

I.N.T. I.R.C.C.S. "G. Pascale Foundation" CROM "Mercogliano Oncological Research Center" Via Ammiraglio Bianco 83013 Mercogliano (AV)	Health and Safety Executive	
INFORMATION DOCUMENT ON	Date	
SPECIFIC RISKS AND PREVENTION AND EMERGENCY	October 2017	Rev 04

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INTERFERENCE and RISKS ASSESSMENT DOCUMENT

MEASURES

Information document on specific workplace risks in the environments and structures of CROM "Mercogliano Oncological Research Center" And related preventive and emergency measures adopted

addressed to contractors, service providers and non-employed workers working within the CROM (Pursuant to art. 26 comma 1 b) D.Lgs. 81/08 s.m.i.)

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INTRODUCTION

The aim of this document is to provide information on the specific risks present in the Mercogliano Oncological Research Center (hereinafter referred to as CROM), managed by IRCCS Tumors Institute of Naples - G. Pascale Foundation , and on the incidence of these risks with respect to staff entrusted with a contract or work contract within the CROM (eg maintenance, cleaning, etc.). It therefore collects the main safety information prepared by CROM pursuant to art. 26 of Legislative Decree 81/08.

It is clear that for the pursuit of the best security conditions in the work entrusted to non-staff members within CROM, it is of primary importance to activate an information flow between the various actors involved: Employee Customer, Employee Of the **Contractor Company**, Responsible of the structures involved in the works / contract, Administrative or technical structure responsible for the management of the contract and the Health and Safety Service.

This document is defined as operational support in the context of this flow of information and fulfills the obligation of the employer to provide self-employed contractors with detailed information on the specific risks existing in the work environments in To which they are intended to operate, and the related preventive and emergency measures adopted in relation to their activities in accordance with Article 26, paragraph 1, letter b).

The informations contained in this document are the fulfillment by the CROM employees of the obligation to cooperate and coordinate preventive and protective measures to eliminate the risks of interference between the work of the various companies involved in the execution of the total work, in the case of multiple companies in the same workplace (Legislative Decree 81/08, Article 26 (2) (b)), a process whose promotion is the responsibility of the employer (D.Lvo 81/08, Art.26 c.3).

This obligation does not extend to the specific risks inherent in the activities of contractors or self-employed workers, as set out in the above c. 3 of art. 26 of D.Lvo 81/08; It has also been considered useful to include some indications of specific risks inherent in activities typically entrusted to contracting firms within CROM: these indications, the result of the experience gained on the subject in the CROM, are only intended as suggestions - not exhaustive of all possible risks inherent in these activities - addressed to employers of self-employed contractors or self-employed workers.

There is talk of interference in the situation where there is a "risky contact" between the customer's and the contractor's staff or between the staff of different companies operating at the same headquarters with different contracts.

Interference risks can then be generated by:

- overlapping of several activities carried out by different contractors;
- presence of the risks from the contractor's own work in the places where the contractor is supposed to operate, in addition to those specific to the contracted activity;
- placing the contractor's work at the workplace of the contractor;
- special execution procedures specifically required by the customer that involve additional risks compared to those specific to the contracted activity

Pursuant to D.Lgs 81/08 and s. And Determination no. 3 of March 5, 2008, issued by the Supervisory Authority on Public Works Contracts, Services and Supplies - "Security in Execution of Services and



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Supplies Contracts. Preparation of the information document on risks assessment (IDR) and determination of the costs of security "- no IDR preparation is foreseen in the case where the contract consists of:

- provision of materials or equipment without installation or works and services which last no longer than two days, provided that they do not pose any risks arising from the presence of carcinogens, biological agents, explosive atmospheres or the presence of particular risks (of which all 'ANNEX XI to Legislative Decree 81/08);
- services for which it is not planned to be executed within the contracting station, meaning 'internally' all the premises / places made available to it for the service, not even its offices;
- services of an intellectual nature, even if carried out at the contracting station;
- contracts falling within the scope of Title IV of Legislative Decree no. 81/08, for which the Security and Coordination Plan is to be drawn up, the interference risk analysis and the estimate of the related costs are contained in the Security Plan And Coordination and therefore, in this case, it does not appear necessary to draft the IDR.

INFORMATION DOCUMENT ON RISKS ASSESSMENT

(IDR)

For each contracted supply of goods and services involving interfering activities, the Customer will provide IDRs with the measures taken to eliminate the risk factors caused by interferences between concurrent activities in the same work environment.

- This document, drawn up pursuant to article 26 of Legislative Decree 81/08, is shared with the Contractor and is attached to the contract of employment or work.
- For all the other cases not covered in the preceding paragraph, which in any case present interference risks, this document is deemed to comply with the provisions of Article 26, paragraph 3 of Legislative Decree 81/08. In such a case, the CROM will make available to non-employees (whatever the title in the company) the necessary devices to protect them from any risks associated with the activities carried out by NORM.
- For works involving the opening of temporary or mobile sites, falling within the scope of Title IV of Legislative Decree 81/08, reference is made to the provisions of the same Decree, including the prior study of security aspects In the design phase, in accordance with the figures provided, and compliance with the same legislation being implemented. In any case, critical safety aspects (eg "interferences") are assessed, with particular reference to site interface areas and normal structure activities.



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Contractors or individual self-employed workers in the disclosure of specific risks related to their business must submit in a timely and formal manner (to the Employer and HSE) any proposals for integration into IDR where they feel that they can better ensure the safety of work, based on their own experience. In no case may any integration be warranted for changes or adjustments to security costs.

PRESENTATION OF DOCUMENTS RELATING TO SECURITY OF WORK

By the contractor / self-employed

For each contract, the contractor is required to prepare security documentation describing the subject matter of the contract, the working phases and the timescales, the machines or equipment, the materials, the workers employed and the working techniques used in order to to highlight the technical and organizational measures to be implemented for the prevention and protection of workers' risks, but also for the protection of third parties, whose presence could result in a negative interaction with the activities carried out.

The contractor's employee must indicate the name of the manager or appointed local contact point for the contract.

This documentation is a binding element in the activities to be carried out, the identification of responsibilities and the assumption of the commitments to protect the health of all those involved in the execution of the work.

The awarding company must, prior to commencement of activities, declare in writing that it has taken a look and has informed its employees of the content of this document.



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1 GENERAL COORDINATION PROCEDURE

This document, prepared by the Health and Safety Service (HSE), is delivered by the CROM to the Legal Representative of the Contractor Company (or self-employed), pursuant to art. 26 of D.Lgs. 81/08 and s., In order to promote co-operation and co-ordination between the parties on the protection of occupational safety and health and to indicate the measures taken to eliminate interference.

The organizational structures responsible for compliance with the regulatory requirements covered by this document are as follows:

- Technical Structures: CS Design and Building Maintenance and Installations (hereinafter referred to as TS) for all maintenance work on both plant and equipment;
- CS Property and Services Management (hereinafter referred to as PSM) for the supply of goods and services (Pavilion, Surveillance, Housekeeping and Refectory etc.) and the Research Directorate for Research Supplies;

It is therefore recommended, for any reference, doubt or necessity on the subject in question, to always refer to the figures indicated.

ANNEX I contains the names and addresses of the RRSP, the Qualified Examiner and all other internal consultants and / or professional figures able to provide safety information.

Where interference was not eliminated by means of organizational measures or other measures taken by the CROM, the cost of the contractor shall be assessed separately.

1.1 COORDINATION RESPONSIBLE FIGURES

The operational figures for the coordination of activities to avoid interference are:

- ***** The external company operator.
- **❖** The Internal Referrer of the Institute and / or the CROM for the given activity.
- **The Head of the Structure of the Ministry of Labor in which the activity takes place.**

For the purpose of this document, the Head of the Structure is understood, unless otherwise stated: The organizational structures responsible for compliance with the regulatory requirements covered by this document are as follows:

- Technical Structures: CS Design and Building Maintenance and Installations (hereinafter referred to as TS) for all maintenance work on both plant and equipment;
- CS Property and Services Management (hereinafter referred to as PSM) for the supply of goods and services (Pavilion, Surveillance, Housekeeping and Mensa etc) and the Research Directorate for Research Supplies;

The figure of the Manager as above identified coincides, in most cases, with that of the Manager or Responsible; For the sole purpose of coordinating the activities of external staff, the function of Manager may, for the aforementioned, be carried out by other professional figures, as this responsibility is limited to alerting external personnel of the presence of risk factors that each worker is Kept to know.



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An **Internal Referent** is the person in charge of a CROM Structure appointed by the Responsible to follow a specific activity involving the presence of external staff.

For the maintenance work, Internal Referrer is always a ST / CROM employee, for supplies of goods and services, an employee of the SC Property and Services Management / CROM, for researching a CS Research Administrator / CROM.

The outsourcer's operator must always be recognizable by means of an identification card and must comply with the instructions and instructions of the referent.

1.2. COORDINATION MODE AND PERIODICITY OF MEETINGS

The coordination between the figures referred to in paragraph 1.1. happens:

- Through the preparation of rules and indications, at the time of writing and formulation of the contract;
- By submitting this document for reporting on its own risks and internal organizational arrangements;
- As expressly provided in IDR, when activities are considered to be interfering with those of the buyer;

For specific organizational arrangements, specific meetings are planned, which may consist of:

- Periodic meetings to assess the quality of the service and / or to check for any safety issues;
- Meetings convened in the event of problems (eg injuries, changes or changes in work, damages of various origins and management of related emergencies etc);
- Communications related to organizational and management changes in workplaces or emergency plans.



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1.3 RELATIONSHIP TYPES BETWEEN CROM AND CONTRACTORS

- external companies with occasional presence of operators
- external companies with continuous presence of operators
- external contractors for the opening of temporary works
- professionals, healthcare or not

In all cases above and at the same time at the beginning of the work to be performed, the Contractor's Operators must notify the Head of the Facility where the intervention is carried out either directly or through the Referent on the presence of external operators and the activity To be carried out, also to acquire any additional specific information useful for the proper and secure performance of the assigned work.

1.3.1 External companies with the presence of their own operators

In the case of companies carrying out their activity at the CROM "one-off":

- the operator appears in the center and requires the presence of the contact person who contacted him;
- the Referent, prior to the beginning of the work, conducts a joint inspection in the work area and illustrates any security related procedures or issues in the area of interest as well as the procedures to be followed to eliminate the interferences risk with other operators companies;
- during the execution of the work, the Referent, as far as competence is concerned, verifies compliance with general or specific security rules in relation to their applicability in the case concerned;
- at the end of the operation, a joint check is carried out to verify **the complete, correct and exhaustive progress of the work**, the restoration of the pre-existing conditions and the absence of elements that could be dangerous for operators and patients.

1.3.2 External companies with the continuous presence of their own operators

In the case of companies with continuous presence of their staff in service at the facility (eg cleaning, catering, etc.), in addition to this document, reference must be made to the specifications, which necessarily includes the description of the working typologies carried out.

Contractor contractors are usually identified as a "Coordinator" responsible for co-ordination with the buyer, or with other contractors in order to eliminate any interference.

The above-mentioned "Coordinators", whose name must be formalized to the Structures referred to in paragraph 1.1 and to the Health and Safety Service, must:

- verify that all the operators involved are wearing the identification mark;
- refer to health and safety issues at HSE;
- for specific work (eg structural or plant modifications, etc.), at the conclusion of the intervention, carry out, in conjunction with a TS referent, an inspection to verify the correct and complete completion of the work and complete restoration of the initial conditions, or that no



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elements have been introduced such as to constitute a danger to workers and users. Any abnormal situations found must be formally reported to the relevant figures (Structure Director, TS, HSE);

• arrange and deliver to the Structures referred to in paragraph 1.1 any documentation of the interventions carried out.

1.3.3 Temporary Shipyards

For works involving the opening of temporary or mobile works, falling within the scope of Title IV of Legislative Decree 81/08, reference is made to the provisions of the same Decree, including the prior study of security aspects in Design phase, in accordance with the figures provided, and compliance with the same legislation being implemented.

HSE must be informed promptly of the opening of yards in order to be able to evaluate any critical aspects of security (eg "interference"), with particular reference to areas between the site and normal activities of the facility.

1.3.4 External professionals working at the Facility

For unstructured staff employed in institutional activity, risk assessments and procedures already in place for the CROM's staff are in place, subject to special procedures provided by any external provider of such staff.

The demonstration of operation and after sales service connected to the supply of presidia and / or equipment, other than cases comparable to mere intellectual performance, shall take place in accordance with the procedures laid down in this document.



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2. INFORMATION ON SPECIFIC WORKING RISKS AND RELATED PREVENTION AND PROTECTION MEASURES

2.0. DESCRIPTION OF THE WORKING ACTIVITY IN CROM



CROM is the acronym for Mercogliano's Oncological Research Center; the establishment and management of the Center is entrusted to the Institute (DGRC n.1630 of 13/10/2006); A Memorandum of Understanding regulates the relations between Campania Region, Province of Avellino and Naples Institute of Tumors.

It is headquartered in Mercogliano (AV) in Via Ammiraglio Bianco in c.d. Building ex-I.P.A.I, which develops on six levels (annexed the planimetric distribution) for a total of 11,846 sqm; The Province of Avellino granted it for free use for ninety-nine years at the Institute.

In keeping with regional planning, the CROM establishes close links and synergies with other public and private health and research facilities and universities, with the aim of developing and implementing common programs.

The work done within the CROM is mainly aimed at research and study for the treatment of tumors.



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Nuclear magnetic resonance spectrometry (NMR)



Radiopharmacy laboratory



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Research activity – Animal Facility









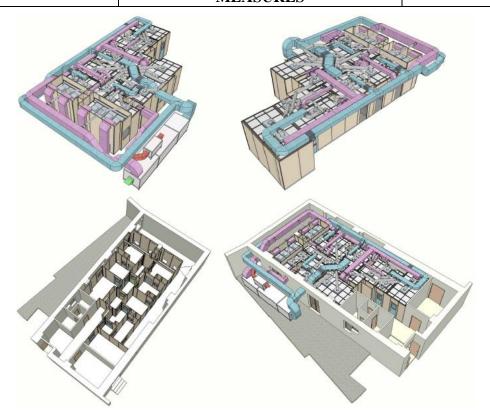
Research activity – Laboratories



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Training activity



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They are also made:

- Specialist exterior performance (diagnostic laboratory for the determination of mutations of EGFR and KRAS)
- Training (Master's Degree and postgraduate courses)
- Administrative management, control and program addressing of activities
- Technical activities related to building maintenance and plant and equipment
- Management of the acquisition of goods and services
- Productive and Experimental Activities of the Radiopharmacy Laboratory with consequent physical surveillance of the radiation protection of the environments, staff and population at radiological risk by means of the Qualified Examiner as established by the legislation in force
- Temporary storage and control of waste disposal.

The esteem of people who attend the areas should therefore consider, in addition to the staff, students, university teachers, users, accompanying persons, visiting researchers and suppliers

Below is a review of the risk factors present in the working environment as a result of the activities of the CROM, where applicable the coordinating provisions of the various activities are indicated.



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2.1 EXPOSURE TO THE BIOLOGICAL AGENTS

The risk from biological agents in the healthcare field is to be assumed to be ubiquitous; In fact, even in laboratory environments, potentially infected organic materials, tissue samples, blood, urine, liquids taken from patients or laboratory animals, etc. are handled. In addition, in some laboratories, cultivated media are used on which can be Proliferated viruses and bacteria

All of these materials can be accidentally traced, on benches, on floors, on equipment, on furnishings and objects in the lab.

As far as extremely rare events are concerned - and the control of CROM operators is ongoing - it is considered appropriate for any user / operator / guest to be aware of it.

2.1.1 Indication of danger of biological risk

The areas and containers inside which materials can be found where the presence of pathogens is found or very likely are identified by a specific billboard.

Access to these areas and / or container handling is reserved for specifically trained and authorized personnel.

The biological risk symbol that may or may not be accompanied by indicative descriptions is as follows.



2.1.2 Prevention measures for the biological risk

This document intends to define brief useful recommendations to contain infections based on available scientific information.

2.1.2.1 Universal precautions

First of all you need to operate your hands constantly and correctly.

Barrier measures must be taken to prevent accidental contact with blood and other biological fluids:

- Use of Personal Protective Devices (DPIs) such as gloves, gloves, overwork, masks, eyeglasses, or visors;
- Proper use and disposal of needles and sharp edges;
- Decontamination of surfaces contaminated with potentially infected biological materials.



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2.1.2.2 Hands cleaning

The hands of health workers are the main vehicle for the transfer of pathogens; Hand washing is the most effective way to limit this transmission and must be:

- before the start of work;
- before wearing the gloves and after removing them;
- before and after the procedures at risk;
- in the case of biological or chemical contamination even suspected.

For further details refer to the provisions of the Hand Hygiene Procedure.

2.1.2.3 Hands care

- nails should be clean, short, clean and free of nail polish;
- the skin of the hands must be kept intact, also using barrier creams;
- do not wear rings, bracelets, watches during work.

For further details refer to the provisions of the Hand Hygiene Procedure.

2.1.2.4 Behavioral rules in case of hands contamination

- wash with water and liquid soap in dispenser for 30 seconds, followed by hand antisepsis with suitable disinfectant products;
- wash with antiseptic in cleansing soap solution for 2 minutes.

For further details refer to the provisions of the Hand Hygiene Procedure.

2.1.2.5 Barrier measures

Gloves

- Must always be worn whenever possible contact with biological material, in cleaning, waste collection;
- Before and after the use of gloves the operator must wash hands with soap and water;
- So that the use of the gloves does not become the vehicle for the dissemination of pathogens, it is necessary to use them exclusively in operations where their use is required and must be discarded after use.

Protection Workwear

- The garment must be intact, clean and of adequate size;
- Special procedures must be developed to determine how and when to use the garment after use (sanitization);
- The user must personally check the integrity and cleanliness of the garment and suitability of the sizes; He will have to ask for the change of the garment if this is smeared;
- Disposable clothing (non-woven fabric overlays) should be used to be used in operational situations that presuppose greater exposure to biological hazards.



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Protection of the face and respiratory tract

- Eyeglasses, visors, or screens are recommended when operations may expose the eyes, mouth and airways to sketches of biological material;
- In specific cases it may be necessary to also protect the respiratory tract with suitable respiratory protection devices. For further details please refer to what is contained in the PPE Booklet.



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2.1.3 Related risks to the use of healthcare equipment

2.1.3.1 Needls and cutters

- Pointed, sharped and cutting tools should be considered dangerous, so they must be handled with care to avoid accidental injuries;
- All operators must take the necessary measures to prevent accidents caused by cutting edges (eg scissors, glassware, etc.) and needles;
- Many injuries occur due to incorrect removal of needles; it is recalled in this regard that it is forbidden to reinsert the needles; the syringes should be completely disposed of in the yellow colored container;
- Needles and cutters after use should be removed ONLY and EXCLUSIVELY in the appropriate, rigid, waterproof containers with a hermetic closing closure;
- Disposal containers must be kept at hand during work so as not to defer the disposal of needles or sharp edges and dispose of them at the same time as the use.

2.1.3.2 Cleaning maneuvers of tools and equipment

The instrument's washing maneuvers are particularly at risk, and unless extreme cases cannot be avoided, mechanical washing should be carried out.

In no case shall the COMPANIES operators sanitizing or decontamination of laboratory equipment for the performance of examinations, safety booths, laboratory equipment, work planes or other surfaces on which biological samples are to be taken, if not Explicitly authorized by the Laboratory Manager

2.1.4. Precaution in cleaning and sanitizing operations

As a general assessment of the biological risk, it can be said that, when cleaning the environment (or maintenance activities in general), the possibility of biological contamination is usually very low.

In fact, the guarantee of adequate security for external staff working in the workplace is ensured by the application of the essential safety precautions commonly used in any healthcare environment, the application of which is controlled by the **structure manager**. More specifically, each department manager (see section 1.1) should facilitate the conduct of external business operators by avoiding accidental exposure to biological agents by ensuring that:

Personnel involved in ordinary, extraordinary or maintenance operations should generally observe the following:



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- Before commencing any ordinary, extraordinary or maintenance cleaning, you should generally contact the Responsible or the Referent to request information on any specific risks or the need to take special precautionary measures;
- In no case must the sanitary equipment or laboratory decontamination be carried out to carry out examinations, safety booths, laboratory equipment, work planes or other surfaces on which biological samples are to be obtained, unless expressly authorized By the Head of Laboratory.
- Must wear suitable work uniforms, complete with non-slip shoes, possibly water repellent and fully closed or at least in the front; It is to avoid the use of slippers or hooves, which do not guarantee the full coverage of the forefoot or that do not guarantee the correct fit during work. The use of open shoes may be the cause of injury as a result of accidental trauma injuries such as wheelchairs, door edges, etc.;
- Before wearing normal cleaning, wear gloves (home-made), to be replaced according to the environments they are intended for (possibly differentiated by color: 1 pair for the resting areas, 1 pair for the baths). All operators must be duly informed about the correct maintenance procedure for the supplied gloves (cleaning after use, wear assessment etc)
- Must wear, whenever the department manager reports to you, protective gloves such as overwork and masks suitable for the type of work provided by the contractor,
- In the event of the need for protection of the respiratory tract for the prevention of exposure to infectious agents, staff must be provided with respiratory protection devices suitable for the purpose and must be properly informed of their correct use And maintenance.

2.1.5. Precautions in cleaning and sanitizing operations

Personnel handling and transport at the storage site of sanitary wastes containers that can not be assimilated to urban areas may result, due to incorrect handling procedures, potentially exposed to the risk of biological contamination, puncture, cutting or accidental contact with material Organic waste. In order to avoid this possibility, waste handling workers must be properly informed by their employer of the nature of the materials they must carry.

It is absolutely forbidden:

- Open the containers and introduce their hands, or flip them with the risk of leaking material, manipulating the containers without wearing suitable protective gloves provided by the employer; We recommend the use of protective gloves also for the cleaning of trucks used for transport;
- Touch naked bare hands visibly dirty or damp; In this case, report to the department managers the drawback so that the container can be safely replaced.
- It is recommended to wear a work uniform to be worn when collecting and storing non-assimilated urban garbage and suitable non-slip shoes, to prevent accidents.



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2.1.6 Precautions for maintenance and technology services

In general, it should be noted that, while respecting basic hygiene standards, the risk of contracting outbreaks of infectious disease in the environments of the CROM for internal or external staff working in this field is not superior to the same activities carried out in other areas workplaces.

Therefore, the possibility of contracting outbreaks of infectious disease at the workplace for this personnel is extremely low.

2.2 DANGEROUS SUBSTANCES

2.2.1 Generality

In all sectors of the hospital, chemicals are used, albeit in limited quantities and for limited uses. Among the first measures suitable for the prevention of incongruous exposure are:

- adequate reporting of the risks associated with the use of chemicals, in particular with regard to the presence of adequate labeling on all containers,
- the presence of the Safety Data Sheets (SDS) of the substances used,
- the correct information of operators using these substances.

In detail:

- In the Research Laboratories, more than any other environment, concentrated acids and bases are used, toxic, irritant, occasionally also carcinogenic, oxidizing and combating, teratogenic or mutagenic, sensitizing, water-incompatible products or causing serious reactions with water. In these environments, the ban already present in the other areas of the center, the manipulation of containers without authorization, and the duty to interfere with the Responder become even more rigorous.
- In "x-ray plate development" environments where not already digitized automatic developers are installed that can only release chemical vapors accidentally, the quantity and toxicity of which, given the low quantities involved, does not cause problems, even considering the presence of suction systems, Which provide for the normal replacement of air



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MEASURES

2.2.2 Chemical hazard warning

There is no, or rather is not applicable, a generic chemical risk signal. Signals of chemical risk may, but not always, be present on lab reagent containers; The main signals are as follows:



Corrosivo



Tossico



Irritante

In all cases, attention should be paid to handling or using preparations that, if present, include the following risk phrases:

- T R45: Can cause cancer
- T R49: May cause cancer by inhalation.
- Xn R40: Possibility of carcinogenic effects insufficient evidence
- T R46: May cause hereditary genetic alterations
- Xn R68: Possibility of irreversible effects
- T R60: can decrease fertility
- T R61: May cause harm to not yet born children
- Xn R62: Possibility of reduced fertility
- Xn R63: No risk of injury to not yet born children

It is noted that drugs do not report these risk phrases, as it is not mandatory to report on pharmaceutical substances.



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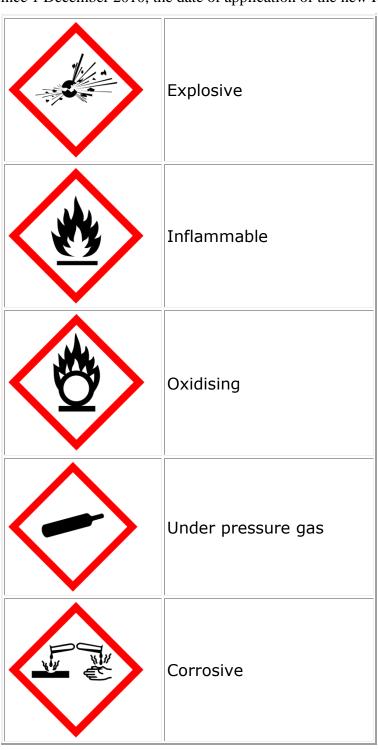
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2.2.3 New REACH Signage

These are mandatory since 1 December 2010, the date of application of the new REACH Regulation.





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2.2.4 Cryogenic gases and liquids

Many samples and laboratory cultures are stored at a very low temperature in liquid nitrogen (cryobank); Many samples are stored in laboratories, which have no centralized nitrogen filling system. Nitrogen is a gas that, if present in the environment in excessive concentrations, can cause suffocation rapidly. In fact, although nitrogen is not a toxic gas, it is dangerous if it is replaced by oxygen in the environment. It should also be noted that a small amount of evaporating liquid creates a large amount of gas.

Liquid contact with nitrogen can cause serious eye or skin freezing.

The two main safety aspects to consider in the use of liquid nitrogen are therefore the adequate ventilation of the premises where it works and the protection of the eyes and the skin.

For safety reasons, lifting and hoisting of cryogenic liquids containers of more than 250cc capacity with people is prohibited.

For the supply to the Laboratories of the Center, the transport worker must place the container in the hoist, go uphill to the plan of destination and call the lorry.

Personnel who, called the freighter to move between floors, should find the same occupied by the nitrogen container, must close the door to allow completion of the procedure.

2.2.5 Compressed gases, cylinders

Compressed gases are used in many sanitary environments. They can be found in containers (cylinders) of various sizes and pure or compound (examples: oxygen, carbon dioxide and nitrogen).

Compressed gases can be toxic, flammable and explosive. These effects result from the compression of the gas and the health effects that the chemicals themselves may have.

The control of this risk factor involves essentially the adoption of caution in all phases of the use of compressed gases and manipulation of the respective containers; These caution are subject to specific training and information from healthcare professionals exposed to this risk factor.

The strict observance of the general measures of conduct contained in the relevant paragraph of this document, together with the observance of the working principles of workers, in particular in Article 20 of Legislative Decree 81/08, are such as to minimize the incidence of this risk factor for external and / or non-health personnel who are called to operate in areas where the same risk exists.

The only risk, however, associated only with the use of cylinders, remains the strictly injured by the impact and fall of the tank itself



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2.2.6 Prevention measures of chemical risk

It is strictly forbidden to manipulate, move, open containers of chemicals that may be present in healthcare environments where firms are called to operate without a justified reason and without the explicit permission of the laboratory manager.

It is also strictly prohibited to use containers of liquid food for the cleaning of detergents, thinners, chemicals, or otherwise non-edible products, even temporarily and for the sole use of a single process.

As for chemicals that may still be present in the environment, attention is drawn to the fact that they - under the responsibility of laboratory managers - are enclosed in containers labeled according to law and any problems or accidental contact with They are immediately referred to the same laboratory manager, who will suggest the appropriate measures.

The introduction of hazardous materials and / or equipment (for example, flammable gas cylinders, chemicals, etc.) must be authorized in advance by the figures in section 1.1.

In hazardous environments and in any case during work, it is forbidden to consume food and beverages, smoke or apply cosmetics, as such operations may favor the incorporation of any dispersed chemicals.

If the Contractor introduces and / or uses chemicals to perform the work, it is obligatory:

- Provide CROM with the chemical safety data sheets used;
- Read the safety data sheets accompanying the products, wear the individual protective equipment specified therein, follow the labeling and tabulation precautionary warnings and in particular avoid dispersion of the environment (atmosphere, soil or water) of dangerous substances For humans and / or the environment as indicated in point 12 of the safety data sheets of the products used for ecological information pursuant to Legislative Decree 52/97;
- Never use non-labeled containers and in case you should notice its presence, do not open and handle its contents;
- Do not mix incompatible substances;
- Remove debris (debris, packaging, parts of machinery, etc.) arising from the execution of the bidding activity and specifically to provide for collection, storage and final disposal according to Legislative Decree no. 152 of 2006, is the exclusive competence of a specialist waste management company.

2.2.7 Chemical risk rating

Without prejudice to procedures including those indicated on the safety data sheets of each preparation or substance, chemical risk can be considered as low for safety and irrelevant to the health of workers in companies.



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2.3 ELECTRICAL EQUIPMENT AND IMPLANTS.

The major health damage due to electrical hazards consists of painful shocks, deep (electrical and thermal) burns, irregular heart rhythms, respiratory arrest and death.

Exposure may occur due to lack of maintenance of any electrical equipment, or for misuse or lack of knowledge of the equipment and / or its controls. Enriched oxygen and water atmospheres can help make the conditions more risky.

2.3.1 Implants

The functioning of all CROM facilities must always be guaranteed because the criticality of any of the implants can have consequences for the safety of patients.

This chapter provides information on the safety aspects of the systems, starting from the electrical system, in order to avoid risks for workers.

2.3.2 Electrical equipment

In CROM are present:

- Scientific equipment, some of which are fueled by hazardous gases due to their flammability or explosiveness, or for combustion properties or toxicity;
- Appliances or similar appliances.

Much of the electrical system of the CROM, and therefore many of the equipment present, are powered by an independent electrical source (UPS), in the absence of external power supply. Therefore, in any environment of the CROM, an electrical equipment or wire may be in tension even when the external supplier network is inactive, or when it seems to be "current defective".

2.3.3 Provision for the prevention of interference risks

Any intervention on the CROM facilities must be previously authorized by TS. Never perform any repairs or repairs on electrical systems or equipment if you do not have the specific knowledge and technical skills required by applicable legislation: tampering with a plant or component will lose the manufacturer's warranty as well as an established electrical system or equipment may become dangerous due to incorrect operation or repair.

- In order to ensure an adequate containment of electrical hazards, the user of electrical installations and equipment must pay particular attention to ensuring that they are in good condition, working properly and not damaged. In order to avoid the risks associated with the use of broken or degraded equipment, it is necessary to periodically check the state of conservation: any situation deemed unsuitable must be reported promptly to its superiors and STs, which will activate verifications and interventions of the case.
- The use of deteriorated electrical components (conductors with non-integral isolation, broken housings, approximate electrical connections, splitters and split plugs etc.) considerably increases the risk of electrical contacts. Therefore, it is forbidden to use non-insulated cables or equipment and lines or circuits whose partitioning of the active parts does not permit direct or safe control of the sectioned parts.
- The connection of electrical appliances to the network of the CROM should in any case be preceded by a verification by the technical personnel responsible for the control of the equipment in order to ascertain compliance with the applicable safety standards and compatibility with Hospital electrical network. It is therefore advisable to avoid the use of



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devices that have not been previously authorized and, in particular, the connection to the electrical network of personal devices must be checked and minimized.

- Contractors who use electrical tools or machines to carry out their activities must only use equipment complying with the applicable regulations and ensure that they are properly maintained.
- Do not use non-compliant electrical components: all the safety of an installation ends when electrical users (such as plugs, adapters, multiple sockets, extension cords, loudspeakers, etc.) are not compliant. All used plug sockets must be protected against direct contact with a cable retainer, removable only by the use of a tool (screwdriver) and must not allow the unipolar plug of the plug
- Do not use electrical components or machines for any purpose not provided by the manufacturer. In such cases, improper use of the component may result in electrical or mechanical hazards that are not anticipated during its construction.
- For all electrical power supplies, businesses will need to acquire the necessary information from the ST and follow the instructions given by the TS.
- Particular attention should be paid to the use of electrical equipment or tools near medical gas points due to the increased risk of fire and / or explosion; In such cases, it is always necessary to ensure that there are no dispersions or danger situations, requesting information from the head of the laboratory where it works. Similarly, unplanned electrical equipment should not be used, in increased electrical risk (eg. with wet hands, wet floors or humid environments)
- Do not carry out cleaning operations on electric machines with liquid detergents or wet dampers before disconnecting the power plug
- Do not leave electrical equipment (cables, extensions, traps etc.) abandoned on the transit routes: in addition to causing obstacles and risk of stumbling and falling, they may be subjected to mechanical stress not provided by the manufacturer with consequent risk situations

In all environments, access procedures **must be agreed** upon with the CROM's Referrer.



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2.4 PHYSICAL AGENTS

For the following physical agents, given the absence of sources, there is no indication that there is any indication under Art.181, paragraph 3 of the T.U.:

- infrasounds
- ultrasounds
- hyperbaric atmospheres

2.4.1. Ionizing radiations

2.4.1.1 Generality

Ionizing radiations are generated by radiogenic machines or radioactive sources.

Radiogenic machines are a risk of ionizing radiation only when they are connected to the power grid and are used in handwriting and / or lens mode by delivering a XR beam.

The handwriting mode assumes a duration of emission of just a few tenths of a second at every "click", the mode of shooting assumes a continuous emission which altogether can be in the order of several minutes.

In these exposure modes, the **risk of irradiation** is associated.

Radioactive sources, on the other hand, keep their danger until complete decay; the time needed for decay is characteristic of each radioactive substance and in many cases it may be particularly long. Radioactive sources, therefore, must always be adequately confined.

In particular, the "non-sealed" sources pose a danger as well as external irradiation due to possible irradiation due to possible contamination, while "sealed" sources are only dangerous for external irradiation, just like a radiogenic machine.

An "unbound" source is dangerous either because it radiates externally and is because it can be incorporated by ingestion, inhalation, skin contact, and continue to irradiate from inside the critical tissues from very small distances. In this case we are talking about the **risk of internal contamination**.

The use of ionizing radiation is carried out under the supervision of the Qualified Expert, who is the professional responsible for assessing the risk and defining safety standards and safety procedures.

Medical surveillance is performed by the Authorized Physician or in specific cases by the Competent Medical Officer responsible for the medical surveillance of exposed workers.

Qualified medical practitioners and qualified experts must be entered in the appropriate list of names held by the Labor Inspectorate.



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2.4.1.2 Areas of use of ionizing radiations – Risks signaling

In the Radiopharmacy laboratory are produced radio drugs (cyclotron and radiochemistry); There is a PET for small animals for research purposes.

At the CROM you can find the following signposts:



Risk of irradiation and contamination

The sign posted on the door of the radiochemical area of the cyclotron and the local radioactive waste may be accompanied by one of the following warnings:

Controlled area means that the stay in the designated area for work carried out in a solar year may result in exceeding the limits set for workers; This is true during radius delivery and access is prohibited to personnel not specifically authorized.

Guarded area means that the stay in the designated area for work carried out in a solar year can result in exceeding the limits set for the population; In these areas during the delivery of the rays, it is not allowed to rest after completing their work.

Women who are pregnant can not engage in activities in classified areas.

2.4.1.3 Rules for reducing the risk of radiations

The following paragraph contains the Radiation Protection Standards and access procedures for interventions within the Radiopharmacy area.

If you need to enter the laboratory or store radioactive substances, make sure (inquiring information to department managers) about the need to wear personal protective equipment. However, the incidence of this risk factor on external staff can still reasonably be considered, however, in any areas classified as at risk as:

- In the CROM, all the radiation protection measures that are currently in place, not only of the health care staff but also of the other employees and visitors, are already applied, measures that thus also protect the staff of external and / or personal non-medical firms Called to operate in areas at risk;
- While carrying out the activities of external firms within the healthcare environments, there should not be any kind of activity and in particular radiological work;
- For special cases that will require access by external and / or non-health personnel in hazardous areas, the Department Manager will advise on precautions against the risk of exposure to ionizing radiation, agreeing on times and Intervention at the start of the work (see next paragraph) Radiations protection procedures for firms operating in a controlled and supervised area).



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2.4.1.4. Radiations protection procedures for workers of external companies

Below are the Access Regulation and Radiation Protection Procedures for Workers of External Companies Developed by Qualified Expert:

- 1. Controlled Zone Access Regulation
- 2. Radiation protection procedure for workers of contractors engaged in controlled or supervised areas for maintenance and / or calibration activities;
- 3. Radiation protection procedure for workers in the cleaning firm operating in controlled or supervised areas of the functional area of nuclear medicine within the meaning of Legislative Decree 230/95 and smi

1. ACCESS REGULATION IN CONTROLLED AREA

- Access to the Controlled Areas, for both workers and public, must always be authorized by the Head of the Laboratory where the Controlled Zone is located, after having heard the Qualified Expert.
- Access to the Cyclotron / NMR area must always be accessible only by telephone and / or special badge.
- Badges can be issued by the Responsible Agent to the only authorized personnel to access the Department.
- You can access the Laboratory:
- 1. Personnel in service at the CROM specifically authorized and eventually classified by Qualified Expert;
- 2. The cleaning staff according to established procedures;
- 3. Personnel contractors <u>must operate</u> in controlled or supervised areas where radionuclides or radiological equipment are in operation (following the appropriate procedures set out in the IDR):
- 4. The contractors contracting personnel <u>who DO NOT have to operate</u> in controlled or supervised areas where radionuclides or radiological equipment are in operation;
- 5. CROM staff and / or visitors who do not have access to controlled and / or monitored areas.
- The Contractor's personnel who must access the controlled and / or monitored areas where there are radionuclides must always be accompanied by a supervisor of the Functional Area where the Controlled Zone is located. The manager assists the Contractor's staff to ensure compliance with internal radiation protection standards of the laboratory;
- During the activities carried out by the employees of the cleaning company, there must always be a person in charge of the cleaning firm's staff for any problem;



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- CROM staff and / or visitors who do not have access to controlled and / or supervised areas should always be accompanied by a laboratory worker who is assisting in their proper parking in rooms where there is no risk of exposure to ionizing radiation.
- Further workers or members of the population will be able to access the Controlled Zone only after the Head of the Functional Area obtained the written consent of the Qualified Expert.
- The workshop manager should have access to the personnel who must operate in controlled or supervised areas where there are radionuclides in operation only after verifying that the aforementioned staff is equipped with the electronic readout electronic dosimeter released by the Health Physics.
- Contractors and supervisors workers are required to comply with the radiological protection procedure for workers of contractors engaged in controlled or supervised areas within the meaning of Legislative Decree 230/95 and for maintenance and / or calibration activities.
- Employees and supervisors of the cleaning firm are required to comply with the radioprotection procedure for workers in the cleaning firm operating in controlled or supervised areas of the functional area of Nuclear Medicine pursuant to Legislative Decree 230/95 and rev.
- Anyone who discovers a fire principle must contact the 710 telephone number to alert the technical structure and verbally inform the person in charge.
- The person in charge must promptly make emergency procedures in case of fire in the Functional Area;
- Anyone in the laboratory will need to follow in detail the instructions that will be provided by the evacuation coordinator, including the immediate evacuation order, in relation to the emergency procedures in the laboratory.

2. RADIOPROTECTION PROCEDURE FOR WORKERS OF CONTRACTORS OPERATORS IN CONTROLLED OR SURVOCATED AREAS UNDER D.LGS 230/95 AND SMI FOR MANUFACTURING AND / OR CALIBRATION ACTIVITIES

This procedure stems from the requirement of the Occupational Employee of the CROM to comply with the Radiation Protection Obligations charged by Contractor Techniques of Maintenance Service and / or Calibration of Radiated Sources installed and operating at the CROM, and more generally, to the employees of Maintenance Companies performing their work performance in a Controlled or Supervised Area at the CROM.

This procedure applies only where the Contractor's employees have the absolute need to operate in Controlled or Controlled Areas where there are Radionuclides in order to carry out their activities.



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Each Director must ensure compliance with the provisions of the Radiation Protection Coordinating Document prepared by the Qualified Experts of the CROM and the Qualified Expert of the Contractor Company.

The Qualified Expert is responsible for the provision of direct electronic read-out dosimeters to employees of contractors for the activities they *have to perform in Controlled or Controlled Areas where Radionuclides are present*. If the contractor's staff is classified in accordance with Legislative Decree 230/95, the delivery of the electronic reading dosimeter will take place after the person in charge has received a copy of the medical fitness of the worker pursuant to Legislative Decree 230/95.

The Laboratory Director must in advance inform the planned day, time and duration of the maintenance work to be carried out by the Contractor's Workers at the MOU's Controlled or Controlled Areas. Laboratories must identify a Responsible who must be present during the activities performed by the employees of the Contractor companies. The appointed officers must be officially assigned by the Labor Director, who must ensure that he / she is present during the work of the employees of the Contractor companies. The Laboratory Manager must identify a suitable number of Prescribers who are required to equip the Appraisers of Appropriate Direct Reading Direct Diffusers before the aforementioned personnel work in Controlled or Surveillance Zones where there are radionuclides or radiological equipment in operation. At the end of the intervention, the Contractor's worker must return the electronic dosimeter to the Responsible Authority who will transcribe the reading indicated by the electronic dosimeter on a special Registry. The register must include: date, contractor, employee contractor, health physician, effective dose read on the electronic dosimeter worn by the contractor's employee, signature of the contractor and signature for the employees of contractor companies. Each page of the Registry must be signed by the Laboratory's Head of Vision. The Registry must be kept by the Head of the Laboratory. Monthly copy of the pages of the Register used must be sent to the Qualified Experts and the HSEM for the appropriate assessments of competence.



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3. RADIOPROTECTION PROCEDURE FOR WORKERS OF CLEANING COMPANIES WORKING IN CONTROLLED OR FULFILLED AREAS UNDER DECLARATION 230/95 AND SMI

This procedure stems from the requirement of the Occupational Employee of the CROM to comply with the Radiation Protection Obligations of Employees of Cleaning Offices who perform their work performance in a Controlled or Supervised Area at the CROM.

Cleanroom staff who must be employed in a controlled or supervised CROM area must attend a special training course and comply with the established radiations protection regulations.

The Cleaning Company is obliged to communicate in advance the intention of the Company itself to change the list of the Cleaning Staff.

The Laboratory Director must identify a reasonable number of Prescribers who must be present during the activities performed by the employees of the Cleaning Company.

Supervisors must be officially assigned by the Laboratory Director and accept the appointment in writing.

The Laboratory Director must ensure that at least one responsible person is present during the activities of the cleanings' workers.

Access to the premises of the Cleaning Company must always be authorized by the person in charge of radiations protection.

In the event of any contamination, the person in charge must, in accordance with the internal radiation protection regulations, take care to eliminate any contamination before the cleaning firm is brought to the laboratory.

The cleaning company personnel must wear PPEs made available within the area

The cleaning company staff is provided with:

- Washable sockets supplied to each worker;
- Uniforms in TNT material;
- Waterproof PPE Surface Coats;
- Gloves, of the type used for administering radiopharmaceuticals to be worn above the gloves generally used for cleaning;
- Disposable Gloves (Responding to Technical Standard (UNI EN 241);
- Disposable divider (Responding to the technical standard (UNI EN 1073).

All equipment used for cleaning should be exclusively used in these premises and disposed of by the laboratory personnel in accordance with the waste management protocol of the departments themselves.



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2.4.2 ARTIFICIAL OPTICAL RADIATIONS

At the laboratories of the CROM there are germicidal lamps and transilluminators for gel plates that generate UV radiation.

Germicidal lamps are also installed on organic hoods in laboratories and are lit only when the hood is properly closed (hood glass can absorb radiation).

Transilluminators can only be switched on if there is no personal area in the surrounding radius (2 m), unless this wears the Individual Protection Devices (mask).

The UV sources of analytical apparatus are normally protected by screens that make the radiation unattainable. During maintenance or adjustment operations, however, the beam may become accessible.

Such adjustment operations should normally be carried out by the maintenance staff of the maintenance company, provided with the necessary training and, where appropriate, appropriate PPEs.

During maintenance work, non-staff members should be kept safe at all times.

Class 3B and 4 laser devices may be hazardous when exposed to direct beam or even diffused radiations.

Apparatus of this type may also be present in the research laboratories associated with analytical instruments identified with the following description, even in this case the beam is accessible only in case of special maintenance work reserved for the staff member.

2.4.2.1 Signaling for optical radiations

There is no specific signage for germicidal lamps and transilluminators

On the doors of the rooms where class 3B and 4 laser are present, the signal is exposed



Laser sources in the CROM can only pose a risk during maintenance operations that lead to the suspension of security devices installed on the instruments.

The same pictogram can be present close to the laser aperture of other equipment.

These lasers are less dangerous, but being their safety feature based on the ability of the human eye to react to stimuli, it is still good to not look directly at a laser source.



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For direct exposure to the laser beam, skin and eyes burns can reach the blind. Exposure to ultraviolet light can also cause cataracts.

2.4.3 ELECTROMAGNETIC FIELDS

Electric maintenance personnel may be exposed to magnetic induction fields generated by electrical installations at higher current absorption.

Using reference values as Directive 2004/40 / EC, subsequently extended by 2012 by Directive 2008/46 / EC, considering the electrical power installed, magnetic field induction levels close to the action values may be present at most main cabin in the hands position at the time of the operation of the general low voltage switches, where the circulating current can reach or exceed 1000 A.

For reasons of electrical safety, these switches automatically open in the event of a failure without the intervention of the personnel or, in the case of maintenance, they are opened manually after disconnecting the main servo utilities, therefore under low load conditions, not to create potentially damaging overcurrents for the implants themselves.

Personnel exposure is therefore extremely unlikely.

Portable radio frequency and microwave telecommunication systems, including wireless computer networks, generate electromagnetic fields far below the action values.

2.4.3.1 Signaling for electromagnetic fields

The signal



indicates the presence of an electromagnetic field (frequency different from zero).

The values of these fields in the CROM are, however, below the action values deemed to be safe by international law.

The sign indicates the presence of conductors where high currents pass through.



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2.4.4. MICROCLIMATE AND VENTILATION

Situations of non-thermal comfort may occur in all areas of the MOU, in particular during maintenance work; In the case of shipyard activities that would require decommissioning, even partial, of the plants in the summer season, appropriate measures should be taken to reduce the temperature in the working area.

Without this clarification, the risk associated with the microclimate is to be considered low.

However, microclimate risk factors can only be associated with thermal stress situations.

2.4.5 ELIMINATION OF NOISEAND VIBRATION INTERFERENCE

Given the delicate nature of the equipment installed at the CROM, prior to using equipment capable of causing significant levels of noise and vibration on the structures, the Direction must be informed in order to agree on the timing of the interventions.

2.5 EXPLOSIVE ATMOSHPERES

No work area is allowed to form explosive mixtures under Title XI of the T.U. since:

- the use of flammable substances is limited to low concentrations; it should be remembered that the accumulation of inflammable agents is forbidden under the hoods of laboratories and that the use of ether for the sedation of laboratory animals must be done under the glass bell using the minimum necessary quantity;
- in case of oxygen leak, the procedures of the Emergency Plan apply.

Please note that the use of gas appliances, as per Presidential Decree no. 61, is not subject to the provisions of T.U.

It is not possible in any work area to form explosive mixtures of powders.

Maintenance work with the oxyacetylene torch should only be carried out after guaranteeing the ventilation of the premises and avoiding combustible materials.

At the end of the work the cylinders must be stored in the yard area in a suitable and protect place.



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2.6 MANUAL HANDLING OF LOADS

2.6.1 Loads handling

Manual handling of loads by unstructured outside personnel mainly concerns the pulling activities of cleaning trolleys, porterage and waste collection (cleaning service).

The staff member must be suitably trained on the correct handling of the loads and subjected to health surveillance.

2.7 VIDEOTERMINAL PROVIDED EQUIPMENT

According to Art. 174 paragraph 3 of the T.U. workplaces must comply with the requirements of ANNEX XXXIV; such a prescription applies regardless of the time of use of the post and the employment relationship with the CROM. Please note that, in accordance with point f) of ANNEX XXXIV, the prolonged use of laptops requires the provision of the appropriate accessories to make the workplace standard (mouse, keyboard, screen, etc.).

VDT staff working for more than 20 hours a week must be under medical supervision.

2.8 SAFETY RISKS

2.8.1. FIRE RISK

The Legislator, in the March 10, 1998 Decree on Emergency Management, classified healthcare facilities such as "High Risk of Fire" Structures. Therefore, the risk of fire in the CROM is to be considered high. The structure complies with the fire regulations in force as per Dec. 19, March 2015, G.U. General Series No.70 of 25-3-2015.

There are fire extinguishers, hydrants, compartment doors, fire detectors, gas leak detectors, alarm buttons, filter zones, safety outputs, reported routes.

Flammable solvents are also used in research laboratories; the execution of hot work, however agreed with the technicians, must also be agreed with those responsible for the laboratory, who must move the materials at risk beforehand.

Behavioral rules

Every worker must carefully observe the fire prevention and fire protection devices (eg fire extinguishers, hydrants, alarm buttons, etc.) and the specific behavioral rules (eg directions, escape planes and meeting places) of the site in which he is called to operate.

For the purpose of limiting the risk of fire, the roads and the safety exits shall be left unmounted by any type of material; fire-fighting devices must be properly located and in good condition: any situation deemed unsuitable must be reported promptly to the TS for the relevant checks.



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External companies, service providers and other non-employees are therefore encouraged to comply with the provisions of DM 10/3/98 and ss.mm.ii. and in particular all possible organizational and management measures such as:

- respect for order and cleanliness;
- respect the smoking ban in all facilities
- checks on safety measures in the form of internal rules on the measures to be observed,
- information and training of workers

In section 3.1, the emergency measures are reported in case of fire.



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2.8.2. INVESTMENT, FALL, CRASH, RISKS

Investment, fall and impact risks can be realized in all internal and external areas of the CROM and in common routes for the presence of means of transport or other means or persons (contractors of contractors, workers and visitors) present in the business areas.

2.8.2.1. External viability

Access to vehicles and persons in the external spaces of the building involves a risk of injury related to the simultaneous transit or parking of other persons or the passage of vehicles or equipment (forklifts, cars, trucks, electrical or manual pallets etc.) . Risks of:

- investment of people with vehicles
- falling loads on people passing through the loading and unloading operations
- slipping and falling (especially if it rains)
- stumble or impact due to materials present

It constitutes an aggravating circumstance of the risk of lower illumination in the evening hours.

Prevention measures

Movement in the external road of the CROM must be done by strictly observing the rules of road traffic and the horizontal and vertical signage; the speed must be limited (manually or at a maximum of 10 km / h); it is nevertheless strictly forbidden to park in correspondence with safety exits, hydrants, fire extinguishers, motorcycle pumps, disabilities.

Automotive access with significant dimensions (over 35 q.li) must be coordinated with the Technical Structure. In case of necessary access to special or particularly bulky means (eg cogwheels, truck cutters, etc.), there must be additional staff of the Company for assistance in maneuvers in order to prevent accidents.

In reversing maneuvers, in addition to the buzzer, there is a need for another procedure that limits the risk of an accident (presence of other operator of the company who co-operated in cabin and / or camera with cabin screen and / or proximity sensors or other).

The parking, the loading / unloading activities must take place in accordance with the terms agreed with the buyer.

In the case of more than one vehicle, each operator will wait for its turn in accordance with the order of arrival without interfering with unloading activities being completed and without hindering the viability of the medical and / or private means of transport.

There is an obligation to turn off the engines in the exhaust area.

Goods loading and unloading by truck or crane truck must be carried out with additional on-ground personnel to ensure that operations are carried out without interference with persons moving on site; if longer operation is planned, the loading and unloading area must be delimited by moving transitions. Materials and equipment must not be deposited, even temporarily, along the transit routes or entrance courtyards; in case of impossibility to operate differently, they must be adequately reported

Pay particular attention during transit in the outdoor areas during the winter season and always in case of rain.



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2.8.2.2. Internal viability

Access by persons to the interior of the building involves risks from:

- investment of people with materials transported along the transit routes, in particular corridors, and lifts
- fall of persons by stumbling or banging due to temporarily deposited materials along the transit routes

Transportation of materials to lifts may result in people's investment risk during cabin travel; there is also the risk of pinching the upper limbs when materials of considerable width are introduced in relation to the cabin door width.

Access to elevators may have a height difference that can cause stumbling or real traumatic burdens.

The floors of some premises may be slippery: in this sense, it is at risk of the contemporary and widespread presence of cleaning personnel, especially when floor cleaning or electric cleaning appliances are used (for the presence of electrical floor wires).

Despite the constant commitment to improvement, sometimes electrical and telephone cables and multiple plugs may still be present in the premises, which may be the cause of stumbling.

In some areas there are narrow passages (widths less than 70 cm) with a risk of impact against the edges, especially in the technical rooms where the presence of pipes, valves, etc. is a condition of increased danger.

Prevention measures

Considering the always possible presence of CROM personnel, the transport of equipment and materials along internal routes must always take place with great caution, without prejudice to the safety of persons and without harm to the structure.

- in the case of transport of bulky equipment in the transit zones, the date, time and route to be followed from the area of discharge to the point of delivery in order to limit the interference shall be defined in advance with the structures responsible.
- In case of use of lifts for the transport of bulky and / or heavy equipment, it is necessary to check the capacity beforehand, never carry it at the same time as there are persons (not climbing if other persons are present and preventing it from climbing) Always keep the cargo against the cab wall during travel, carrying out the operation with two people. Always pay attention to the difference between the cabin and the landing; the bulky material should be pushed without putting your hands in the interstitium with the cabin and moved in two people.
- In case of passage or parking in technical premises, caution should be exercised for the presence of obstacles with a risk of stumbling and falling or knocking. It is imperative to wear helmet and accident shoes; there must always be at least two people present, one with a cell phone or radio to report emergencies.
- Materials and equipment must not be deposited, even temporarily, along the transit routes; in case of impossibility to operate differently, they must be adequately reported



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- Avoid working at the same time with the cleaning company; the latter have an obligation to have on both sides access to the danger of slipping when the floor is wet.
- The CROM's operators are alerted to cautiousness and attention in the handling of trolleys or other mobile equipment.

2.8.3. RISK OF BURNS

This risk is present in the thermal plant for the presence of steam and hot water and can be achieved either by contact with hot materials, pipes and valves, or by investing operators by high temperature fluid jets following breakage of valves, equipment or other technical devices (eg condensate drainers).

Prevention measures

• Use specific PPEs (protective gloves against thermal assaults, protective clothing against heat)

2.8.4. RISK OF ELECTRIC SHOCK

This risk for those who use electrical equipment to connect to fixed electrical outlets, albeit very low and almost irrelevant, is to be taken into account in case of obsolete electrical cabinets or with unprotected or improper use.

The electrical systems are all protected against indirect contactors by differential switch and grounding.

Prevention measures

- Every electrical operation must be carried out by qualified external contractors on the Technical Structure mandate: Never carry out any repairs or repairs to electrical systems or machinery if you do not have any specific knowledge or professional qualifications as required by current legislation.
- Never use deteriorated equipment (wall-mounted or unsuitable for use with the equipment).
- Contact the Technical Facilities of the CROM for the deactivation of the electrical power supply systems the premises involved.
- If demolition work is to be carried out or may be affected or interfered with the installations, it is necessary to inform them in advance of the presence of live conductors.
- Pay particular attention to the insertion and deactivation of plugs in unprotected alveoli jacks.
- Always report situations of obvious danger (wall outlet, open circuit boards etc).



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3. EMERGENCY MEASURES FOR COMPANIES AND SELF EMPLOYEES

3.1. FIRE / EVACUATION

Behavior of any worker still operating within the CROM

Circumstance	Actions
ALWAYS	Every worker must carefully observe the fire prevention and fire protection devices (fire extinguishers, hydrants, alarm buttons, etc.) and specific behavioral rules (indications, escape planes and meeting places) of the place where he is called work.
WHEN A FIRE RISK IS	Any worker who becomes aware of a fire or danger in general is obliged to intervene immediately in the following manner:
OPENED	• contact by telephone at no 710 - 711 - (Mrs. E. Pellecchia) communicating the place and the type of event;
	• if it is a fire and the worker has been trained, intervene using the nearest fire extinguisher
	Follow the instructions of the emergency management personnel (departmental staff, first intervention group, emergency teams, VVF);
	if requested:
IF YOU ARE INVOLVED IN AN EMERGENCY	help keep calm, do not run, do not yell, avoid panic; in the other case:
	 exit the department by following the safety exit reports and head towards the collection point shown in the planimetry attached to the walls of the place where you are and wait for instructions;
	it is forbidden to return to emergency environments until ceasefire communication.



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3.2. CHEMICAL RISK: ACCIDENTAL SPREADING OF CHEMICAL SUBSTANCES AND WASTE

- open the windows and close the access doors to the premises, alerting the perpetrators of the danger.
- immediately notify the manager of the department / service in which he / she works and his / her manager; if there is no one in the premises where the spread has occurred, report the incident to activate the procedures for reclamation.
- If present in the room, cover spreading with inert (sand or synthetic adsorbents); Never use paper or rags.

It is forbidden to collect this material with your hands.



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3.3. RADIOLOGICAL RISK: ACCIDENTAL SPREADING OF RADIOACTIVE SUBSTANCES AND WASTE

- immediately notify the head of the department / service in which he / she works and his / her manager and jointly evaluate the dangers of the situation and the protective measures to be implemented as well as the necessary IPRs.
- if present in the room, cover spreading with inert (sand or synthetic adsorbents); <u>never</u> use paper or rags.
- It is forbidden to collect this material with bare hands without using protective gloves
- immediately advise the Qualified Expert for the remedial action necessary.



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4. MEASURES AND PRECAUTIONS TO ADOPT DURING EXECUTION OF WORKS OR SERVICES AT CROM

4.1.General behavioral measures

The inevitable presence of a high number of risk factors, of any health structure, which is a heterogeneous context where there may coexist a fair number of very different activities, with the consequent problems of protecting the health and safety of the present it is impossible to establish specific criteria and procedures for all possible situations.

However, it is considered appropriate to recall a number of general indications to which all external operators responsible for carrying out any type of work within the structures and areas of the CROM must comply:

It is argued that it is not possible to exclude cases in which a company's employees are operating together with other external firms (eg. construction sites). For this purpose, **before the work begins, the two companies will have to provide for mutual co-ordination** in accordance with current regulations, in particular Article 26 of Legislative Decree 81/08, **in order to avoid dangerous interference** (to be agreed directly their load, with the other companies involved, at the time, on site). In any case, the Contractor's staff in order to access and operate the buildings and the relevant areas of the CROM **must**:

- wear work clothes;
- be identifiable by name on the garment from the work of the company recognition card: it is recommended that compliance with the provisions of article 26, paragraph 8, of Legislative Decree 81/08 is recommended: all external operators must be equipped with a special identification card, with the obligation to display such card. No card template is established, but are required: photographs, general information of the worker and indication of the company / employer;
- agree on the timescales (days and times of access to Customer premises) with company references provided at the conclusion of the contract in order to avoid any interference with the activities of the CROM and / or third parties;
- view the emergency evacuation plans in close proximity to the places where the works will be carried out and must take a material view of the exits before the start of the activities covered by the trust:
- access the areas of the CROM by carefully following the dictates communicated to avoid any interference with pedestrian and / or emergency routes;
- all necessary precautionary and protective measures to protect the safety of workers during work (commissioning works, delimitations, fencing, signage, personal protective equipment, etc.) must be prepared and implemented before the beginning of the work, risks specific to those specifically identified by the Client for the purpose of eliminating interfering risks; therefore, before commencing a work, if necessary, it is necessary to encircle or otherwise delimit in a clear and visible way (using transitions, signposts, two-color ribbons, etc.) the working area, whether it is excavation or under construction, which takes place in positions elevated, or when there is a possibility of causing people to transit nearby and these must be kept at a distance;
- carry out their roles and maneuvers safely without damaging people or things.
- store the work material at the place indicated at the time of the award: storage of products and / or equipment at unidentified and unauthorized locations by the Customer is not permitted and, above



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all, it is forbidden to bundle with equipment, materials and / or equipment Exit routes and emergency exits and / or abandon materials and equipment that can be a potential source of danger in transit and work places (unless this is done with due authorization and under safe conditions) or in a balance position unstable (if this is indispensable, the presence must be duly reported);

- Timely dispose of containers, boxes, boxes, baskets, rollers, emptied pallets and waste
- Safeguard the handling of material and, if necessary, with the help of special carriers or accessories of the Contractor;
- When operating on plants and / or equipment and / or machinery, always consult the technical instruction manuals and / or technical references of the CROM before starting work and ensure that the machine / plant stop can not be injured 'physical safety of staff, visitors and does not affect the organization of individual sectors of the Commission. If it is necessary to stop the machine / plant, it must schedule the intervention with the technical and health reference of the CROM;
- comply with the prohibitions and limitations of safety signs, according to the instructions given by the specific monitor billboards (flammable deposit, protected area, biological contamination, suspended loads, etc.) outside the structures of the CROM: scrupulously follow the signs, signs, rules or procedures given by the personnel in charge of the purpose or displayed and taken by the CROM;
- It is mandatory to use the appropriate Personal Protective Equipment (PPE) provided by your employer for each work, as well as to use machines, tools and utensils that comply with the applicable law;
- Always use tools, tools and utensils that meet the applicable legal requirements;
- request the intervention of the Customer's contactor in case of anomalies found in the working environment and before proceeding with interventions in locations with specific risks;
- immediately report any deficiencies in safety devices or the existence of hazardous conditions (by working directly, in the event of urgency and within the limits of their powers and possibilities, to eliminate such deficiencies or hazards).
- in cases where it is necessary to remove voltage from parts of the electrical installation subject to repairs or repairs, or to interrupt the distribution of water, gas, etc. it is necessary to agree in advance with the staff of the Technical Structure;
- the custody of the equipment and materials necessary for the execution of the works within our offices is fully care and the risk of the contractor who will then have to fulfill its obligations;
- it is necessary to transmit to the CROM any changes relating to security not previously agreed;
- For emergency and / or emergency situations in general (eg fire, explosion, flood) and in the event of evacuation, it is compulsory to comply strictly with all procedures (fire, evacuation and first aid) provided by the present MOES staff and, however, abandoning the work area if necessary, following the appropriate emergency routes adequately prepared and reported, without causing any panic, not before turning off appliances and utensils, closed gas cylinders in use, etc.;
- Carefully follow the instructions on using mobile phones. For this purpose and in the event of any doubt or lack of reporting on this matter, request authorization from the CROM staff;

Remember that it is strictly **forbidden**:

- 1. intervene on the work being done;
- 2. Access restricted access to authorized personnel unless specifically authorized by the facility manager with special authorization, which includes prevention and protection measures;



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- 3. remove or tamper in any way the safety devices and / or protections installed on plants or machines or make any changes to machinery and plant owned by the CROM without prior authorization:
- 4. carry out, on their own initiative, maneuvers and operations which are not of their own competence and which may therefore also compromise the safety of other persons, machines, equipment, plants or other property of the CROM without prior authorization;
- 5. do welding work, use free flames or smoke in places with fire or explosion hazards and in all other places where there is a prohibition. For this purpose and in the event of any doubt or lack of reporting on this matter, authorization must be obtained from the CROM staff; it is considered appropriate to point out that, under current laws, there is an **absolute ban on smoking within ALL the closed spaces of the CROM**. In the case of welding or use of open flames, the prior written authorization must be requested from time to time to the CROM's contact person;
- 6. pedestrian crossings or carriages, corridors, escape routes, stairs, doors, safety exits, etc. with materials of any nature;
- 7. perform, on moving parts, any operation (cleaning, lubrication, repairs, registrations, etc.);
- 8. access, without specific authorization, to electric cabins or other places where there are live electrical systems or equipment, valves, pressure containers (cylinders), gas installations etc.;
- 9. access or stay in places other than those where you have to do your job;
- 10. make modifications of any kind to machinery and plant of the CROM without prior authorization;
- 11. to use, in the workplace, clothing or clothing that, in relation to the nature of the operations to be carried out, may pose a danger for the wearer;

It also states that:

- Hygienic services that can be used by the Employer's staff are reserved for users, appropriately reported and easily identifiable;
- Operational units and individual business sectors have a telephone for both emergency and business communications, with the permission of the CROM staff;
- For the use of cellular phones, care must be taken with regard to the information contained therein. For the purpose and in the event of doubt or lack of specific reporting, request authorization from the CROM staff;
- For technical problems, you can find the technical operators of the buyer's company. Ask the staff on site;
- Within the premises of the CROM the emergency exits must not be obstructed;
- It is absolutely prohibited to smoke and / or use free flames within the CROM environments and near accesses, as regulated by specific signage;
- It is forbidden to throw stubs, cigarettes and flammable materials near the areas of the CROM;
- It is forbidden for any employee of the CROM and the Contractor to take alcohol or drugs in any quantity during working hours or to appear at the offices of the CROM under the influence of alcohol or drugs.



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4.2 RESPECT FOR USERS

In the event of a variety of impediments occurring in the normal course of work, please refer to the Executives or Zone Counselors to report the problems encountered.

4.3 MAIN PRECAUTIONS TO ADOPT AGAINST INTERFERING HAZARD

4.3.1. MAIN PRECAUTIONS TO SAFEGUARDS YOUR HEALTH AND SAFETY

You should always be aware of the risks present in the place where you are going to do your work; if the activity to be carried out, according to the detailed criteria and indications in the existing contract, entails potential access to all premises and areas of the CROM, the existence of a particular risk within one of the above mentioned local or areas, it will be reported by a Structural Officer or a person in charge. If necessary, detailed information will also be given on the type of protection to be taken, In appropriate P.P.E. ..

It is advisable to immediately report any accidents that have occurred to your employees in the workings performed within the premises and spaces of the CROM.

In the event of an accident (eg. accidental contamination with biological fluids or chemical substances etc., done at the CROM) it is recommended that the operator of the Company immediately report the incident to the staff of the facility where the accident occurred, so that they can be undertaken necessary interventions, remediation and / or prevention actions; then, subsequently, alert or alert the Company's Health and Safety Executive and the CROM.



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4.3.1.0. Precautions against the biological risk

The intrinsic features of the working typologies at the facility, despite ongoing prevention and protection activities, can not exclude a potential risk of exposure to biological hazards. It is therefore recommended that non-sanitary personnel not approach and do not touch containers, syringes, vials, etc. without permission. and to report promptly any accidental contact or problem to the CROM personnel present on site.



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4.3.1.1. Precautions against chemical risk

- Always warn managers and managers of their workplaces
- Ensure the need to use specific PPEs to be provided by the CROM (unless otherwise provided by the contract) and / or to observe special access procedures
- Avoid touching objects and instruments that you do not know about, and in any case without the permission of the departmental / departmental executives
- During work, avoid contacting places, activities, people who are not planning to do so, in order not to be a nuisance or danger to them; pay particular attention to the execution of fire prevention instructions (see section specific to this document)
- Apply hygiene rules, avoiding to put your hands to the eyes or mouth, to eat and to smoke
- It is good practice to wear specific gloves during work, wash your hands after surgery, cover with scratches or patches or scratches or skin lesions
- Do not touch bottles and containers in the wards and laboratories
- Refrain from carrying out dangerous operations near containers containing chemicals and in any case within the laboratories of the CROM
- It is forbidden to use chemicals and products in the CROM departments

If the work to be carried out involves contact with hazardous substances, it is compulsory to wear the PPE provided by your Health and Safety Executive.



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4.3.1.2. Precautions against radiological risk

- Accessing venues rated at radiological risk only the sources have returned and the department manager from the consent to access
- Ensure the need to use any specific PPE that will be provided by the CROM (unless otherwise provided by the contract) and / or to observe special access procedures
- Avoid touching objects and instruments that you do not know about, and in any case without the permission of the departmental / departmental executives
- During work, avoid contacting places, activities, people who are not planning to do so, in order not to be a nuisance or danger to them; pay particular attention to the execution of fire prevention instructions (see section specific to this document)
- Apply hygiene rules, avoiding to put your hands to the eyes or mouth, to eat and to smoke
- It is good practice to wear specific gloves during work, wash your hands after surgery, cover with scratches or patches or scratches or skin lesions
- Do not touch bottles and containers of which you do not know the content and its hazard (always refer to the information on the product label) and nevertheless without the authorization of the department / service manager
- Refrain from performing dangerous operations near containing radioactive substances

4.3.1.3 Required to wear personal protective equipment

All external business operators, operators and other non-employees are obliged to make use of the individual protection devices defined in their respective safety plans during their stay in the CROM; in some cases, specific PPEs may be specified for access to particular environments: in that case, they will be provided by the customer.

It is possible to view the document for all PPEs adopted in the CROM at the Health and Safety Executive.



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4.3.2. MAIN PRECAUTIONS TO SAFEGUARD HEALTH AND SAFETY OF CROM PATIENTS AND STAFF

During the execution of works or supplies, you can realize:

- Risk of damage to dust production or dispersion (also following absorption and diffusion by ventilation systems): the danger is connected with demolition work, wall piercing, removal of suspended ceilings, furniture or other material, brushing etc;
- Noises for noise production: the danger is connected with the use of pneumatic hammer, demolition, small generator sets, hammers, chisels and debris discharge operations;
- Risk of unintentional interruption of service of the electrical system for the insertion of high power electrical equipment (which can cause the current to be disconnected from overload) or involuntary interruption of live cables during demolition or wall drilling;
- Damage to unintentional service interruption of technological installations (water and heat): during wall or installation demolition work the hot / cold water pipes (with any flooding) may be intercepted involuntarily;
- Risk of material damage during warehouse loading operations.

4.3.2.1. Precautions to be taken in case of works

It refers to compliance with the regulations on site security standards: the preparation of the POS, which must always be transmitted to the Design and Maintenance of Buildings and Plants, the drafting of the PSC, in the cases and terms provided by the decree, as well, always where provided, the PIMUS for use, installation and dismantling of scaffolding, etc.

In general, construction sites for maintenance and internal renovation departments will have to guarantee:

- the clear delimitation of site areas with the ban on access to visitors and in any case to unauthorized personnel;
- the maximum separation possible between the activities of the CROM and those of the yard, with particular reference to the introduction of dust, noise and vibration.

Particular attention must be paid to the presence of the air intakes of ventilation systems outside the building.



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4.3.2.1.1. Work in height

Access to cover areas outside the appropriate protection (railings, balustrades etc.) is allowed only to persons who are required to undertake the intended interventions authorized and only if they have suitable Individual and Collective Protection Equipment compliant with the applicable regulations.

4.3.2.1.2. Construction works not involving SOP editing

The following precautions should be taken in the case of construction works that do not include the preparation of a specific SOP (internal room renovation, technological upgrades involving fixed installation of machinery and / or installations):

- Take all the precautions provided in ANNEX II: (Guidelines for dust protection and dust dispersal during work and for the prevention of infections by Aspergilus)
- during work, if necessary, the Technical Structure is planned to shut off / disconnect the air conditioning, fire detection, medical gas etc, and ducts must be suitably protected;
- the intervention area must be completely insulated and enclosed with barriers extending from the floor to the ceiling, including any false ceilings;
- window sealing and / or other possible communication between the work area and adjacent health facilities must be guaranteed; any holes in the walls made during the work must be repaired by the same day or temporarily sealed;
- The air intake vents for the adjacent sanitary blocks must be protected by the installation of additional metallic networks and pre-filters and the scheduling of more frequent maintenance;
- a dedicated signage must be provided for visitors and staff so that the passage takes place away from the work areas;
- there must also be a suitable signpost for the workers' trails, in order to guarantee a range of respect, in particular to preserve the areas of access to healthcare buildings, and in any case not to pass through areas with dental attendance, limiting the maximum opening and closure of doors with relative displacement of air and dust;
- If possible, after evaluating the locations where the occupant needs to be carried out, a filter zone should be set where the technicians, leaving the work area, may be subjected to dust extraction and cleaning of the shoes, or in any case wear protective clothing and overkill caps so as not to pollute the areas that involve the presence of patients;
- precise areas for the storage of equipment used must be identified;
- schedules and timing of work must be accurately established and communicated to health care managers and / or referrals;
- the resultant material (rubbles, electrical equipment etc.) must be removed immediately in a well-defined way, avoiding dust dispersion, in closed containers or bags;

The work area must be adequately cleaned every day.



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4.3.2.1.3. Obligation to contain environmental pollution

The employer is obliged to comply with all the rules and precautions that avoid any environmental pollution of any kind:

- Powder containment obligation (see ANNEX II: Guidelines for dust protection production and dispersion during work and for the prevention of infections by Aspergilus);
- Exhausted materials or landfill must be placed inside containers; for example, in the case of replacement of filters, when transported to avoid unnecessary contamination in other areas, they should be contained in envelopes or sealed bags on which the material code is highlighted.

4.3.2.1.4. Connecting to the grid and / or work on the electrical system

If you need to use the CROM's power grid, agreements must be made in advance with the responsible and competent CROM technical staff.

It is possible to connect power devices of less than 2 Kw independently; for others, and in any case always in case of doubt, you should contact the Technical Structure.

It is however compulsory to contact the Technical Structure beforehand in case there is a need for operations that may result in the automatic switching of the switches for overload protection (insertion and startup of high power equipment) or differential (presence of water or high humidity from operations carried out) in laboratories where there are equipment which is indispensable to ensure the continuity of the supply of electricity (eg the refrigerating area).

Because of the possibility of ongoing activities, it may not be possible to disable all electrical systems globally, so there are likely to be live conductors in the areas affected by the work; consequently the Contractor's technicians will have to take all the precautions of the case especially when and if the demolition operations are to be carried out; during such work, the Contractor must be provided with special protection devices as well as suitable equipment for live cable detection even under trace. In the case of wire interception, the internal technical personnel must be alerted immediately.



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4.3.2.1.5. Walls drilling operations

The CROM is not always able to indicate the presence of pipes or electrical installations embedded in masonry.

Before performing holes in walls it is therefore necessary to:

- agree on the intervention with the Technical Structures;
- ensure, before drilling, the presence of pipes or electrical systems that are enclosed by appropriate instrumentation;
- that the firm has its own instrumentation that guarantees the quality.

4.3.2.1.6. Works on thermo-hydraulic systems, medical gas and air treatment

During the demolition, installation of equipment, plant remodeling according to technical specifications for the introduction of new technologies, it may be possible to accidentally catch hot / cold water pipes and gas-tight pipes.

In the event of liquid or gaseous fluids leaking, after airing the environments, it will be necessary:

- disassemble the pipes upstream or block the loss, for example by pressing the ends of the copper tubes;
- immediately alert the operators of the Technical Sector in order to limit the consequences and disadvantages;
- in the event of gas leakage, aerate the affected environments and take the measures specified in the Safety Data Sheets.

Before the demolition and / or installation operations, the workers must use suitable equipment to detect metal pipes under trace.

In the event of an accident or an emergency situation, the necessary precautionary measures (buffering leaks, fire extinguishing, disabling and removing, if possible, electrical equipment, etc.) must be taken before reaching the nearest exit to the area of works.

Use in the manufacture of flammable or combustible substances, if provided and authorized, shall be limited to the minimum necessary and operators shall be advised of the risks and caution to be taken; operators must have fire extinguishers in number and type appropriate to the type of substance used; the contractor company must still comply with the rules of DM 10/3/98 and ss.mm.ii ..

Any peculiarities and information on electrical, gas, fire and related risks will be provided by the contracting authority.



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4.3.2.1.7. Obligation to contain noise / vibrations

The Contractor must contain noise emissions within the limits compatible with healthcare; therefore, it will have to use machinery and equipment complying with the noisy emission control regulations in force at the time of work.

In the case of noisy processing, he assumes the burden of circumventing the environments by paneling and shielding, door closure and / or the adoption of measures to limit the propagation of sound waves in the premises used for health activities;

The upgrading and maintenance of equipment and construction work must be carried out in a modal manner with the least impact in terms of vibration; In case of inevitable use of means or equipment that causes significant vibrations, the contractor will have to agree with the CROM staff on alternative strategies such as deferral of work with respect to health activities or the transfer and / or reduction of surrounding health activities for all the duration of the work.

4.3.2.1.8. Waste management

It is the Contractor's obligation to contain the environmental impact of waste from work, demolition and supply of materials (packaging, etc.).

4.3.2.1.9. Obligation to contain fire risk

In the case of maintenance and refurbishment work, external firms must consider the following issues related to the execution of the works:

- Accumulation of combustible materials
- Obstruction of the exodus
- Fire-resistant doors opening

At the beginning of the working day, it is necessary to ensure that the exodus of people from the workplace is guaranteed; at the end of the working day, checks must be made to ensure that fire-fighting measures have been implemented and that work equipment, flammable and combustible materials are secured and that there are no conditions for triggering a fire.

Particular attention should be paid to places where hot work is carried out (welding or free flame use): a preventive inspection must be carried out to ensure that any combustible material has been removed or adequately protected against heat and sparks, portable fire extinguishers and , at the end of the activity, it is necessary to ensure that no residual materials and / or braces are left.

Flammable substances should be stored in a safe and ventilated place; when they are used, smoke and the use of free flames must be prohibited.

Unused gas cylinders can not be stored inside the workplace.

Particular precautions should be taken in the maintenance work on electrical systems and those for the introduction of fuel gas.



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4.3.2.2. Precautions to adopt in case of material delivery

Companies supplying the CROM with materials and products of various kinds must comply with the following provisions to prevent material falling during the unloading, transport and storage operations:

- The pallet used for loading the material must comply with applicable safety regulations and applicable technical standards (see ISPM 15 "Wood Packaging International Regulation EPAL)
- pallets should be handled with a forklift or pallet truck
- European pallets are: 120 cm long; width 80 cm; height 15 cm.
- The type of pallet (dried epal, storage, semi-dry, lightweight etc.) must be commensurate with the load carrying capacity; pallets used only if they are in good condition
- The pallet must hold the entire raised ground load of at least 15 cm
- When assembling pallets, use the method that guarantees the best stability and strength. The parcels should be stacked one above the other, because this is what gives the pallet maximum strength
- Pay particular attention to the loading of different size holes, as often the inaccuracy may not allow the correct load stability on the pallet, resulting in displacement during transport, loading and storage and risk of falling material with possible damage to the pallet present (operators, employees and people moving)
- Delivery / retraction of materials etc. must be agreed in advance and must take place at times when the presence of users is minimal.



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5. CONCLUSIONS

The CROM is required to comply with the following requirements:

- comply with the obligations specifically provided for by current legislation on health and safety at work;
- comply with applicable environmental legislation as applicable.

and to ensure:

- a proper attitude of the staff to replace those who do not respect their duties;
- the execution of works with capital, machinery and equipment owned and in accordance with current safety standards and good technical standards;
- to regularly carry out social security and insurance obligations.

In general, contractors in the performance of their duties will have to:

- Proceed carefully with the handling of materials
- Maintain a limited speed in moving with operating means
- Increase the visibility and identification of the media (eg with headlamps or flashing lights)
- Separate hazardous areas with transsexuals or the like
- Use where possible acoustic or visual signals
- Observe the road signs shown

The Institute requires compliance with all the provisions of this document.

The contractor must undertake to implement the provisions laid down and to provide the personnel involved in the contract, precise arrangements, instructions and appropriate information / training for safe access to the different environments and areas of activity of the CROM.



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ANNEX I:

Names and addresses of all professional figures who are authorized to provide safety information:

COMMITTEE'S SOCIAL REASON	NATIONAL INSTITUTE FOR THE STUDY AND THE CARE OF THE TUMORS " GIOVANNI PASCALE FOUNDATION " I.R.C.C.S. OF PUBLIC RIGHT F.C. 00911350635
REGISTERED OFFICE	Via Mariano Semmola - 80131 NAPLES CROM OPERATIONAL SEAT: Via Ammiraglio Bianco – 83013 Mercogliano (AV)

Chief of Empolyees: General Manager Dr. Attilio A.M. Bianchi

Health and Safety Executive ManagerEng. Francesco Florio

Tel. 081-5903806 E-mail f.florio @istitutotumori.na.it

Health and Safety ExecutiveEng. Fabio Florio

Dr. Alessia Salvetti

Tel. 081-5903806 E-mail spp@istitutotumori.na.it

Competent Physician: Dr. Simona Menegozzo

Tel. 081 5903646 Email simonamenegozzo@libero.it

Authorized Physician: Dr. F. Russo Spena

Tel. 081 - 5903380 E-mail f.russospena@istitutotumori.it

Qualified Expert:

Tel. 081 5903483 E-mail espertiqualificati@istitutotumori.it

Representative for workers:

Dr. A. Marfella E-mail a.marfella@istitutotumori.it

Dr. M. Napolitano E-mail m.napolitano@istitutotumori.na.it

Dr. Marco Correra E-mail m.correra@istitutotumori.it

PN Cecilia Cavaliere E-mail c.cavaliere@istitutotumori.it

Activity Carried Out: HEALTH - RESEARCH



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ANNEX II

Guidelines for the prevention of dust production and dispersion during work

1. INTRODUCTION

During construction and restoration work in the sanitary facilities it is possible to produce a lot of dust; This can also be contaminated by a ubiquitous fungus, Aspergillus spp, which has been isolated from unfiltered air, ventilation systems, horizontal surfaces, food and ornamental plants. Therefore, before the start of construction work, the likelihood that workers will be exposed to powders, possibly containing a high spore charge of Aspergillus spp, will have to be evaluated during the works, resulting in the need to develop a plan for prevent such exposures.

2. PURPOSE

The purpose of these Guidelines is to minimize the production of powders coming from renovating or construction activities in the Center and preventing them from spreading in areas where operators are present, particularly with regard to those at higher risk. Provide precise technical and preventive information to be included in the contract documents relating to the provision of services or works that may produce dust.

Identify functions and responsibilities for monitoring and verifying the correct application of these Guidelines.

3. APPLICATION FIELD

These Guidelines should be included in:

- Contract specifications of works, within which they are binding requirements
- Drafting of coordination plans during design and / or execution, within which they are binding requirements
- They must be used as:
- Technical operational reference for staff performing the work
- assessment reference on the work of contracting firms in the CROM
- organizational / management address for the Structural Managers involved



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4. WORK CLASSIFICATION.

Hospital construction work can be classified in:

- works outside the structure: these are essentially works of building new pavilions or overhangs, as part of specific expansion projects; they are mostly works of great magnitude and duration
- works inside the structure: in renovations affecting the departments or services of the facility. an assessment scale of the possibility of producing dust from a construction site can be intuitively constructed on the basis of the magnitude and duration of the work itself, assuming that these parameters increase even dust exposure; Obviously, further exposure risk indicators are the performance of such work in active departments or services (with simultaneous presence of operators and users) or inactive ones and whether or not access to the site from the outside is possible.

The greater the risk would be for:

- demolition and / or restructuring of a whole non-active sector
- demolition works carried out in active or inter-active areas when demolition involves a large area or when the duration of the work is greater than two days
- works of any magnitude and duration that involve departments at higher risk
- works that involve the shutdown of aeroulic systems
- decorative / varnishing works involving surface shaving / scrapping> 10 sqm

5. PREVENTIVE MEASURES

They consist essentially of measures for:

- reduce dust production at construction sites
- contain the dust dispersion from the yards
- reduce operator exposure to site dust



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5.1 MEASURES TO REDUCE POWDER PRODUCTION IN PLANTS

5.2 MEASURES TO CONTAIN POWDER DISTRIBUTION FROM PLANTS

They are borne by the Operators of the Company and concern any type of dust-producing work on any site, both external and internal:

- 1. The surfaces of areas destined for demolition or any other work that produces dust must be moistened during the activities; likewise, all the inert materials must be thoroughly wetted away, subject to caution for possible risk of liquid presence;
- 2. The rubble must be removed at the end of each working day, using the centers of the center only when there is no other viable alternative.

These measures are also borne by the operators of the companies and vary according to the type of work depending on whether the site is external or internal to the structure, and in the latter case, in active or inactive departments.

5.2.1 Behavioral rules for workers

- staff working on site **outside** the facility can not have access, in work clothes, to the indoor areas of the facility used by users or staff
- staff working **on site yards** must limit as much as possible access to the indoor areas of the facility used by users or personnel in work clothes, especially if they are clearly contaminated; such personnel must be clearly recognizable by users and healthcare workers wearing clothing and identification cards that allow the identification of the company they depend on.

5.2.2 Measures for external shipyards

Typically, these are great work and durability.

- Construction site areas must be delimited by appropriate dust containment systems, with non-flammable and leakproof material, both on the ground (up to 2 mt height) and long scaffolds and scaffolds where a lot of dust is produced
- Any external slides for draining the inertia must be closed, perfectly sealed at the points of connection between the elements; landfill discharges must be in a sealed cage or any other system that ensures the containment of the dust as much as possible, a thorough cleaning of the construction site must be carried out at the end of each working day, removing all the debris and other residues after having abundantly dampened them

Typically, these are great work and durability.



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5.2.3 Measures for internal yards

5.2.3.1 Measures for greater internal construction sites

- The area of the inner yard must be sealed with maximum dust retaining systems, especially if the premises are completely insulated, as is the case with the renovation of an entire ward, in the entry / exit areas of the yard, / rugs to always keep moist; in high-risk departments it is imperative to set up a real anteroom at the yard site. The site access path must be as separable as possible from the most transitory areas of staff.
- The windows and doors of the site must be kept closed at least during the production of dust-producing activities, the passage points of the hydraulic and electrical systems and the ventilation openings in the yard site.
- Prevent external scaffolding or winches for handling the material. In cases where removal of the rubble can only take place using the internal paths, the ones with a lower risk for the patients should be identified by using lifts for the exclusive use of the yard (and by indicating the provisional use with visible signs at the door of the and only if this is not possible, it will be possible to allow the transit of hermetic trolleys, with prior agreement (prior to or after the most intensive health care activity) and on routes, which will be as short as possible and subject to continuous and immediate cleaning.
- If the work is carried out near the outer joints of the UTA of aeroulic systems, it is necessary to ensure the implementation of the most tight barriers around the yard, to periodically check the contamination status, to clean the outside of the air vents and replace the filters and possibly check the air quality of the plant used.



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5.2.3.2 Measures for smaller internal shipyards

This type of work includes a whole series of works for which a real yard is not normally prepared, but there is a need to put in place precise arrangements to contain the dust produced:

- Insulate the area as much as possible;
- In the entrance / exit areas of the yard should be placed towels / rugs to always keep moist.

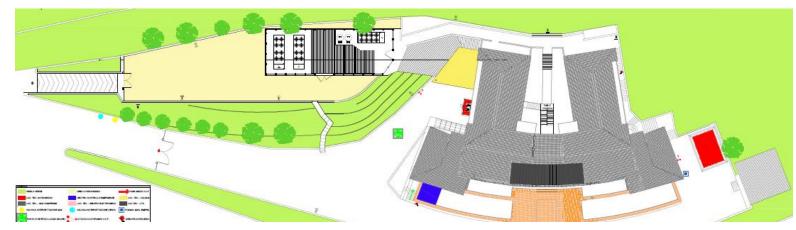


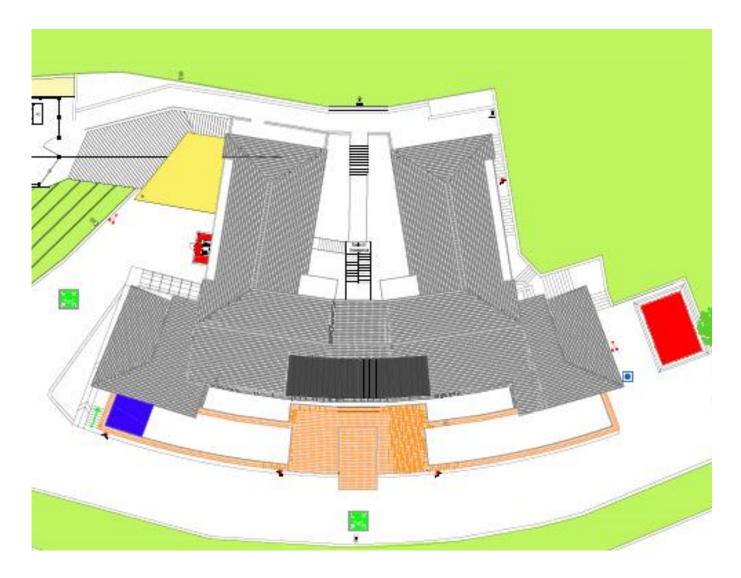
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ANNEX III Planimetries CROM – Internal viability







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SPECIFIC RISKS AND

MEASURES

INFORMATION DOCUMENT ON October 2017 PREVENTION AND EMERGENCY

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ANNEX IV - Acceptance and receipt of the information document.

INFORMATIVE DOCUMENT FOR SUPPLIERS, SELF-EMPLOYEES WORKERS, SERVICE PROVIDERS AND OTHER NON-EMPLOYED OPERATORS WORKING AT THE I.N.T. CROM "ONCOLOGICAL" RESEARCH CENTER OF MERCOGLIANO" - IRCCS G. PASCALE FOUNDATION

OBJECT:			
CONTEST			
- ORDER NDATE	REF.		
THE UNDERSIGNED			
BORN IN ON			
FISCAL CODE			
IN QUALITY OF COMP	COMPANY		
BASED IN			
VAT NUMBER			
and will inform its employees that they will apply it. The information document (REV 05 of October 2017) was consulted http://www.istitutotumori.na.it/lstitutoPascale/DocUnicoValutaz			
(Location and date) (Sta	(Stamp and Signature of the declarant)		
N.W. This document must be courteously returned by the Contracto within 7 days of the date of receipt; in the event of a non-return with the receiver will be interpreted and considered as implicit acceptanthe document referred to in the terms and for the effects of art. 26 are	hin the afoce and co	prementioned period, the silence of onsideration of what is contained in	
PLEASE SEND THE PRESENT DOCUMENT TO:			
□ Director of SC Property and Services Management	fax	081 5903842	
□ Director of Research Administration SC	fax	081 5903827	
□ Director of SC Planning and Building Maintenance and Installation	ns fax	081 5903807	
Tumors Institute of Naples – Pascale Foundation – Via Mariano Sen	nmola – 8	0131 Napoli	