratory analysis must be carried out. A report of these chemicals must be forwarded to your assigned contact person or to the site access administration at FKA. Chemical products must be stored in approved storage areas/chemicals cabinets. Liquid chemical products must be in a banded area. Substances that can react with each other, such as strong acids and bases, must be stored separately from each other. Check with your contact person at FKA if you are unsure.

No work may be undertaken with chemical products before a risk assessment has been performed, signed and communicated to the employees.

Marking of your approved chemical products is made by the Central Goods Receiving at FKA

Following process marking of chemical products exists:

1	The product may come into contact with all types of primary systems and process media and may thus be utilized on the inside of the piping system. Residues do not need to be removed.
2	The product may come into contact with all type of primary system and process media and may be utilized on the inside of the primary piping system. Residues must, however, be removed on the inside. Residues do not have to be removed on the outside.
3	The product may come into contact with the outside of the piping system on the primary side. Residues must, however, be removed.
4	The product may be utilized in a controlled area but not in or on the process system.
5	The product may not be utilized on a controlled area.
G	Labeling of Operation-/Bulk chemicals. Laboratory chemicals and Paint products. May only be used in the process environment, in accordance with the signed off requirement specifications and in the laboratories.



Foto: Anna Hammarbäck

Handling of goods

1. Goods may not be placed on areas marked with an X.

2. The Radiation Protection and Safety Department must be notified of any radioactive goods.

3. Chemical products must be marked with FKA process classification.

Incoming goods to FKA must be delivered to the main stores or alternatively, Strandförrådet stores and reported to the respective store's goods reception. This also includes goods which arrive from suppliers after repair work, as well as direct deliveries to external suppliers. Deliveries to external contractors must be registered on arrival and the recipient of the goods must subsequently be contacted for agreement on delivery/collection.

Goods/Material NOT collected/delivered within 30 days will be returned to the sender at the purchaser's expense. Goods reception is to take place no later than the working day after reception at the stores.

Large deliveries that are not suited for intermediate handling and where there is delivery consent, can be delivered directly to the end user (bulk consignments for example). The recipient is always responsible that the goods are reported to the goods reception for registration. Contact: Tel. 81454

Goods that are to be transported inside the nuclear power plant units shall be reloaded to a EUR-pallet. Goods are then transported to the vehicle control building at Forsmark 3 for additional control before further transportation inside the nuclear power plant units.

Bulky goods, which can not be reloaded to a pallet, are to be transported directly to the vehicle control building at Forsmark 3. There, a minute check of vehicle and load is done before permission to enter the perimeter protection is granted.

The Radiation Protection and Safety Department shall be informed in all cases concerning the dispatch and receipt of radioactive items. They are also responsible for handling the

documentation for a consignment. Applications for the transportation of radioactive items must be made well in advance of the required time of transport due to the time required to classify radioactive items and obtain the required packing materials.

When transporting dangerous goods chemical products, class 1-6 and class 8-9, the goods shall be marked with FKA process class and required transport cards are to be enclosed. At coordinated transportation the information on the safety data sheet are to be followed.

Goods for transportation are to be placed in the specified location identified by means of a yellow lined boundary.

Goods shall never be placed in areas marked with a cross.

Goods that are to be taken into a controlled area shall be completely removed from packing materials and be clean and clearly marked with sender and receiver.

Specific instructions apply for transportation of dangerous goods and to the inward and outward transportation of equipment. Application must be made to the Logistic group at ISS, telephone +46 (0)173-829 00 in cases where equipment is to be transported either into or from the unit. Fixed times for opening of gates exists as indicated on notice boards at the gates.

Permission for transporting equipment out from a controlled area must be obtained from the Radiation Protection and Safety Department. The equipment must be decontaminated in cases where permission is refused

Safety measures

If an accident should occur
– phone alarm number
822 22 or 112

Evacuation routes must be
freely accessible at all times.

Fire doors in the boundaries
of fire cells must be kept
closed at all times.

Working environment

Local safety regulations are applied to FKA so as to minimise the risks for accidents and equipment and the possibility of personal injury and damage to the station.

The law regarding working conditions states that employers shall be responsible for the working conditions of their employees. This means that employers are required to ensure that the working conditions of their employees are made as safe as possible. Employers must therefore take all the necessary precautions to prevent accidents and generally protect the health of their employees.

FKA is responsible for consulting with contractors who are contracted to jointly undertake work in the same area to ensure cooperation regarding working conditions. The question of cooperation may be delegated to one of the contractors. In which case these are made in writing and will be applied to the work place.

In the case of building work FKA may delegate coordination of the working conditions to the main contractor who then has to update valid working environment plans.

The responsibility rests with all contractors to take the action necessary to avoid the risk of injury to any of the personnel in the work area. Contractors are also directly responsible for the safety of their own employees. The respective contractors are also responsible for the safety equipment being used by their employees unless alternative arrangements have been made. FKA accepts responsibility for the equipment made available by them.

Contractors having more than five employees working in Forsmark may notify FKA of the name or names of one or more members of his personnel who will act as authorised safety representatives. This information is to be included in the form for advanced application.

Contractors shall immediately inform FKA in the event of an accident occurring or an accident being narrowly avoided. Contractors are also responsible for reporting the incident electronically in ERFKA (Canalen/Säkerhet) or, as an alternative, submit a written report to your assigned contact person at FKA.

Fire protection

Fire and ambulance emergency services are available in Forsmark on a 24 hour basis.

If an accident should occur – phone **alarm number 822 22** (to the Security Centre, BC) or **112** (to the SOS Alarm). The SOS Alarm always gets into contact with the Security Centre in case of alarms to Forsmark.

All personnel either working or visiting Forsmark are required as part of the general fire protection to follow the instructions and regulations for preventing the occurrence of fires.

Evacuation routes must be freely accessible at all times.

Barriers preventing spreading of fire are among the most important security functions at a nuclear power plant. **Therefore it's important that fire doors, located in the boundaries of fire cells, are kept closed at all times.** Other doors should be kept closed wherever possible to prevent the spreading of a fire.

Temporary cables shall be drawn through a wall aperture and not laid freely through a doorway and so prevent the door from being closed.

Contractors are responsible for the cleaning and general tidiness of the work area. Rubbish and waste materials are to be placed in the receptacles provided.

Class 1 and Class 2a in flammable liquids are to be stored and transported in explosion proof containers.



Foto: Elin Bergqvist

As much packing material as possible shall be removed before goods are transported into a building. The amount of flammable materials inside the plant is to be held to a minimum.

Temporary storage of material and equipment must be approved from a fire protection and evacuation point of view. Cameras in the physical protection must not be blocked.

Personnel carrying out work in areas of high temperature including the personnel responsible for the work being undertaken, and the personnel attending to welding and general fire protection, must be in possession of valid High Temperature Work certificates.

Instructions regarding the handling and installation of welding equipment and other pressure vessels shall be duly observed.

The fire prevention supervisor must be contacted for clarification in any case where there is doubt regarding fire protection.

Special instructions apply for welding, grinding and similar work which present fire hazards that are carried out on roof areas.

Radiation protection

All work activity shall be planned and carried out in a manner that will ensure that the personnel are exposed to an absolute minimum of radiation and so keep their radiation dosage as low as possible. The stated regulations and instructions are to be observed by all personnel.

The dosimeters worn by the personnel provide a means of checking and recording the radiation dosage they receive.

The permissible dosage for all personnel is:

However, it's not permitted to plan for a radiation dosage for respective personnel to exceed 10 mSv/year.

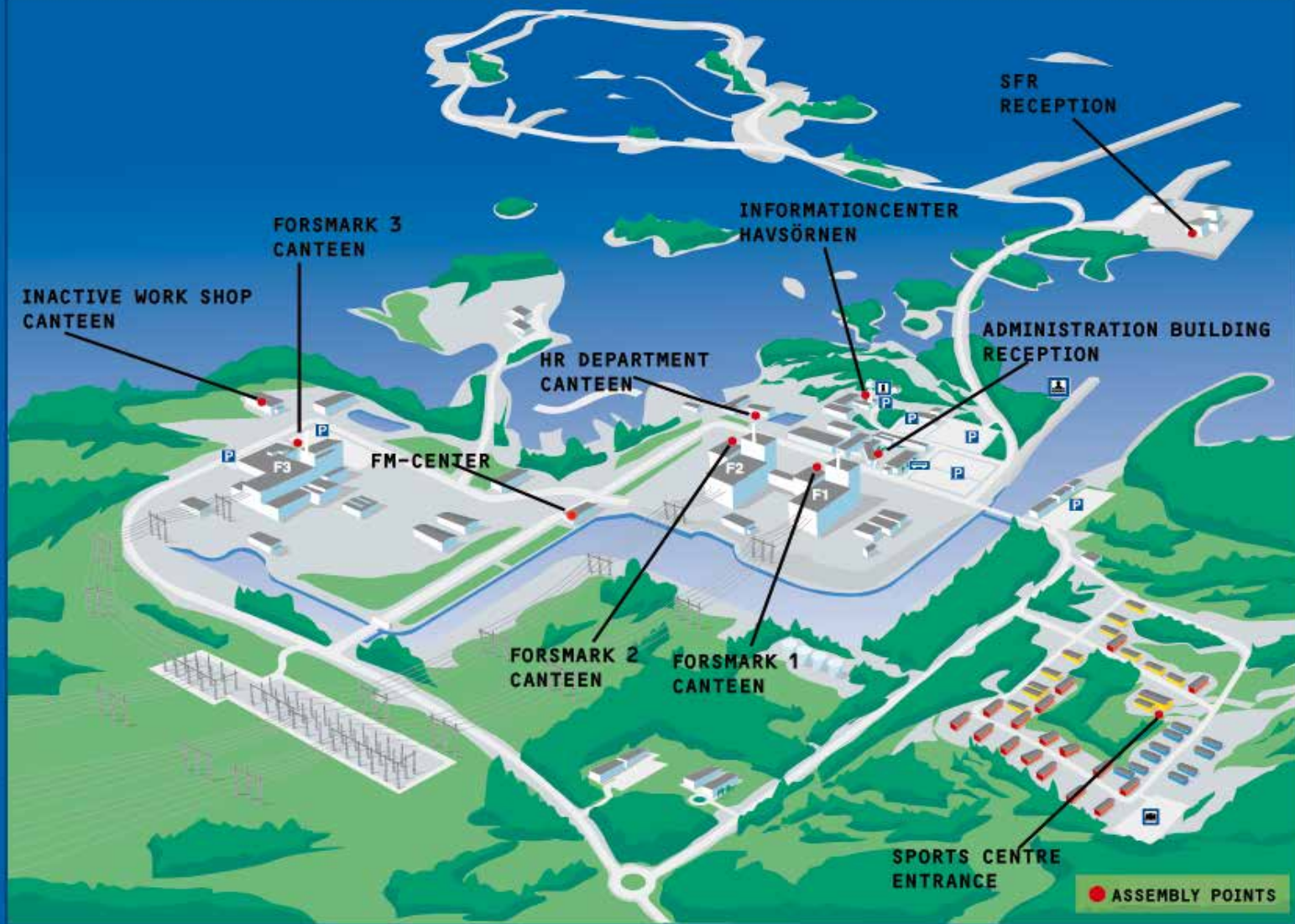
The special conditions detailed in SSMFS 2008:51 apply to women who are either pregnant or breast feeding a baby – for more information contact the Radiation Protection and Safety Department.

Personnel shall always wear a TL type dosimeter when present in a controlled area. Dosimeters are to be worn on the chest. Dosimeters are evaluated once each month. Employers are notified each month regarding the dosage of their employees by means of an extract from the Central Dosage Register.

Dosimeters are to be placed in their respective number location in the dosimeter rack when not in use, e.g. during non-working hours. This is for example, for the purpose of facilitating the replacement of dosimeters at the end of each

An additional and different type of dosimeter providing ~~an~~ **visual** readout of the dosage and with a built-in alarm is issued on entering a controlled area, this is to be worn alongside the TL type dosimeter. The purpose of this dosimeter is to provide a more immediate indication of the dose being received and to enable the total dosage for a specific function or work operation to be established.

The Radiation Protection and Safety Department is to be contacted immediately in case of alarm or that a problem arises with a dosimeter.



Immediate danger

All clear

Warning signals

Audible signals are used to warn personnel of the existence of an emergency situation. Two signals are used in Forsmark, "Immediate danger" and "All clear". Warning signals are tested at three o'clock p.m. on the first Monday in the months of March, June, September and December. The tests are always preceded by a loudspeaker message.

Assembly points

There are ten assembly points in Forsmark that are positioned so that all personnel are close at hand to an assembly point irrespective of where they find themselves on the site.

Forsmark 1 - Canteen
Forsmark 2 - Canteen
Forsmark 3 - Restaurant
Forsmark 3 Non-radioactive workshop - Canteen
FM-center - Canteen
Human Resources Department Offices - Canteen
Administration Building - Reception
Information Building – Lecture hall "Havsörnen"
SKB/SFR (radioactive waste repository)
Building - Reception
Gymnasium - Entrance

Information regarding the incident and the action a person needs to take will be announced at the earliest opportunity following arrival at the assembly point.

Regulations concerning alcohol and narcotics

- FKA reserve the right to perform random tests on all personnel within the site for the presence of alcohol or narcotics in their body.
- Personnel providing a positive result will immediately will be prohibited from undertaking any further work in Forsmark.
- The refusal of an individual to undergo a test will be interpreted as a positive result.
- Suppliers shall accept responsibility for providing corrective measures and any required rehabilitation for their own personnel.
- FKA will reimburse suppliers for the costs concerning these random tests.
- Suppliers bear the expenses for required alcohol and narcotic tests before commencing work.
- Technical safety measures are an extremely important part of the maintenance work in Forsmark. The fact should be acknowledged that those carrying out work "the next day" are a danger not only to themselves but possibly also to their surroundings and may result in the quality of their work being inferior.



Foto: Anna Ek

Environment

The Environmental Management System employed by FKA has been certified in accordance with ISO 14001. FKA has also been approved in regard to EMAS, the EU ordinance concerning the control and revision of the environment.

We are constantly striving to establish improvements in the environmental range. The importance of those persons intending to work in Forsmark being fully conversant with the regulations applicable to their work cannot be overemphasized. Your assigned contact person will provide the required information.

Environmental policy of FKA

A good understanding of the global, regional and local importance of environmental measures strengthens the attitude toward nuclear power.

Consideration must always be given to the effect that work will have on the environment and the economics concerning natural resources and energy.

Work processes shall be so directed that any affect on the environment is kept to an absolute minimum and that measures are introduced to prevent any risk of damage to the environment. The risk of damage that may affect the surroundings must be eliminated to the greatest extent possible.

The production of waste materials shall be kept as small as possible. Consideration shall be given wherever possible to the reuse or recycling of materials.

The established objectives regarding the environment shall be maintained by continually making improvements to those objectives.

The requirements of the law and regulations shall be met with a wide margin.

Suppliers shall apply the same environmental standards as those applied by FKA.

Environmental facts and areas of improvement within the operations shall openly be accounted for.

Consideration for the environment shall always be an integrated part of the activities of FKA and the responsibility for these matters shall lie with the hierarchy of company organisation.



Foto: Anna Ek

Handle with care

Dangerous waste materials, oils, cleaning agents, paints and other chemical based materials shall be handled with great care to ensure that they are not leaked out into drainage systems or onto open ground.

Transport or storage containers for chemicals of any kind shall be handled in such a manner that they do not become damaged. Containers for chemicals and dangerous waste must be clearly marked in regard to their content.

Materials that can be a problem for the environment should neither be overdosed nor spilled.

Waste material/sorting of waste

The waste sorting process and recycling at the environmental stations are an important part in the environmental work at FKA. The amount of material taken into a controlled area shall be kept to an absolute minimum so as to reduce the amount of waste material produced. Unnecessary and unsuitable packing material shall be deposited outside a controlled area.

Waste is to be sorted at the nearest recycling station. The producer of the waste is responsible for the sorting of the waste.

Hazardous waste is to be left at a recycling station, sorted and labelled with a special marking patch. Examples of hazardous waste: chemicals, batteries, oil, paint, smoke alarms, smoke detectors and mercury switches. Chemical waste is to be wrapped in a separate container/packaging (preferably the original container/packaging) marked with

the name of the person who delivered the product, the name of the product and any hazard symbol.

If you have any questions about waste or the sorting of waste:

In not controlled area – contact the Recycling Centre, telephone 814 03.

In controlled area – contact the F1DR Waste Group, telephone 816 62 or the Radiation Protection and Safety Department, telephone 811 45 (F1), 812 45 (F2) or 813 45 (F3).

Report any deficiencies

Any findings of deficiencies, or near-accidents are to be reported immediately to the nearest manager or work supervisor for further documentation in ERFKA. Reports can be made to supervisors, reported environmental representatives and safety representatives employed by contractors who will have undergone special training to enable them to deal with such emergencies. A dangerous situation can also be reported to your FKA contact person.

Environmental, working environmental and safety rounds

Environmental, working environmental and safety rounds are made by FKA for the purpose of discovering conditions that could result in either a dangerous situation or the risk for one occurring.

The residential area environment

All personnel must give due consideration to the environment even during leisure time in the interests of both the environment and the comfort of other people.



Foto: Elin Bergqvist

Accommodation and leisure

Accommodation

A large number of single rooms, a restricted number of double rooms and space for the parking of caravans and campers make up the accommodation facilities in Forsmark. The owners of caravans and campers that are to be parked in the accommodation area must be in possession of a Traffic Licence and Roadworthiness Certificate issued by the transport authority in the relevant country before arrival in Forsmark. An approved three core cable fitted with a 3 pole European plug must be used for connection to the power supply.

The host of the hotel in Forsmark is ISS and bookings are made at ISS Service Center, telephone +46 (0)173-817 90. Accommodation that has been booked but not occupied will be charged for. One week's notice of cancellation is required. Contractors are recommended to book accommodation well in advance of starting work. In case the hotel in Forsmark should be fully booked, accommodation can be offered elsewhere according to instructions from ISS Service Center.

Food

The times of serving meals in the Forsmark personnel restaurants are displayed on local notice boards.

A kiosk for the sale of cigarettes, tobacco, newspapers, bread, milk, etc is located at the reception desk.

Leisure facilities

The exercise and recreation facilities in Forsmark include:

Gymnasium including physical development, table tennis facilities and separate saunas for men and women. *)

Bike rental. *)

Car rental. phone: +46 (0)173-824 64

Car Care Facility *)

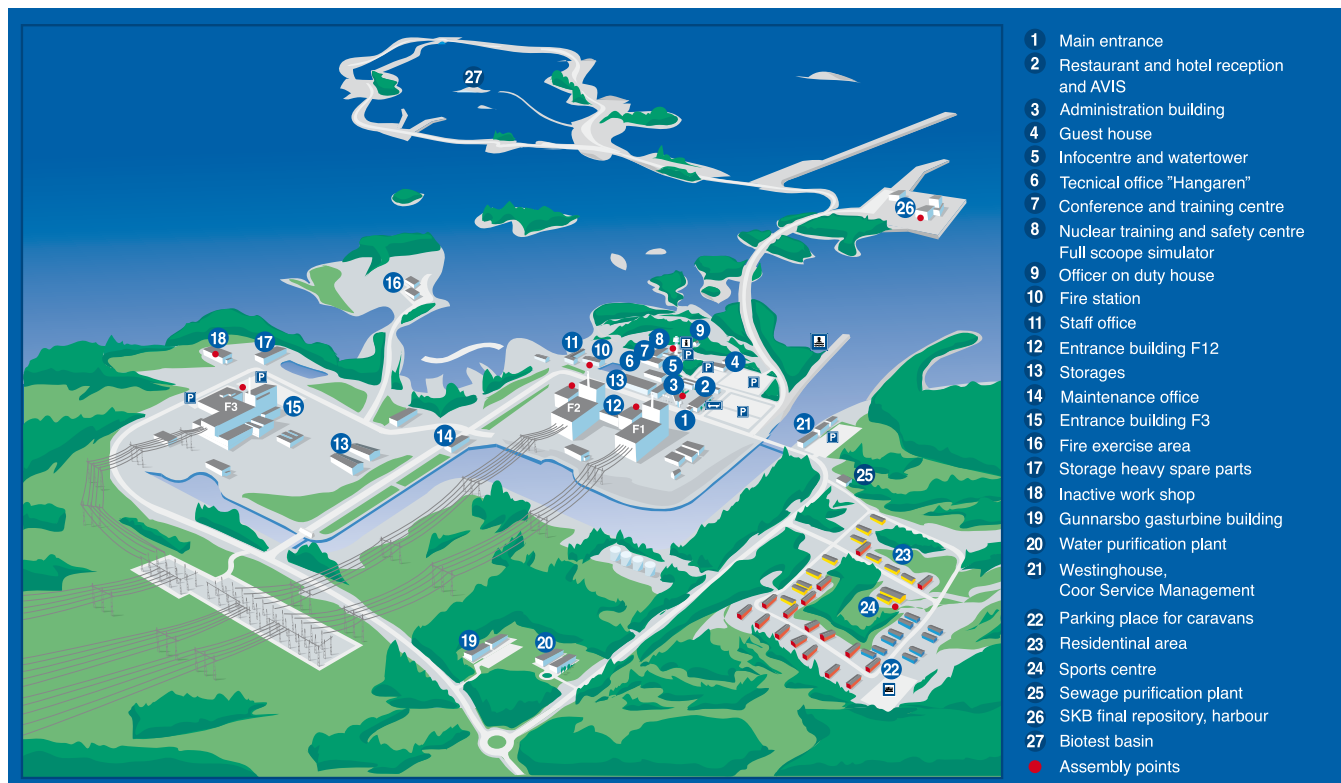
Illuminated running track.

Bathing and sandy beaches with grilling facilities and changing huts.

*) Bookings for these facilities are made at the ISS Service Center, telephone +46 (0)173-817 90.

More information about exercise and recreation facilities in the municipality of Östhammar is available at ISS Service Centre.

Site map



Distances to Forsmark from

Östhammar	25 km
Uppsala	90 km (road 288)
Uppsala	75 km (road 290)
Gävle	80 km
Norrköping	90 km

Bus connections

Forsmark - Gävle	753
Forsmark - Uppsala	751/752
Forsmark - Öregrund	855
Forsmark - Östhammar	859/860

Additional bus connections and further information can be found at www.ul.se

