

Zurich Engineering Inspection Services

1. Safety Rules for where Field Staff are Working in Clients' Premises

Zurich Engineering Inspection Services (ZEIS) is committed to best international standards and practices of health, safety, and environmental matters. The company operates safe systems of work to ensure, so far as is reasonably practical, that its field staff and all other persons who could be affected, are not exposed to hazards which could result in harm or injury. It is the company's policy to promote a positive attitude from staff towards all matters relating to health, safety, and the environment, and to communicate safe practices for ZEIS and client's staff in all our activities.

Purpose of these safety rules

These basic rules are intended to inform clients of the arrangements in place to enable Zurich Engineering Inspection Services field staff to meet their statutory duties for health and safety when carrying out contractual activities on clients' sites. Successful application of this rules document ensures safe examinations take place with minimum disruption to the clients' operations. Clients' co-operation with these safety rules is essential, particularly regarding planning, provision of information and adequate preparation of plant for examination.

Field staff will observe the following basic rules as well as the more specific health and safety policies in Zurich Engineering Inspection Services' health and safety system.

Health and Safety Policy

Zurich Engineering Inspection Services safety policy, together with the organisation and arrangements for implementing this policy are available upon request.

Drug and alcohol abuse

The use of illegal drugs, or misuse of legal drugs including alcohol and other substances, presents serious risk in the workplace, especially where staff are engaged on the safety-critical work of Engineer Surveyors.

Field staff should decline to work with local staff where there is reasonable cause to doubt the individual's ability; such concerns must immediately be brought to the attention of a responsible officer of the client.

Initial contact and departure from premises

Prior to starting work, field staff must always report on arrival to a person in authority. Normal reception facilities will be used to ensure compliance with existing security procedures, e.g., site passes. It is at this stage that specific site-safety requirements, including permit to work systems, personal protective equipment and other necessary safety precautions are established between clients' representatives and Zurich Engineering field staff. Where any doubt exists concerning the adequacy of safety precautions, the field staff should contact their manager for further advice. On completion of their work, the field staff should report back to the person in authority before leaving the premises.





Permits to Work

Field staff shall adhere to clients' permit to work systems, subject to the provision of adequate guidance and instruction on their operation. Conditions and precautions laid down in the permit to work document will be complied with and on completion of the examination activity the work permit will be returned to the authorised person duly completed and signed by the field staff.

Personal protective equipment

Field staff will always use the appropriate personal protective equipment (PPE) for the particular conditions applying at each site.

The following standard PPE is provided by Zurich Engineering Inspection Services and is available for use wherever required. PPE regulations and/or standards apply to some items and the PPE supplied is tested to ensure it meets the requirements of those regulations/standards:

- Head protection (safety helmet)
- Body protection (protective overalls)
- Eye protection (safety goggles and, where spectacles are worn, prescription safety spectacles)
- Foot protection (safety footwear)
- Ear protection (ear plugs or muffs)
- Lung protection (dust masks)
- Working at height protection (safety harness and Lanyard)
- Hand protection (gloves)
- Traffic protection (fluorescent high visibility waistcoats)

If other specialist PPE is required, it should be provided by the client, together with instructions and any necessary training for use. Where the need for this protection is identified but not made available by the client, work should not proceed until adequate protection has been obtained. The Engineer Surveyor will contact their Line Manager in such cases.

Working alone

The client should provide a responsible person to accompany the Zurich Engineering Inspection Services field staff wherever possible. Where it is necessary for the field staff to work alone, they will firstly establish with the person in authority whether any potentially hazardous conditions have been identified, and what precautions will be required in work areas. Field staff shall not proceed where an unsafe situation exists, or could arise, because of lack of co-operation or lack of familiarity with the premises/equipment, until the problem has been discussed with their manager and the hazardous element removed.

Entry into confined spaces, e.g., pits, tanks, and vessels

Before entry into any confined space, field staff will carry out a risk assessment (in accordance with the ZEIS health and safety documentation). If the assessment identifies risks of serious injury from working in the confined space, then S.I. No. 218/2001 - Safety, Health and Welfare At Work (Confined Spaces) Regulations, 2001 apply and an appropriate safe system of work shall be applied including any reasonable measures specified by the client as per the Code of Practice for working in Confined Spaces.

Substances hazardous to health

Substances already on client's premises:

The Safety, Health, and Welfare at Work (Chemical Agents) Regulations 2001 to 2021 together with other regulations for asbestos and lead, require that the client assess the risks to field staff from exposure to hazardous substances at work, and the precautions needed. In particular, the client must warn the field staff if they are liable to be exposed to



any substances for which there is a prescribed 'maximum exposure limit' and 'occupational exposure standard.'

Any control measures, equipment, and facilities (including personal protective equipment) provided to control the risks shall be properly maintained, tested, and examined with suitable records and results made available for examination.

Field staff will comply with clients' precautions, including permits to work and the use of any protective equipment considered appropriate for the duty. In cases where field staff consider the precautions or equipment insufficient for their purposes and the problem cannot be resolved on site, they must contact their manager for further advice. See also paragraph – Personal Protective Equipment.

Substances taken onto the premises by field staff:

Zurich Engineering Inspection Services have assessed the risks to field staff from hazardous substances used for inspection work, which are predominantly risks associated with substances used to perform non-destructive testing (NDT). Material safety data sheets, together with a documented safe system of work for the substances, are available on demand. Field staff will comply with these safe systems of work, including the use of any identified safety equipment, and also adhere to clients' waste disposal procedures where applicable.

Working above ground (at height)

Where it is necessary for the client to provide ladders, these shall be of adequate length and sound construction and the client will have to provide 'footing facilities.' If the ladder has to be used as a working place for inspection purposes, the top of the ladder must be secured (note Engineer Surveyors have ladder ties available that are suitable for this purpose). Ladders must never be placed against moveable items. Where it is necessary for the Engineer Surveyors to use a power-operated mobile elevated work platform (MEWP) to gain access to plant requiring examination, the client must provide the MEWP and an authorised and suitably trained operator.

Operation of power operated MEWPs by Engineer Surveyors will be confined to hoisting and slewing motions only and will not be undertaken unless authorisation and instruction in the operation of the platform have been obtained from the client.

Engineer Surveyors will use a safety harness for carrying out inspections involving climbing to significant heights where no permanent guards or rails are fixed, e.g., tower cranes, radio masts and other high structures.

Where Engineer Surveyors are required to access machinery or plant in the vicinity of an overhead travelling crane, suitable measures shall be taken to ensure that any crane activity does not give rise to danger.

Machinery and guarding

The operation of powered machinery will only be carried out by the Engineer Surveyor if competent to do so and only to the extent necessary to facilitate a thorough examination. This operation will only be undertaken with the prior knowledge and consent of the client. At no time will any machinery be operated without a person situated at the proper control station.

The law permits the removal of guards or fences when it is necessary to carry out an examination of the machine. Where such removal is necessary, the Engineer Surveyor will request the client to remove the guard or fence with the machine stopped.

All machinery examined by the Engineer Surveyor must be provided with adequate facilities for electrical isolation. The surveyor is provided with a 'lock-off' device and will present pro-forma for client authorisation before using the device. Engineer Surveyors will comply with clients' safe systems of work and take precautions to protect clients' employees and other members of the public during lift inspections.

In particular, lift warning notices will be displayed at all landings to indicate that the lift is not available for use and Field Staff will utilise suitable barriers provided by Clients when it is necessary for landing doors to remain open during examinations.



Electrical hazards

Engineer Surveyors will comply with the Safety, Health, and Welfare at Work (General Application) Regulations 2007 Part 3 Electricity. During all inspection activities, Engineer Surveyors will identify components that are likely to be electrically live, and assess the risks associated with working on plant that is electrically energised. Manual working in direct contact with live electrical conductors is not considered necessary for Engineer Surveyors and is prohibited. In circumstances where working adjacent to electrical conductors is necessary, Engineer Surveyors will assess whether isolation is necessary for the safety of themselves and others.

Where it is judged that isolation is not necessary, the Engineer Surveyor will adopt the requirements of Regulation 86. Electrical testing on live circuits will only be carried out using appropriate instruments. Where it is judged that isolation is necessary, the isolation must be secure. Isolation will only be carried out with the consent of the client and must subsequently be proved effective. Should it be necessary to make contact with the electrical conductors for any reason, the conductor must be tested by an effective live line tester.

Engineer Surveyors will use, wherever possible, an ISO lock-off device with the clients' documented approval and a suitable notice posted on the switch gear. Where it is not possible to apply the ISO lock-off device, then isolation can be achieved by the removal of fuse or links subject to proper control procedures. Such control procedures will include the fuses being held in safe keeping, switch/fuse secured, and a notice posted. Engineer Surveyors will advise an authorised person in writing.

In conjunction with the client where appropriate, the Engineer Surveyor will, on completion of the inspection activity:

- check that all tools and instruments are moved.
- replace all covers,
- remove all notices.
- sign off any permits to work.
- re-energise the circuit.
- generally, return to normal service wherever possible.

Testing

Engineer Surveyors will comply with the clients' safe system of work for proof load testing of lifting machines and overpressure testing of pressure systems. In both instances, the Engineer Surveyor will take all reasonable precautions to ensure that his own safety and the safety of others are not endangered by his actions or instructions. In cases where an Engineer Surveyor is requested to witness a proof load test of a lifting machine and it is considered that the conditions for the test are unsatisfactory or potentially dangerous, he will bring this to the attention of the client and consult with their Line Manager before proceeding with the test.

The clients' safe systems of work for the over-pressure testing of pressure systems should evidence cognisance of any relevant guidance (SAFed for example).

Ionising Radiation

Engineer Surveyors attending premises where clients undertake work with ionising radiation must be safeguarded by the implementation of the Ionising Radiation Regulations 2019 (IRR) and the associated Approved Code of Practice.

The IRR are intended to afford protection to persons against ionising radiation from any work activity. In its capacity as an employer, Zurich Engineering Inspection Services, and its Engineer Surveyor employees, will meet specific responsibilities included in the regulations, and will co-operate with the client to achieve full compliance with the regulations.

Local rules prepared for the premises in order to enable the work with ionising radiation to be carried out in compliance with the regulations must be brought to the attention of Zurich Engineering Inspection Services Engineer Surveyors and the rules clearly explained. Ionising radiation dose monitoring for Engineer Surveyors will be undertaken by Zurich Engineering, where considered necessary.

Fire precautions and emergency evacuation

Field staff will comply with the clients' clearly communicated procedures on fire precaution, firefighting, and emergency evacuation.



2. Scope of Inspection

These services are categorised by the following technical disciplines, relating to the relevant regulations:

- Lifting equipment
- Pressure systems
- General work equipment

Inspection services – lifting equipment.

What to expect in a standard inspection contract

- Our engineer surveyor will undertake periodic thorough examinations of the lifting equipment in accordance with Regulation 52 of the Safety, Health, and Welfare at Work (General Application) Regulations 2007.
- These examinations are designed to detect and report safety-related defects resulting from the deterioration of the item in-service and will include functional testing of the item and relevant protective/safety devices.
- These examinations are risk-based, meaning that the scope of the examination will be varied according to an assessment of the health and safety risk. Further dismantlement, additional examination and supplementary tests may be required in order to complete an examination.
- Where additional examinations and or supplementary tests are required, these are not included in the standard fee.
- Zurich will provide reports of thorough examinations in accordance with Regulation 53 of the Safety, Health, and Welfare at Work (General Application) Regulations 2007
- Zurich will bring to attention other defects, for example, obvious deficiencies, and make other pertinent observations in order to discharge our general duty of care, and to add further value.
- Zurich will notify you of situations where we have been unable to undertake or complete thorough examinations for reasons beyond our control and will inform you of the reasons why.
- Zurich will perform the examination of relevant items of lifting equipment that are found at the respective location but had not been included on your inspection Schedule, thereby adding them to the Schedule, but only if expressly instructed by you to do so.
- Where non-Regulation 52 items (such as axle stands and dock levellers) are included in the Schedule, they will be inspected as though they are items of lifting equipment, to the same standard as a Regulation 52 thorough examination.

What not to expect in a standard inspection contract

- Zurich will not undertake the repair or maintenance of items subject to thorough examination as this would contravene the terms of our INAB accreditation.
- Zurich will not undertake the preparation, re-instatement, operation (except the limited operation required to facilitate examination), interim inspection or specialised testing of items subject to thorough examination.
- Zurich will not co-ordinate the provision of services from third parties, even if those services are necessary in order to undertake the thorough examinations.
- Zurich will not undertake a detailed assessment of any item's design with reference to codes, standards, or directives, or of its suitability for intended use in the particular environment or of its remnant life.
- Zurich will not undertake supplementary tests unless agreed in writing as an additional



service (for which a fee would be charged)

- The examination will be focussed on structural components associated with the lifting activity. As such the examination of electrical systems will be limited to functional tests of devices and controls and reporting of patently dangerous wiring defects.

Inspection services – pressure systems

What to expect in a standard inspection contract.

- Our engineer surveyor will undertake periodic examinations of the pressure system in accordance with Regulation 191 in order to discharge your obligations under SI445 of 2012.
- Respective examinations, are designed to assess the effect on safety of any deterioration of the item(s) in-service. Results can be monitored, reported, and benchmarked.
- An examination may include functional tests of relevant protective/safety devices and other periodic tests, such as non-destructive testing (NDT) and hydraulic testing, which we will either undertake ourselves or control in some way.
- Where NDT is required, this is not included in the standard service.
- Zurich will provide reports of examinations in accordance with Regulations 192 of SI 445 of 2012.
- Zurich will bring to your attention other defects, for example, obvious deficiencies, and make other pertinent observations in order to discharge our general duty of care, and to add further value.
- Zurich will notify you of situations where we have been unable to undertake or complete examinations for reasons beyond our control and will inform you of the reasons why.
- Zurich will perform the examination of relevant items of pressure systems that are found at the respective location but had not been included on your inspection Schedule, thereby adding them to the Schedule, but only if expressly instructed by you to do so.
- Where non-Regulation 191 items (such as hot water boilers and un-pressurised storage tanks) are included in the Schedule, and in the absence of any other relevant instruction, they will be inspected according to Zurich generic procedures which are based on reasonably practicable engineering practice.

What not to expect in a standard inspection contract

- Zurich will not undertake an examination of an item if we have reason to believe that it is not suitable.
- Zurich will not undertake the repair or maintenance of items subject to thorough examination as this would contravene the terms of our INAB accreditation.
- Zurich will not undertake the preparation, re-instatement, operation, interim inspection, or specialised testing of items subject to thorough examination.
- Zurich will not co-ordinate the provision of services from third parties even if those services are necessary in order to undertake the thorough examinations.
- Zurich will not undertake a detailed assessment of any item's design with reference to codes, standards, or directives, or of its suitability for intended use in the particular environment or of its remnant life.
- The examination will be focussed on structural components associated with pressure containment. As such the examination of electrical systems will be limited to functional tests of devices and controls and reporting of patently dangerous wiring defects.
- Where a system contains parts subject to pressure and within the scope of SI 445 of 2012 and other parts which are under atmospheric pressure or outside the scope of SI 445 of 2012 (e.g. less than 0.5 bar pressure), then the examination will be limited to those parts within the scope of SI 445 of 2012 unless agreed otherwise.

General Work Equipment



Regulation 30 of the Safety, Health and Welfare at Work (General Application) Regulations 2007

We will inspect the plant based on a risk assessment of the Plant. If the Plant is relatively standard, we will apply reasonable endeavours to inspect the plant applying a standard of reasonably practicable engineering practice to assess the mechanical and structural integrity of the item.

The principal purpose of this inspection is to detect and report deterioration that affects the safety of persons. Types of deterioration include corrosion, erosion, wear, cracking, vibration loosening of fasteners, overheating/burning, impact damage, subsidence, contamination ingress, leaking, vermin attack, etc.

For the avoidance of doubt, anything not expressly set out in the “What is covered in the Scope” column is excluded.

This includes:

- Repair and/or maintenance of any Plant specified in the Schedule.
- Preparation, reinstatement, operation, or interim inspection.
- Detailed assessment of the design of Plant with reference to codes, directives, standards; or the suitability of Plant for intended purpose or its remnant life.
- Examination of the equipment under Regulation 30 will be focussed on the mechanical structure. As such, the examination of electrical systems will be limited to functional tests of devices and controls and reporting of patently dangerous wiring defects.

3. Supplementary Services



You may, under this Contract, wish us to provide Supplementary Services that are excluded from the Scope of Inspection and the Inspection Services as outlined in (b) above. We are able to provide a broad range of Supplementary Services on a consultancy basis provided that:

- It does not breach our INAB accreditation to provide such Supplementary Services to you.
- The Supplementary Services are within our field of technical expertise.
- We have the resources available to provide the Supplementary Services to you at the relevant time.

We are unable to undertake Supplementary Services that would breach our INAB accreditation. For example, we would not be able to design, install, repair, or modify any plant that we inspect.

Examples of Supplementary Services we may be able to provide to help you comply with your legal obligations, or improve your technical standards and customer confidence, include amongst others:

- Testing the installation of equipment
- Assessing your equipment-related risks
- Oversee and certify any repairs or modifications that you need to make to the pressure system to aid compliance with Regulation 190 of SI445 of 2012.
- Provision of specialist NDT services or Remote Visual Inspection services.

Any requests for Supplementary Services must be provided to us in writing. Once we have assessed the Supplementary Services, we will confirm to you in writing whether we are accepting your request. Acceptance of the requested Supplementary Services will be at our sole discretion. Supplementary Services will be quoted for separately and subject to separate terms and conditions of contract (unless we agree in writing with you in advance of delivery of the Supplementary Services that they will be incorporated into this Contract).

Zurich Engineering Inspection Services Ireland Limited

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