

**Environmental and Social (ES) requirements  
Government of Romania  
Ministry of Health**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN  
FOR NEW BUILDING OF  
TIMISOARA BURN CENTER**



**August 2020**

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## **ABBREVIATION**

CFCs	Chlorofluorocarbons
EA	Environmental Assessment
EEE	Electrical and Electronic Equipment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELVs	Emission Limit Values
EMP	Environmental Management Plan
GD	Government Decision
GEO	Government Emergency Ordinance
GO	Government Ordinance
ISO	International Organization for Standardization
HCFCs	Hydrochlorofluorocarbons
HTA	Health Technology Assessment
LEPA	Local Environmental Protection Agency
LTC	Long-Term Care
M&E	Monitoring and Evaluation
MO	Ministerial Order
MoH	Ministry of Health
NAMMD	National Agency for Medicines and Medical Devices
NCD	Non-Communicable Disease
NCNAC	National Commission for Nuclear Activities Control
ODS	Ozone-Depleting Substances
PCB/PCT	Polychlorinated biphenyls and polychlorinated terphenyls
PMU	Project Management Unit
RSA	Radiologic Security Authorization
RSN	Radiologic Security Norms
TRC	Technical Review Committee
SCJUT	County Emergency Clinical Hospital "Pius Brinzeu" Timisoara
UWWT	Urban Waste Water Treatment
VOC	Volatile Organic Compound
WB	World Bank
WEEE	Waste Electrical and Electronic Equipment

# 1. INTRODUCTION

## 1.1 BACKGROUND

This project, Health Sector Reform (HSR) - Improving Health System Quality and Efficiency Project, aims at strengthening prevention and health promotion, rationalizing the health service delivery, increasing secondary specialized ambulatory services, and promoting the implementation of clinical pathways for the most prevalent non-communicable diseases (NCDs). To achieve this over a six-year period, this operation has focused on three main areas: (a) rationalization of the health facility network; (b) strengthening of prevention, health promotion, and the primary care level; and (c) improvement of health sector governance and stewardship. The project is being financed by the World Bank (WB) and is being managed centrally by a Project Management Unit (PMU), within the Ministry of Health. As a part of a level II project restructuring, a fourth component on “Strengthening of Public Health Emergency Response to COVID-19” will be included in this project. This component will support the Government of Romania in the acquisition of medical equipment for triage, intermediate and intensive care units in COVID-19 hospitals; and purchasing of laboratory equipment and kits to expand testing and early detection of COVID-19.

The project will establish an order of priority of the works to be carried out, starting with the medical units in possession of an operating license.

The four project components are the following:

1. **Strengthening Health Service Delivery**
2. **Public Health Sector Governance and Stewardship Improvement**
3. **Project Management, Monitoring and Evaluation**
4. **Strengthening of Public Health Emergency Response to COVID-19**

Activities under the first component of the Project, **Strengthening Health Service Delivery**, will focus on access and quality of selected key services (life-saving services and screenings). Specifically, this component would strengthen key hospitals that will become the backbone of the hospital network and improve cancer screening network through the provisions of goods, works, non-consulting services, consultants' services and training in support of the following activities: (a) improving life-saving medical services, such as medical services in the operating rooms, intensive care units (including Advanced Surveillance and Treatment Units for Critical Cardiac Patients – USTACC), burn units, radiotherapy units/centers, as well as emergency services (including emergency telemedicine systems) and medical imaging diagnosis services. Performing works of rehabilitation and new constructions for four large medical units, as well as reorganization of their medical flows; performing various rehabilitation works for other existing medical units; (b) improving cervical cancer screening network by supplying mobile units for cervical cancer screening, and by strengthening the technical capacity of the regional pathology and cytology laboratories. ,

The second component, **Public Health Sector Governance and Stewardship Improvement** , aims at improving sector governance and stewardship of the MoH and other relevant governmental institutions to bridge the gap between policy and practice and to strengthen the capacity of improving the quality of medical care services through the provisions of goods, non-consulting services, consultants' services and training, through the following activities: (a) adapting evidence-based standards and protocols; (b) strengthening and supporting the implementation of health technology assessments (HTA); (c) strengthening the capacity of the health sector to conduct surveys and studies, and make evidence-based health policies; (d) supporting selected national health programs to move the focus toward preventive care and promotion of health services among the population; and (e) strengthening the communication strategy of the MoH to inform the general public on reform program and expected outcomes.

The third component, **Project Management, Monitoring and Evaluation**, includes support to the MOH and the Project Management Unit (“PMU”) in Project management and implementation, including fiduciary tasks, monitoring and evaluation and reporting through the provisions of goods, non-consulting services, consultants’ services, training, auditing and incremental operating costs.

The fourth component, **Strengthening of Public Health Emergency Response to COVID-19** will support the Government of Romania in the implementation of selected activities to respond to the COVID-19 outbreak. The Government’s plan focuses on strengthening the country’s capacity for early detection of cases and the development of the network of public health laboratories; reorganizes health service delivery to implement patient triage and establish COVID-19 related services in COVID-19-specific facilities; expands public health surveillance and active monitoring of people exposed to COVID-19 patients; and strengthen the capacity of COVID-19 facilities. Specifically, the component will finance the following activities: (i) acquisition of medical equipment for triage, intermediate and intensive care units in COVID-19 hospitals; and (ii) purchasing of laboratory equipment and supplies to expand the detection of COVID-19. It will be financed through a reallocation of US\$77 million (EUR70 million equivalent) from Component 1.

The main physical investment components of the Health Sector Reform - Improving Health System Quality and Efficiency Project are:

- a. rehabilitation of intensive care units
- b. rehabilitation of operating (surgery) rooms
- c. rehabilitation of emergency departments
- d. improvement of Diagnostic Imaging Services
- e. creation of 4 new burn units (with about 6 beds each within a regional hospital)
- f. development of regional radiotherapy units
- g. establishment of hub centers for ambulatory diagnostic and treatment
- h. community care centers.

## 1.2 RATIONALE FOR PREPARATION OF ESMP

An Environmental and Social Management Plan (ESMP) outlines the mitigation, monitoring and institutional strengthening measures to be taken during project/sub-project implementation and operation phases to avoid or eliminate negative environmental/social impacts. For projects/sub-projects of intermediate environmental risk (Category B) an ESMP may be an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental/social impacts.

The present ESMP outlines environmental impacts and mitigation measures related to the construction of new building for **Timisoara Burn center** subproject. This Environmental and Social Management Plan (ESMP) is based on the Environmental and Social Management Framework (ESMF) for the project consistent with Environmental Assessment (OP 4.01) requirements that has been prepared and found satisfactory by the World Bank. The ESMF covers procedures and mechanisms that will be triggered by HSR to comply with the World Bank Policy 4.01 Environmental Assessment, and with the legislation and normative and legal acts of Romania governing the preparation and implementation of environmental, social and health and safety requirements. Public consultations for the ESMF were held in Bucharest and the final ESMF document in both Romanian and English languages was disclosed in country and on the Bank Infoshop in February 2014.

The project beneficiary prepared this site specific ESMP in order to identify, avoid and/or minimize, mitigate or compensate potential impacts of project components on the natural and social environment in a way consistent with both national legislation and WB OPs.

The ESMP covers the following key areas: national and WB rules and procedures; environmental screening of the proposed sub-projects; description of key potential impacts and mitigation measures; requirements for monitoring and reporting; public consultations. It would support:

- inclusion of ESMP follow-up procedures in the operational processes of PMU, of MoH, and the selected hospitals;
- highlighting the ESMP follow-up responsibility in the job description of the MoH inspectorate staff;
- training of designated staff from the hospitals participating in the project as well as from PMU in project implementation;
- site-specific environmental screening concerning all project supported activities for the rehabilitation of the hospitals;
- monitoring and evaluation of mitigation measures identified in the site specific reviews; and
- inclusion of Environmental Guidelines for ecological planning and design of hospital buildings in the Design Standards and Manual.

The required mitigation measures and issues to be addressed through this ESMP and its instruments for the project activities are standard and widely used in construction practices. These include proper waste management and disposal of construction debris (including if the case asbestos), proper wastewater treatment; heating and fuel system assembly, dust and noise control, sensitivity of designs to cultural settings, and cultural heritage/chance finds procedures. In practice, these issues will be addressed through a series of local permits detailed in the environmental framework review, through contractor site supervisor oversight, through the local municipality requirements, and through the unit ( PMU ) in the MoH responsible for the objective facilities and rehabilitation.

Each activity to be financed under HSR will be reviewed for safeguards risks in line with OP4.01 and must obtain the clearances required by Romanian national regulations.

ESMP requirements will be included in the bidding and contract documents as integral part of both construction execution and technical supervision phases.

It will also allow ensuring environmental and social sustainability of activities throughout their implementation cycle and to provide the PMU Department in Ministry of Health, both engineering and technical staff and consultants with adequate institutional, normative and technical framework for the processes and procedures that should be observed during the subproject implementation:

### 1.3 PROJECT CONCEPT

The main objective of this project is to improve the accessibility, quality and efficiency of health services in Romania. The Ministry of Health has identified the hospitals that will be part of the strategic network on which investments will focus, in accordance with its vision of development and prioritization of investments in the health sector for 2014-2020, which includes the **County Emergency Clinical Hospital Pius Brinzeu” Timisoara (SCJUT)**. Some specific objectives for the current project are:

- a. Construction of a new building, to house both the diagnostic platforms (within the UPU-SMURD and the radiology-imaging service) and the intervention platforms (within the UPU-SMURD, the operating room, the intensive therapy units, Burn center), which currently operates in several hospital buildings, thus improving these medical services that will function more efficiently by integrating them into a single construction.
- b. Carrying out the subsequent rehabilitation works of some of the existing bodies of the hospital, in which the spaces that will serve the medical services in the new building will be rearranged.
- c. Modernization and improvement of the existing medical facilities and equipment of the hospital, on the one hand by maintaining and relocating those in good working order, recently acquired and, on the other hand, by purchasing new generation medical equipment to complete the facilities , where necessary in the new building.

## 2. LEGAL AND ADMINISTRATIVE FRAMEWORK

### 2.1 NATIONAL FRAMEWORK

**A. Environmental Regulations & Standards.** This section briefly describes the main existing environmental regulations and standards relevant to the project and makes reference to institutions at the local and national levels responsible for issuing permits, licenses, and enforcing compliance of environmental standards.

The national authority for the environmental protection is the Ministry of Environment through its National Environmental Protection Agency (NEPA) and its local branches - Local Environmental Protection Agencies (LEPAs) operating in each County in Romania.

The main legislative body is defined by the Government Emergency Ordinance 195/2005 for environmental protection, as subsequently modified, and other organic and major laws on various domains, International Conventions and treaties signed and ratified by Romania, different governmental decisions or ministerial orders with relevance to environmental protection

A more comprehensive list of the legal and institutional framework is provided in Annex 1.

Agencies (entities) proposing new investment projects that are likely to have a significant environmental impact have to apply for environmental agreement. This might be awarded only after a serious environmental impact assessment accomplished by accredited experts and accompanied by a public debate. Potential impacts, mitigation measures and the necessary monitoring system should be outlined in this process. After project commissioning, an environmental authorization is also required. This might be issued after LEPA staff verified the compliance with environmental agreement provisions. Without these certificates, the proposed activity is not allowed to proceed. Awarding of environmental agreement is made simultaneously with other needed approvals, but the environmental authorization is preceded by obtaining of other approvals (for telecommunication utilities, for natural gas network, for electric power, from the Fire Commandment, etc.), the Water Permit being the most important one.

As part of the approval process, the environmental permit could contain mitigation measures and a monitoring plan for measurement of various pollution parameters to be observed during the construction period, and further on the operation phase. Data must be registered and made available for LEPA or other responsible agencies.

**Environmental Impact Assessment (EIA).** The accomplishment of full EIA on which basis the environmental agreement would be issued, is mandatory for all activities listed in Appendix I of the GD no.445/2009 on the framework procedure for environmental impact assessment for certain public and private projects, as well as all projects proposed for the coastal zone and those proposed in protected hydro-geological areas. Projects listed in Appendix II of the same normative act, projects proposed within a natural protected area and those designated for the management of the natural protected areas are subject to the screening procedure. The result of the screening procedure is a decision based on which the project is further subject to the EIA or not. The current regulations require that the information provided by the developer of the EIA process shall include the measures envisaged in order to avoid, reduce and where possible, offset the significant adverse effects.

The EIA procedure comprises a mandatory involvement of the public and the public authorities with environmental protection responsibilities. The public comments are taken into account in the EIA procedure. The public authorities with environmental protection responsibilities are always involved in the Technical Review Committee-which is mandatory required by the national EIA procedure.

In conformity with Emergency Ordinance for Environmental Protection No.195/2005 including the respective updates - the Governmental Decision No. 445/2009, and the MO No. 863/2002 and 135/2010, the decision-making process of the EIA regarding the issuance of the Environmental License to construct

and the Environmental Permit to operate is well developed. The Environmental Protection regulation sets out the EIA requirements and principles; the GD 445/2009 sets out the procedures, while the OM 863/2002 and 135/2010 present in detail the procedures for EIA and for issuing the environmental license.

Inspection and enforcement responsibility for applicable laws for hospital facilities is the responsibility of the structures developed at level of MoH and Hospitals. Capital Investment Directorate of the MoH and economic/administrative structures of hospitals are in collaborations, and on issues related to capital investments implementation MoH departments coordinate the implementation.

The proposed investments are not expected to trigger a need for a full EIA under Romanian law (EGO 195/2005).

## B. Social Legislation and Policies

The Romanian legislation does not require a social assessment for investment projects, nor is this a requirement for issuance of any permit. The main acts of legislation, by-laws and government policies relevant to social impact assessment applied for this ESMP are listed in the below table:

**Table 1. Social policies at the level of Romania**

Law	Purpose
Law No. 53/2003 - Labor Code	The legal act regulates individual and collective employment relationships, the enforcement of the regulations regarding employment and the labor jurisdiction.
Law No. 319/2006 – Occupational Health and Safety	The law provides the general framework for health and safety at the workplace , roles and responsibilities, monitoring bodies.
Law no. 481/2004 regarding the civil protection	Envisions an integrated set of specific activities, measures and organizational, technical, operative, humanitarian and public information tasks, planned, organized and realized in order to prevent and reduce risks of disasters; protection of population; goods and environment against the negative effects of emergency situations.
Law No. 448/2006 regarding the protection and promotion of the rights of disabled persons (republished in 2008)	Regulates the rights and obligations of disabled persons granted for the purpose of their social integration and inclusion.
Law no. 202/2002 regarding the Equal Opportunities of Women and Men	Regulates measures to promote equal opportunities and treatment between men and women, to eliminate all forms of discrimination based on gender in all spheres of public life in Romania.
Law no. 544/2001 regarding the free access to information of public interest	The law outlines the transparency principles for public administration, providing free and unrestricted access of citizens to information of public interest, defined as such by this law; it constitutes one of the fundamental principles of the relation between persons and public authorities, in accordance with the Constitution of Romania and with the international treaties ratified by the Romanian Parliament and



Law	Purpose
	Government.
Law no.50/1991 regarding the permitting for execution of construction works	The law defines the process for permitting construction, rehabilitation, extension, demolition works and includes provisions for the assessment of neighboring properties, consultation and consent of neighbors, where the project is expected to impact the near-by properties, as defined by technical norms.
GD no. 907/2016 regarding the technical and economic documentation for public investments	The governmental decision defines the elements and steps for elaborating the technical documentation for investments financed from public funds, including requirements to assess impact on cultural heritage buildings, near-by properties, measures to protect neighboring properties, etc.
Law no. 10/1995 regarding the quality assurance for constructions	The law defines the roles and responsibilities that apply in assuring that construction norms and standards are applied in buildings, including access for disabled persons, the use of environmental friendly materials, gender dimension, etc.
Law no. 233/2002 for the approval of GO no. 27/2002 on regulation of petitioning rights of citizens in relation to public institutions	The law defines the principle related to the rights of citizens to submit petitions to public authorities and the procedures and responsibilities for recording/ answering/ solving the raised concerns, questions or suggestions of citizens.
Social Assistance Law (292/2011)	The legal acts sets out the key social security benefits and social services that are applicable to vulnerable groups in Romania.
Law no. 350/2001 regarding spatial planning and urbanization	The law defines the roles and responsibilities in relation to urban planning in Romania.
Law no. 287/2009 – The New Civil Code	The New Civil Code in Romania provides indication and regulation on access to neighboring properties, rights for compensations, principles of good-faith vicinity.

### C. Guidelines Governing COVID-19 Activities

The WHO is maintaining a website specific to the COVID-19 pandemic with up-to-date country and technical guidance<sup>1</sup>. As the situation remains fluid it is critical that those managing both the national response as well as specific health care facilities and programs keep abreast of guidance provided by the WHO and other international best practice. The following WHO guidelines related to COVID-19 outbreak are used in internal orders by the Ministry of Health of Romania.

- WHO / 2019-nCoV / Surveillance Guidance / 2020.3 Global Surveillance for human infection with novel coronavirus (2019-nCoV) Interim guidance v3 31 January 2020, [https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-\(2019-ncov\)](https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov))
- Novel Coronavirus (2019-nCoV) technical guidance: Early investigations <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technicalguidance>
- Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms and management of contacts Interim guidance 20 January 2020: [https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)
- Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected Interim guidance 28 January 2020: [https://www.who.int/publicationsdetail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publicationsdetail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected)
- Novel Coronavirus (2019-nCoV) v2 Operational Support & Logistics Disease Commodity Packages: [https://www.who.int/docs/default-source/coronaviruse/dcp--ncov.pdf?sfvrsn=f5fe6234\\_6&download=true](https://www.who.int/docs/default-source/coronaviruse/dcp--ncov.pdf?sfvrsn=f5fe6234_6&download=true)
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### 2.2 WORLD BANK SAFEGUARDS POLICIES & PROCEDURES

The major document regulating the WB environmental safeguard policy is OP 4.01 Environmental Assessment, which is one of ten safeguard policies that the projects submitted for the Bank financing are to comply with.

Ten safeguard policies and the additional policy on *Access to Information* represent the framework of safeguard mechanisms applied by the WB for the sake of interests of beneficiaries, clients, stakeholders and that of the Bank. Applying these policies allows avoiding adverse impacts on the environment and people's lives, minimizing and mitigating potential unfavorable environmental and social project impacts.

1. Environmental Assessment (OP 4.01);
2. Natural Habitats (OP 4.04);
3. Pest management (OP 4.09);
4. Physical Cultural Resources (OP 4.11);
5. Forests (OP 4.36);
6. Safety of Dams (OP 4.37);
7. Involuntary Resettlement (OP 4.12);
8. Indigenous Peoples (OP 4.10);
9. Projects on International Waterways (OP 7.50);
10. Projects in Disputed Areas (OP 7.60);
- +1. Access to Information

The first six policies are environmental policies and they are taken as focus during preparation of the Environmental Assessment. The seventh and eighth are social and the ninth and tenth are legal.

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<sup>1</sup> <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

The objectives of 10+1 safeguard policies are to:

- a) Avoid negative impacts where possible; otherwise minimize, reduce, mitigate, compensate;
- b) Match level of review, mitigation and oversight to level of risk and impacts;
- c) Inform the public and enable people to participate in decisions which affect them;
- d) Integrate environmental and social issues into project identification, design and implementation.

### **Principles of OP 10+ 1:**

- ✓ In case of discrepancy between the requirements of OP 10+1 and those of the national legislation norms, the more stringent ones prevail;
- ✓ In case of conflict between the OP 10+1 and the national environmental requirements, the WB policies will prevail (even if some parts of the project are financed by the Government of Romania or third parties).

The legal basis for such approach is the Agreement ratified by the Romanian Parliament, which carries the force of an international treaty and prevails over the national legislative acts.

The major requirements of the environmental policies are stated in the Annex 2.

### **2.2.1 Safeguard OP 4.01 Environmental Assessment (EA)**

The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The Bank classifies the proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

**Category A:** A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. EA for a Category A project examines the project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the "without project" situation), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. For a Category A project, the borrower is responsible for preparing a report, normally an EIA (or a suitably comprehensive regional or sectoral EA).

**Category B:** A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other natural habitats--are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases, mitigation measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than that of Category A EA. Like Category A EA, it examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

**Category C:** A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.

**Category FI:** A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.

### **2.2.2 Social Impact assessment**

In addition to environmental aspects, social impacts should be considered. These are gender and conflict sensitivity. While these do not fall under safeguards, yet are critical to successful implementation of the project. It is critical to ensure equal participation, consideration and reflection of interests and opinions of women throughout the project implementation.

Conflict stressors (long-term structural conditions) and triggers (short term events) have to be identified. Conflict stressors and triggers include but are not limited to the following: low level of public trust in local authorities, demographic growth, and struggle for limited resources.

### **2.2.3 Project category and safeguards triggered**

The project will not finance any activities with significant or irreversible environmental impacts, and therefore has triggered the **WB environmental safeguard policy OP 4.01**, with classification as Environmental Category "B" – partial assessment. The main project interventions refer to the rehabilitation and limited new construction of hospital buildings all over the country.

The project will not finance Category-A activities or activities that target natural habitats or protected sites, and will prohibit those activities that can cause a significant loss or degradation of any significant natural habitat. The environmental screening process will check for the presence of physical cultural resources. In addition, cultural heritage/chance find procedures will be included in all works contracts.

### **2.2.4 Other Safeguard Policies.**

The project also triggers **OP/BP 4.11, Physical Cultural Resources**, and the ESMF includes requirements for the borrower and contractors, as reflected in this site-specific ESMP. These refer to specific measures necessary to be taken for complying with Romanian laws and procedures related to the physical cultural resources, and with the World Bank's requirements for managing impacts on cultural property.

Romania has a well-developed cultural heritage protection system with responsibility for monitoring and enforcement conducted by the Ministry of Culture (MoC). The legal framework for cultural preservation is outlined in the Law for Preservation of Historical Heritage No. 422/2001, as amended by several subsequent acts, lastly by the Governmental Ordinance No. 10/2016.

If any cultural assets are found during construction (excavation) works ("chance finds"), the measures outlined in the Law 422/2001 will be undertaken, including the setting up of a protection zone in compliance with the Law 422/2001, reporting to the local offices of MoC, and obtaining a special permit for the execution of works in connection with the found cultural assets.

**The World Bank Group's Environmental Health and Safety (EHS) Guidelines.** The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The World Bank Group requires borrowers to apply the relevant levels or measures of the EHS Guidelines. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects will be required to achieve whichever is more stringent. In the case of this Project, the General EHS Guidelines apply. The PMU will pay particular attention to the following General EHS Guidelines:

- a. EHS 1.5 – Hazardous Materials Management;
- b. EHS 2.5 – Biological Hazards;
- c. EHS 2.7 – Personal Protective Equipment (PPE);
- d. EHS 2.8 – Special Hazard Environments;
- e. EHS 3.5 – Transportation of Hazardous Materials;
- f. EHS 3.6 – Disease Prevention;

- g. WBG Environmental, Health, and Safety Guidelines for Health Care Facilities.

## 2.3 INSTITUTIONAL & IMPLEMENTATION ARRANGEMENTS

### 2.2.1 Overview

The project's investments will be managed by a special department within the Ministry of Health ( MoH ) – Project Management Unit ( PMU ).

The other departments of the MoH – i.e. IT Department, Capital Investments Department, Budget Division, etc. --have specific and limited responsibilities related to management of investment components of the project.

PMU has detailed TOR for project management, and is staffed, among others, with procurement specialists and civil works engineers who will be primarily focusing on the Hospitals UPU Sub-Component.

PMU has created monitoring arrangements for environmental aspects of the approved projects during the whole project lifecycle. During project implementation, PMU has the overall supervision responsibility for ensuring that the measures indicated in the ESMF/ESMPs are being properly performed.

The PMU in collaboration with the local authorities of the selected objectives, is performing the environmental monitoring during both, construction and operation phases, as specified in the monitoring plan of the ESMPs. The project is relying on the Romanian laws (fully aligned with the EU environmental acquis) governing the process for environmental permitting and review.

Major issues concerning project implementation challenges (e.g. revisions to the list of pre-selected Hospitals etc.), including the ones related to the environmental performance of the projects portfolio, have to be resolved through the sector's existing coordination systems, with the support of the PMU .

The ESMP will be monitored by a specialized supervision and project management consultant, as part of the overall supervision services for each site, during construction stage. Thus, each periodic monitoring report, will include a specialized chapter dedicated to Environmental and Social Supervision and Performance, which shall include the following:

- the results of the field supervisors screening and review procedures;
- a description of any operations not currently in compliance with environmental requirements as per its corrective action measures and of the actions PMU through the consultancy supervision firm, or directly, has taken or intends to take to correct the situation.

Appropriate training on Bank safeguards will continue to be provided under the Health programme to local officials, contractors, and community representatives. The Bank's supervision of the project will include a special mid-term review of construction contracts financed by MoH in this period to post-review the application of environmental safeguards and attention to environmental issues.

***Establishment of Environmental Expertise within PMU .*** Technical Specialists within PMU is responsible for full coordination and supervision of the environmental plans and risk mitigation measures undertaken within the project. The Specialists will work in close coordination with supervision project coordination staff and technical staff in hospitals and will:

- a) coordinate environmental training for staff, designers and local contractors;
- b) disseminate existing environmental management guidelines and develop guidelines in relation to issues not covered by the existing regulations, in line with the Bank and EU standards for implementation, monitoring and evaluation of mitigation measures;
- c) ensure that contracting processes for construction works and supply of equipment include reference to appropriate guidelines and standards; and

d) conduct periodic site visits to inspect and approve plans and monitor compliance.

## 2.2.2 Grievance Redress Mechanism

Communities and individuals who believe that they are adversely affected by a WB supported project may submit complaints to existing institutional redress mechanism including the MoH 's Public Relations Department or the WB's Grievance Redress Service (GRS).

**Institutional channels:** the right to petition is guaranteed by the Romanian Constitution. The petition-related procedure is regulated by the Government Ordinance no. 27/2002, approved by the Law no. 233/2002 and other regulations in the field.

The petitions may be submitted to the MoH Public Relation Department:

- by post to: Str. Cristian Popișteanu, nr. 1-3,, Bucharest
- by fax: +40 021 3072 513
- By phone : +40 021 3072 695
- by e-mail: [relatii publice@ms.ro](mailto:relatii publice@ms.ro)
- by delivering them in person to the MoH Registry

**World Bank GRS:** the GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. The project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

### 3. SUB-PROJECT DESCRIPTION AND SCOPE OF WORK

#### Description of the Site

##### General description of Works

The land on which the proposed project will be developed is located on 156 Liviu Rebreanu Boulevard, Timișoara, has a total area of 49,356 sqm, with cadastral number 448544 - according to County Council Decision 128 / 27.06.2019.

The site is not inside protected natural areas. The nearest natural areas are located approximately 8.5 km south of the site, being the following:

- ROSCI0109 Lunca Timișului;
- ROSPA0128 Lunca Timișului.

The orientation of the proposed land towards the cardinal points and towards the built points of interest is the following:

- To the north is House of Austria - a Hospital Clinic
- To the southwest, the proposed land borders the Orthopedic Clinic
- To the northwest, the proposed land is adjacent to the Central Building
- To the northeast there is another land belonging to SCJUT on which it is proposed to locate an Obstetrics-Gynecology Clinic of the hospital
- To the southeast, the proposed land is adjacent to residential buildings.



From the point of view of the spatial-volumetric configuration, the proposed building will have a height regime of Basement + Gf + 4F + 5Fr + Heliport and will be located adjacent to the House of Austria.

The urban indicators proposed for this project are the following:

- Land area 49,356 sqm
- New construction (proposed without redevelopment) 3,625 sqm
- Medical Gas Station (proposed) 57 sqm
- Total built area (existing + proposed) 19,368 sqm
- Total developed area (existing + proposed) 73,409 sqm
- Category of importance (cf. GD 766/1997) - A
- Importance class (cf. P100-1 / 2013) - I
- Degree of resistance at fire (cf. P118 / 1999) - I
- Fire risk (cf. P118 / 1999) - small
- Existing height regime – Basement+ Ground Floor+ 10 Floors
- Proposed height regime - Basement+ Ground Floor+ 5 Floors + Heliport
- Existing POT - Land Use Percentage - 32%
- Proposed POT - Land Use Percentage - 39%

##### Small demolition Works required

In order to carry out the construction, there is no need of complex demolition works that would require complicated interventions. Thus, it is estimated that it will be necessary to demolish and remove the existing concrete platform, remove the existing walkway and awning near the House of Austria. The new building will be adjacent to Austria House only at the ground floor.

## Description of the new construction

The new construction will consist of two buildings and a connecting walkway with the other clinics:

- A main body (body A) with a height regime of BF+GF+5F, square in shape and the side of approx. 51.5 m, which will benefit from a square-shaped inner courtyard and the side of approx. 11.0 m;
- A trapezoidal connecting body (body B), with a height regime of BF+GF+5F, which will connect with the Austria House, to which it will be attached at the basement and ground floor level. At floor levels, this connecting body will be retracted 6.0 m from Austria House;
- Gateway connecting with the existing buildings of SCJUT, the main building of the hospital, respectively the Orthopedic Clinic, on the 1st and 2nd floors of the new construction.

The buildings will be integrated within the existing facilities of SCJUT, ensuring the practical and safe operation of the hospital. These spaces include:

- UPU-SMURD (58 positions);
- A burn center (6 boxes for large burns, 6 reserves for intermediate and post-critical burns and 5 beds for microsurgery and reconstructive surgery);
- An ATI section (27 positions);
- Operation's Block (25 operating rooms);
- Related spaces (sterilization, pharmacy, administrative and logistical spaces, technical spaces, etc.);
- Heliport.

In addition to the main objective, which consists in building two buildings, the following secondary objectives are also provided:

- Connecting the new building with one of the existing buildings of the SCJUT - Austria House, in the area of direct contact between the two buildings, on the ground floor. This involves the partial redevelopment of the existing ground floor, in order to achieve a general-common UPU between the polytrauma ward and the rest of the hospital.
- Construction of an above-ground building, for technical functions: Medical Gas Station
- Construction of underground spaces, for technical functions: domestic water and fire basin and rainwater retention basin
- Connecting the new building with the rest of the existing spaces in other existing hospital buildings, through a walkway, which will also integrate the current connection between the Orthopedics and the secondary bar of the main hospital building (including Imaging, on the 1st floor and the operating room, on the first floor).
- Redevelopment of disused spaces by moving the above-mentioned functions to the new building. This objective will be detailed at a later stage in a separate project.
- Arrangement of an above-ground parking lot, with 50 places, for ambulances being proposed a dedicated chassis in which 5 dedicated vehicles can park. In addition, 9 temporary parking spaces are provided for the access of disabled patients.

The areas built on each level are shown in the table below.

Areas for each level of the main building

New Construction Level	Surface (sqm)
Basement - Sterilization, pharmacy, warehouses, workshops, waste, administrative offices	3.185
Basement- Underground basins	163
Ground floor - Medical gas station	57



Ground floor - UPU SMURD	3,625
Floor 1 – Great Burn Center (17 beds)	3,050
Floor 1 - Connecting gateway	205
Floor 2 - ATI (27 posts)	3,050
Floor 2 - Connecting gateway	160
Floor 3 – Operations’ Block (14 Operation Rooms)	3,050
Floor 4 – Operations’ Block (11 Operation Rooms)	3,015
Floor 5 - Indoor and outdoor technical stations	320
<b>Total</b>	<b>19 880</b>

The landscaping will also include the works necessary for the construction of the basement, secluded from the ground floor level.

The basement of the new building will be accessible through a service yard, located at approx. 4.00 m below the elevation of the natural land, respectively at approx. -5.20 m from the ground level (below 1.20 m from the general basement). Through an unloading ramp, access will be made to the medicine and medical consumables storage spaces for the Hospital Pharmacy, the Storage spaces and the Workshops.

Considering that following the geotechnical study it was observed that the groundwater is at about 3.7 m depth from the ground level, the final level of the excavation for the proposed building will be below groundwater level.

The medical gas station is provided as an above-ground construction, used to ensure the necessary medical fluids and for their distribution, being located in the outdoor parking area, in the northern part of the site, towards Liviu Reberanu Blvd.

It has an area of 57 square meters, being built on one level, on the ground floor. It will consist of the following interior spaces: oxygen station, nitrous oxide station, carbon dioxide station. The spaces will be accessible from the outside, through metal doors. Near this station is the platform for oxygen storage.

The heliport will be placed on a concrete structure located above the technical floor slab at a height of 3.40 m, with free space under it to prevent the formation of turbulence generated by the helicopter rotor and ensure the ground effect. The location and strength of the board will meet the requirements for a heliport platform for the EC-135 computing helicopter. The area of the contact and flight socket (TLOF) will have a circular shape with a diameter of 20 m, a slope of 1% and a load-bearing capacity of 3 tons.

In order for the designed heliport to be used at night and in adverse weather conditions, in VFR flight conditions, it shall be provided with the following light-marking devices:

- Heliport headlight;
- Light guidance system for alignment with the main flight path;
- Light guidance system for alignment with the secondary flight path;
- Contact and flight area light (TLOF);
- Helicopter approach trajectory indicator (HAPI);
- Wind direction indicator.

## **Access to site**

Access to the site is ensured through direct connections with several main arteries of the municipality:

- Liviu Rebreanu Blvd. in the north, connection on the east-west axis;
- Str. Arieș and Cluj Street in the north, connection with the central area on the north-south axis;
- Calea Martirilor 1989 in the west, connection with the southern area.

## **Existing utilities**

### **Water supply**

The water supply of the entire objective will be ensured from the public network through two connections.

- One for household consumption and fire reserve restoration; calculated to ensure the restoration of the fire water supply in maximum 24 hours and the necessary household consumption
- One for extinguishing fires with external hydrants; calculated to provide the flow rate of 25 l / s required to extinguish fires with external hydrants and the measured surface pressure of at least 0.70 [bar]
- The hot water will be heated and stored at a minimum temperature of 60 ° C, to avoid the development of microorganisms dangerous to humans (such as legionella). At the same time, in order to prevent the development of dangerous legionella-type microorganisms and because the route of the pipes to some fittings is very long, a hot water recirculation installation has been provided, which will be operated by a recirculation pump.
- The distribution of water to consumers will be done through vertical columns of water and through pipes positioned in the false ceiling. The water supply columns will be mounted in niches specially provided in the architectural project.
- Based on the calculations performed at the time of writing, this resulted in an average annual cold water consumption of approximately 12,581.55 m<sup>3</sup>/year, which corresponds to an average daily consumption of 34.47 m<sup>3</sup>.

### **Sewerage collection**

Within the objective, the following water categories will be collected in the external sewerage network:

- Domestic wastewater from the operation of all sanitary ware, including toilets
- Condensation water from the operation of fan coil units / indoor air conditioning units
- Accidental spilled water and water from the emptying of the installation elements from the technical spaces
- Rainwater falling on the terrace of the building
- Rainwater from roads, concrete platforms and pedestrian alleys
- Radioactive wastewater from imaging laboratories

The collection of the waters from the enclosure will be done in a separating system, providing in this sense separate networks of domestic sewerage, acid / radioactive wastewater sewerage and rainwater sewerage.

Wastewater from the studied objects will be discharged to the public sewerage network located in the immediate vicinity of the site.

In order to comply with the permissible limit values for charging pollutants of wastewater discharged into the public network in accordance with the provisions of NTPA-002, the following equipment will be provided:

- Hydrocarbon separator with coalescent filter and internal by-pass, in order to purify rainwater from car traffic / terrace heliport

- Sediment separator, in order to retain various residues such as gypsum
- Decontamination / neutralization basin consisting of two compartments calculated as follows:
  - Compartment 1 - water retention between 24 and 48 hours
  - Compartment 2 - water retention 48 hours
- Compact pre-treatment plant for disinfection of hospital wastewater
- Condensation water neutralizer for each boiler - it will be delivered with them

A retention basin with a useful volume of approximately 135 m<sup>3</sup> was provided for rainwater collection. The water thus stored will be evacuated with the help of a pumping system consisting of three identical submersible dry-mounted pumps (two active and one spare pumps), with a flow corresponding to the connection permit to AQUATIM TIMISOARA (local water operator). This pumping system will be provided in an adjacent technical room and will pump water to the external sewer. Rainwater from the light yards will be directed to the wastewater pumping units installed in the dedicated basement basements. They will then be forcibly evacuated to the retention basin. The automation of the emptying of the basin will be done by observing the conditions from the approval.

### **Fire extinguishing systems**

In accordance with the legal provisions, the objective will be equipped with the following fire extinguishing installations:

- Indoor hydrants
- Exterior hydrants
- Foam extinguishing systems (heliport platform)
- Automatic inert gas extinguishing system - NOVEC type (server room)
- Portable devices for first intervention

The ensemble will be served by its own household of indoor fire hydrants common to the drinking water household and respecting art. 13.23 from P118 - 2/2013 act. Ord 6026/2018, consisting of the following equipment:

- Water reserve for indoor hydrants, with a useful volume of 15.34 m<sup>3</sup>
- An electric pump set for indoor hydrant installations consisting of an active pump, a spare pump and a pilot pump having the following characteristics:
- 1 x QPA / PR = 4.26 [l / s] and H = 81 [mH<sub>2</sub>O], 1 x QP = 1 [l / s] and H = 85 [mH<sub>2</sub>O]
- Two hydrophore vessels calculated to maintain the pressure in the installations for 45 seconds, for the hydrant pumping group, time required for the commissioning of the electric generator
- A water control unit for the installation of indoor hydrants

In order to extinguish with foam any potential fire on the heliport, according to RACR-AD-PETH "Design and technical operation of heliports", edition 3/2014, a fire household was provided under its platform (respecting art. 13.23 of P118 - 2/2013 act Ord 6026/2018), consisting of the following equipment:

- Water reserve for foaming mixture, with a useful volume of 2.80 [m<sup>3</sup>]
- An electric pump set for foaming installations consisting of an active pump, a spare pump and a pilot pump having the following characteristics:
- 1 x QPA / PR = 4.20 [l / s] and H = 85 [mH<sub>2</sub>O], 1 x QP = 0.50 [l / s] and H = 90 [mH<sub>2</sub>O]
- A 200 l foam barrel - foam container - and an aeromechanical foam production equipment with a volume of 500 l - foam mixer

The starting of the fire pumps will be done automatically, according to art. 13.4 of P118 / 2 - 2013, by mounting manometers with electrical contact or pressure switches, there is also the possibility of local manual start from the pump station room. The pumps will be stopped only manually, from the pumping station room according to art. 13.5 of P118 / 2 - 2013.

The distribution panel related to the electric fire pumps will be supplied with electricity from the two sources, on two paths and columns located on separate routes and protected from fire danger, corresponding to Regulation I7 - 11.

In order to protect the server room, a Novec gas extinguishing system will be provided.

The system will consist of the following elements:

- Central control unit
- Smoke detectors
- Optical smoke detectors
- Button for manual switching off
- Extinguishing delay button
- Extinguishing trigger warning bell inside the enclosure to be protected
- Warning panel with built-in siren and optical flash for the exterior

The extinguishing system operates in manual operation mode (by pressing the extinguishing trigger button) and automatically (without requiring human intervention), when a fire start is detected, an extinguishing delay counter of 30 s is triggered. , after which, if a person did not intervene to delay (dedicated buttons), the extinguishing is automatically triggered.

After the extinguishing gas has been triggered, the flooded chamber is kept watertight for a minimum of 10 [min].

After extinguishing the fire, the extinguishing agent and the combustion products are extracted from the flooded area by putting into operation the mechanical ventilation related to the respective space, for 20-30 min after the extinction.

In addition to the facilities described above, the buildings are equipped with portable extinguishers for intervention.

Thus, according to Ord. 163/2007, the building is equipped with fire extinguishers, ensuring one fire extinguisher with P6 powders or its equivalent for each part of built area of maximum 150 sqm.

In accordance with art.7.210 and art.7.2.11 of I13 / 2015, the thermal power plant will be equipped with technical means of fire protection and will be equipped with fire extinguishing installations according to the regulations in force. In the boiler room of the thermal power plant, fire extinguishers with extinguishing performance 21A and 113B will be provided, located one for every 100 sqm of floor area.

In the rest of the technical rooms, 2 extinguishers with powder and CO2 of at least 6 kg or similar are provided.

Portable extinguishers must contain the extinguishing agent and the quantity corresponding to the hazard class, foreseeable in that space.

At the same time, according to Instructions 569/2008, one PSI picket will be provided for each 500 sqm of built area .

## **Power supply**

The normal supply of electricity to the building is done with an independent transformer station, installed in a specially arranged space. Also, two 1,600 kVA dry transformers were provided, which each supply a general electrical panel: one normal supply and one for safety/back-up

The safety power supply will be made with four generators (electric generator with diesel engines) of 650kVA each, with automatic start in less than 15 seconds and a range of 24 hours of operation.

The electric generators will be housed and mounted outside, and the diesel supply will be made from a tank.

The choice of materials for interior lighting will be made according to:

- Lighting level
- External influences and particular risks
- Fire behavior
- Low maintenance

For reasons of energy saving, LED sources will be provided to equip all lamps.

The lighting of the rooms will be done with ceiling or wall luminaires with LEDs, depending on the destination of the room. The choice of the type of lighting fixtures will be appropriate and the type of activities that take place in the respective room.

## **Thermal heating**

The supply of thermal energy for heating will be done with a normal source, from the local thermal energy supplier, by means of a heat exchanger with a capacity of 3900kW and a spare one, provided by 3 thermal boilers operating on gaseous fuel, mounted in dedicated thermal point, space that complies with the rules in force.

The thermal room will be located in the new building. To supply the three boilers in the new thermal chamber, a new natural gas installation has been designed.

The supply with thermal energy in the hot season, in order to reduce the temperature, will be done by means of chillers with 30% ethylene glycol solution.

The space will be heated with static heaters, radiators and ceiling units such as fan coils in a 4-pipe system, and the spaces will be cooled with the same type fan units mounted in the false ceiling. Local air conditioning systems will be installed in the IT rooms and technical spaces.

## **Ventilation and Air Conditioning installations**

The hospital will be provided with ventilation and air conditioning installations, both for compliance with the permissible air purity limits provided for hospital-specific room classes, according to NP015-1997, as well as for achieving comfort conditions for accommodating patients and carrying out hospital activities.

By composition, construction characteristics, quality of materials used, endowment with air treatment equipment and automation equipment, by the assigned functional performances, the air conditioning ventilation systems will correspond to the requirements of achieving in the served spaces the levels imposed for microclimate parameters and for lack of pathogens and / or other types of harmfulness, ensuring controlled air circulation between spaces, without adversely affecting the normal limits of air quality in the external environment and in the most economical operating / operating conditions.

Strictly hospital-specific rooms fall into 4 classes of rooms determined by the claims of asepsis that correspond to the nature of the activities for which they are intended: limit levels for the volumetric concentration of germs (N) are established for each class indicating the number of specific units of germs at unit of volume (germ / m<sup>3</sup>).

According to NP 015 - 1997, the rooms are divided into the following classes:

- Class I  $N \leq 10$  germ / m<sup>3</sup>
- Class II  $N \leq 200$  germ / m<sup>3</sup>
- Class III  $N \leq 500$  germ / m<sup>3</sup>
- Class IV  $N > 500$  germ / m<sup>3</sup>

Depending on the space served and the chosen destinations, the air treatment units will be dimensioned according to the parameters mentioned in NP 015 - 1997 and IS - 2010.

The conditions of air purity in the rooms of hospital units imply an adequate level of filtration, which determines the number of filtration stages, the functional performance of the filters and the location of each filtration stage within the facilities. 3 types of filters are used:

- Gross filters (pre-filters) filters class EU 3 and EU 4 (retention degree 80-95% according to ASHRAE gravimetric test); stage I is used for filtration;
- Fine filters class EU 7 and EU 8 filters (80-95% retention degree according to ASHRAE opacimetric test); stage II is used for filtration;
- Absolute filters EU class 10 EU 12 filters (retention degree 98-99.97% according to DOP test Mil. Std. 282); stage III is used for filtration.

### **Temporary Facilities Required During Construction Phase**

Construction activities will require temporary facilities to be erected and installed on the site. Installation of these temporary facilities will enable various site functions to be achieved, including storage of construction materials, office administration and amenities and provision of site security. Temporary facilities required during construction works might include items such as a batch plant, bulk materials laydown yard, vehicle wash bays, decontamination facilities for vehicles, fencing and security access control points, contamination control points, portable toilets, waste water utilities, bulk material stockpile areas, demountable offices and lighting.

## **4. ENVIRONMENTAL AND SOCIAL IMPACTS AND RISK ASSESSMENT OF SUB-PROJECT ACTIVITIES**

### **4.1 ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS**

This subproject will not finance any activity with significant or irreversible environmental impacts, and therefore has triggered OP 4.01 with classification as Environmental Category "B.", as well as OP 4.11, Physical Cultural Resources for chance findings. The ESMP includes requirements for contractors and for MoH which refer to specific measures necessary to be taken for complying with Romanian laws and procedures related to the physical cultural resources, and with the World Bank's requirements for managing impacts on cultural property.

If any cultural assets are found during construction (excavation) works ("chance finds"), the measures outlined in the Law 422/2001 will be undertaken, including the setting up of a protection zone in compliance with the Law 422/2001, reporting to the local offices of MoC, and obtaining a special permit for the execution of works in connection with the found cultural assets.

The major COVID-19 related environmental and social risks are related to: i) medical waste management and disposal ii) spread of the virus among construction and other on-site/healthcare workers; and iii) the spread of the virus in local communities.

#### 4.1.1 ENVIRONMENTAL IMPACTS AND RISKS

The analysis of environmental impacts involves that is expected to have a net positive environmental impact by increasing the response capacity to medical emergencies in western Romania.

The potential adverse environmental impacts of project implementation will be limited and temporary, and are mainly related to construction works which may include:

- increased pollution due to demolition and construction waste;
- increased noise and dust level during demolition works and construction activities
- generation of dust, noise, and vibration due to the movement of construction vehicles and machinery;
- associated risks due to improper disposal of construction waste, asbestos and asbestos-containing materials, or minor operational or accidental spills of fuel and lubricants from the construction machinery;
- increase in traffic during construction which may impact community;
- impact on workers and community health and safety during construction activities;
- improper reinstatement of construction sites upon completion of works;
- unsafe practices during operation of the building; and
- Inappropriate disposal of the demolition debris.

The risks listed above are anticipated in advance of project implementation and direct mitigation activities will be designed, implemented, monitored and evaluated during pre-construction, construction and operation in a way consistent with national legislation, WB OPs and international good practice.

Use of construction materials that are hazardous to human health (e.g., asbestos, asbestos contained materials) will not be permitted. Asbestos-contained materials waste will be collected, transported and finally disposed by applying special protective measures in accordance with the hazardous waste handling standards.

Table 3. Environmental risks

Impact	Possible environmental factors affected	Extent	Impact characteristics (Magnitude, Probability, Duration, Reversibility)	Measures
<b>Positive impacts</b>				
Reducing the risk of death by increasing the efficiency and response capacity to medical emergencies in western Romania	Population (health)	Regional (West Zone)	Medium magnitude Average probability Duration: long term Irreversible impact	Not necessary
Stimulating the workforce by creating new jobs for graduates of Romanian Medical Schools	Population (economy)	National	Small magnitude Average probability Duration: long term Irreversible impact	Not necessary
Valorization of the land inside SCJUT through an efficient and productive use	Soil, population (urbanism)	Local	Large magnitude High probability Duration: long term Irreversible impact	Not necessary

Impact	Possible environmental factors affected	Extent	Impact characteristics (Magnitude, Probability, Duration, Reversibility)	Measures
Improving the physico-chemical properties of discharged wastewater by implementing adequate wastewater collection and pre-treatment systems	Surface water	Local	Small magnitude High probability Duration: long term Irreversible impact	Not necessary
Qualitative improvement of the medical act by implementing appropriate measures in order to ensure the necessary utilities for the development of the medical act	Population (health)	Regional	Medium magnitude High probability Duration: long term Irreversible impact	Not necessary
<b>Negative impacts</b>				
Reduction of the efficiency of the wastewater treatment plant of the municipality of Timișoara as a result of the discharge of wastewater with chemical and biological load	Surface water	Local	Small magnitude Low probability Duration: short term Reversible impact	Local pre-treatment systems selected according to discharged pollutants with by-passes
Increase in the concentration of greenhouse gases in the site area as a result of CO <sub>2</sub> emissions from combustion and ventilation processes, as well as in case of accidental emissions of freons from cooling installations	Ambient air	Local	Small magnitude Average probability Duration: medium term Reversible impact	Periodic monitoring of emissions and periodic preventive maintenance
Decreased ambient air quality due to emissions from stationary, mobile and fugitive sources in the SCJUT area	Ambient air	Local	Small magnitude Average probability Duration: long term Reversible impact	Periodic monitoring of emissions, periodic preventive maintenance, management and surveillance of traffic inside SCJUT
Contamination of soil and water with water laden with radioactive particles due to improper management of waste and wastewater resulting in radiology and imaging departments	Soil, subsoil, groundwater, surface water	Local	Medium magnitude Low probability Duration: long term Reversible impact	Proper management of resulting waste, defective equipment and water resulting from cleaning activities.
Contamination of soil and aquifers with free level with chemical and biological substances in case of failures in the sewerage system or underground basins	Soil, subsoil, groundwater	Local	Medium magnitude Low probability Duration: long term Irreversible impact	Choice of double-walled underground basins, periodic inspection of the sewerage system to identify potential accidental leaks
Increasing the amount of waste generated, including medical waste	Soil, ambient air, natural resources, population (health)	Local	Large magnitude High probability Duration: long term Irreversible impact	Selective waste collection, concluding waste disposal contracts with authorized companies, keeping proper records of waste generated and conducting annual waste audits



Impact	Possible environmental factors affected	Extent	Impact characteristics (Magnitude, Probability, Duration, Reversibility)	Measures
Increasing the consumption of hazardous chemicals	Soil, ambient air, population (health)	Local	Small magnitude Average probability Duration: long term Reversible impact	Efficient management of hazardous chemicals

#### 4.1 SOCIAL IMPACTS AND RISKS

*Land acquisition – there is no need for any land acquisition.* The land plot for this subproject is publicly owned and not used for agricultural or businesses purposes, by formal or informal users.

The project is expected to mainly have a positive social impact at the level of the community by providing improved access to a burn center in their vicinity. In relation to the potential negative impacts and risks identified at this stage, these are related to:

- impact on workers and community health and safety during construction activities, including risk of the spread of the COVID-19 virus among on-site workers and local communities;
- possible injuries of the local population and workers;
- community dissatisfaction regarding the site noise and dust and the potential spread of the COVID-19 virus;
- problems with connections to the water supply network, and temporary negative impacts to the population in the vicinity;
- Increase discomfort of the neighbors due to noise and dust pollution;
- Potential interruptions in utilities for neighboring properties, at the time of connecting the new buildings to gas, water, sewerage, electricity; and
- Temporary increase of traffic congestion and road accident risks during transport of demolition waste and building materials.

#### 4.2 MAIN MITIGATION MEASURES

Overall, appropriate planning, monitoring, consultations with affected parties and a grievance procedure are expected to keep these impacts at a minimum low.

Mitigation measures for more specific environmental risks are detailed below:

##### A. WATER QUALITY PROTECTION

Construction stage / Sources of pollutants

The sources of pollutants that can negatively influence water quality are the following:

- Wastewater from washing the tires of vehicles leaving the site;
- Accidental spills from machinery and storage areas of hazardous chemicals and waste;
- Domestic wastewater resulting from hygienic-sanitary activities of employees;
- Emissions of sediment dust that can be entrained by rainwater in the public sewer system;

- Rainwater contaminated with hydrocarbons resulting from outdoor platforms, parking lots and roads associated with the site.

#### Treatment or pre - treatment plants and installations

The treatment or pre -treatment plants and installations that will be installed during the construction phase are the following:

- Installation of temporary pre - treatment equipment equipped with hydrofoils and hydrocarbon separators for tire washing activities and waterproof collection basins for hazardous chemicals and waste storage areas;
- Ensuring a sufficient number of ecological toilets for the employees of the executors.

#### Operating stage / Sources of pollutants

The sources of pollutants that can negatively influence water quality are the following:

- Wastewater from sanitary ware used by patients, which can be loaded with various substances from drugs or biological contaminants (viruses, bacteria);
- Wastewater from the operating room and other areas associated with medical acts (eg laboratories) that can be loaded with various biological and chemical contaminants;
- Radioactive wastewater from imaging laboratories;
- Condensation water from the operation of fan coil units and indoor air conditioning units;
- Hydrocarbon-contaminated stormwater resulting from outdoor platforms, parking lots, motorways and heliports;
- Conventionally clean rainwater collected from the terrace of the building (except for water from the heliport);
- Accidental water and water from the emptying of installation elements in technical spaces.

#### Water pre-treatment and treatment plant

In order to comply with the permissible limit values for loading with pollutants of wastewater discharged into the public network in strict accordance with the provisions of NTPA-002, the following equipment will be provided :

- Hydrocarbon separator with coalescent filter and internal by-pass, in order to purify rainwater from car traffic / terrace heliport
- Sediment separator, in order to retain various residues such as gypsum
- Condensation water neutralization device for each boiler - it will be delivered with them
- Decontamination / neutralization basin consisting of two compartments calculated as follows:
  - Compartment 1 - water retention between 24 and 48 hours
  - Compartment 2 - water retention 48 hours
- Compact , modular pre-treatment plant for disinfection of hospital wastewater, located in the basement of the building , in a specially designed room . The room will be equipped with a system for disinfecting air enclosure signed with lamps UV installation for exhaust of air polluted by its NCAP and purifying the air by removal of odors .

The scheme of the pre-treatment chosen single track important health t n an especially retaining material in suspension (MTS) and disinfection of the water used by using Ozone , in the limits imposed by the regulations in force .

The solution of pre-treatment adopted is based on the technology of disinfection of wastewater with ozone.

## B. AIR PROTECTION

### Construction stage /Sources of pollutants

The sources of pollutants that may adversely affect air quality are the following:

- Landscaping works and foundations of technical annexes: excavation and filling works for punctual leveling activities of the land, which can generate high concentrations of suspended dust;
- Occasional construction and finishing works: cutting, turning, welding, painting, sanding that can generate high concentrations of dust in the atmosphere from the handling of construction materials and finishes, volatile organic compounds (VOCs) from thinners and paints;
- Activities ancillary to the works: storage of waste, construction materials, fuels and other chemicals used during the works that may generate fugitive VOC emissions and an annoying odor;
- Mobile sources due to vehicular traffic on / off site that may generate emissions of dust, CO, CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>.

### Installations for containment and dispersion of pollutants

Organizational measures will be taken to limit on-site traffic, use only CE-marked equipment with high energy efficiency and cover all vehicles carrying materials or waste that can be entrained.

### Operating stage / Sources of pollutants

The sources of pollutants that may adversely affect air quality are the following:

- Three steel boilers with pressurized hearth for the preparation of the thermal agent with a capacity of 3 x 1.3 MW.
- Exhaust chimneys associated with air treatment plants with variable flow rates depending on the size and required quality of the indoor air in the sections served.
- Emissions from mobile sources as a result of personnel vehicles, patients, belongings or ambulances;
- Fugitive emissions from the temporary waste storage area consisting of packaging waste, small particles and organic compounds as a result of the fermentation of household waste;
- Refrigerant emissions from local air conditioning systems in technical spaces. It should be noted that emissions can only occur in the event of potential leaks due to improper installation or maintenance during the execution or operation phase.

### Installations for containment and dispersion of pollutants

Installations to retain and the dispersion of pollutants and measures they proposed to limit and emission control are the following :

- Selection of efficient combustion boilers that do not exceed the emission limits established by Law no. 188/2018, Annex no. 2, Part 1, Table 1;
- Exhaust chimneys for the three boilers for the preparation of the thermal agent with adequate height to ensure an efficient dispersion of the resulting flue gases;
- Registration of the two average combustion installations according to the requirements of Law no. 188/2018 regarding the limitation of air emissions of certain pollutants from medium combustion plants, Art. 5, para. (1);
- Periodic monitoring of emissions and keeping records required by Law no. 188/2018 regarding the limitation of air emissions of certain pollutants from medium combustion plants, Art. 11;
- Disposal of waste with an appropriate frequency depending on weather conditions to avoid temporary long-term storage;
- Proper management and control of traffic inside the SCJUT to avoid the formation of traffic jams and to streamline traffic effectively;
- Keeping a record of all refrigeration equipment containing the type and quantity of refrigerant contained, the global warming potential (GWP) in tonnes of CO<sub>2</sub> equivalent and the maintenance frequency according to Regulation no. 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) no. 842/2006;

- When choosing the air conditioning system, select equipment that contains refrigerants without ozone depletion potential (ODP) and with global warming potential (GWP) as low as possible such as: R32 (1 kg R32 = 675 kg CO<sub>2</sub>) , R407c (1 kg R407c = 1,774 kg CO<sub>2</sub>), R410a (1 kg R410a = 2,088 kg CO<sub>2</sub>).

## **C. PROTECTION AGAINST NOISE AND VIBRATION**

Execution period / Sources of noise and vibration

The sources of noise and vibration during the execution period are the following:

- Heavy machinery and equipment used for field work and transport, as well as for lifting loads;
- The activity of the workers and the communication between the employees of the executor;
- Materials loading and unloading activities;
- Vehicle and forklift traffic.

Arrangements and equipment for protection against noise and vibration

The arrangements and equipment for protection against noise and vibration are as follows:

- Placement of sound-absorbing panels at the construction site boundary;
- Use of equipment with CE marking and low noise level;
- Avoiding activities that generate loud noise during quiet hours;
- Carrying out an execution plan and periodically verifying the activities carried out, including a noise management plan.

Operating period / Sources of noise and vibration

The site does not present a significant noise source and vibration during operation, with the exception of the exterior of the equipment installed in buildings covered by the present draft facilities such as heating / cooling , air treatment plants and inside SCJUT traffic .

The most important sources of noise and vibration will occur during the execution phase as described.

Arrangements and equipment for protection against noise and vibration

Only CE marked equipment will be selected and efficient traffic management on the SCJUT site will be ensured.

## **D. RADIATION PROTECTION**

Radiation sources

The equipment with ionizing radiation emissions will be used only during the operation period, in the radiology and imaging department . Conventional radiological examinations (X -rays ) and computed tomography (CT) scans will be performed using X-rays.

No work is required in the execution phase that requires the use of ionizing radiation sources.

Arrangements and equipment for radiation protection

Arrangements and equipment for protection against ionizing radiation will be identified following the selection of equipment to be used and following an authorized study.

## **E. SOIL AND SUBSOIL PROTECTION**

Execution stage / Sources of pollutants

Potential sources of pollutants that may affect the quality of soil, subsoil or groundwater are the following:

- Construction works and land preparation: cleaning the existing concrete layer (removing vegetation, repairing cracks, waterproofing joints, etc.);
- On-site operation of the equipment: possible fuel and oil leaks due to malfunction of the equipment, fuel supply or maintenance and repair work;
- The activity of employees who can throw waste that will be carried by the wind;
- Combustion engines of machines and equipment that emit flue gases that can be entrained by precipitation directly into the soil and the geological environment.

Works and equipment for soil and subsoil protection

The works and equipment for the protection of the soil and subsoil provided for the execution stage are the following:

- Proper arrangement of storage spaces for fuels, construction materials and waste, welding areas, painting and spaces for maintenance and repair of equipment;
- Purchase of holding tanks for chemical and hazardous liquid waste storage areas so as to ensure double protection of the soil and the geological environment in case of accidental spills;
- Drawing up an instruction on how to intervene in case of an accidental spill and the appropriate training of employees.

Operating stage / Sources of pollutants

Potential sources of pollutants that may affect the quality of soil, subsoil or groundwater are the following:

- Fuel leaks from reservoirs related to backup electric generators;
- Wastewater transport pipelines with damaged seals or damage caused by external factors;
- Accidental spills from wastewater retention basins or accidental spills from modular wastewater treatment plants;
- Discharges of liquid waste containing hazardous substances from temporary storage areas located in the basement of the building;
- Leakage of hazardous substances from underground workshops (sanitary, biomedical, electronic, painting, carpentry and mechanical installations).

Works and equipment for soil and subsoil protection

All surfaces on which hazardous chemicals and mixtures will be stored shall be concreted and provided with appropriate and compatible retention tanks for the substance to be retained.

The wastewater pipes are made of corrosion-resistant material both to chemical conditions and site-specific soil and will be installed to a depth sufficient not to be influenced by external factors such as natural or human auto traffic .

All storage areas of the waste will be waterproofed with resin epoxy and will be provided with sewage collection and proper sewage where appropriate, to ensure taking water from washing surfaces or containers collection of waste (especially for the household waste).

## **F.WORKS, ENDOWMENTS AND MEASURES FOR THE PROTECTION OF BIODIVERSITY**

Based on the very low anticipated impact, no special works, facilities or measures other than those included in the other chapters are considered necessary for the protection of biodiversity and natural heritage .

However, a new green area in the west side of Austria House will be build to compensate the 46 trees to be grubbed:

- Leveling the land at the end of the works;
- Arranging pedestrian paths and providing lighting in the area;
- Laying a layer of vegetal soil at least 20 cm thick;
- Given the limited space inside SCJUT, it is recommended to plant a number of 46 trees in the northern part of the House of Austria and in the eastern part of the Regional Transfusion Center; considering the short distance to the park of the Dan Păltinișanu stadium, no significant impact is estimated on the air quality or on the green spaces in the municipality of Timișoara;
- Sowing the land with plant and grass species;
- Installation of street furniture (eg rest benches, waste bins) in an appropriate number.

The landscape plan and the execution details will be made in the technical project phase.

## G. PREVENTION AND MANAGING OF WASTE

List of waste and quantities generated in the execution phase

Code	Name	Estimated quantity [ t ]
<b>17 01 concrete, bricks, tiles and ceramic materials</b>		
17 01 01	Concrete	1700
17 01 02	bricks	1
17 01 03	Tiles and ceramic products	1
17 01 06 *	Mixtures of concrete, bricks, tiles or ceramic materials containing dangerous substances or separate fractions thereof	0.1
17 01 07	Mixtures of concrete, bricks, tiles and ceramic products, other than those mentioned in 17 01 06	1
<b>17 02 wood, glass and plastics</b>		
17 02 01	Wood	0.5
17 02 02	Glass	0.1
17 02 03	Plastic materials	1
17 02 04 *	Glass, plastics and wood containing or contaminated with dangerous substances	0.1
<b>17 03 bituminous mixtures, coal tar and tarred products</b>		
17 03 02	Asphalts, other than those specified in 17 03 01	0.1
17 03 03 *	Coal tar and tarred products	0
<b>17 04 metals (including their alloys)</b>		
17 04 01	Copper, bronze, brass	0.01
17 04 05	Iron and steel	5
17 04 07	Metal mixtures	1
17 04 09 *	The metal waste contaminated with hazardous substances	2
17 04 11	Cables, other than those specified in 17 04 10	1
<b>17.05 soil (including excavated soil, gravel and dredging spoil )</b>		
17 05 04	Earth and stones, other than those mentioned in 17 05 03	16800
17 05 08	Ballast waste other than those mentioned in 17 05 07	1
<b>17 08 gypsum-based construction materials</b>		
17 08 02	construction gypsum, other than those specified in the 17.08.01	0.1
<b>17.09 other waste from construction and demolition</b>		
17 09 04	D e waste from construction mixed and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	20
<b>15 01 packaging (including waste is separately collected municipal packaging)</b>		
15 01 01	Paper packaging and paperboard	1
15 01 02	Plastics packaging	2
15 01 11 *	Metal packaging porous matrix containing a hazardous material (eg. Asbestos), including empty storage pressure	0.1
<b>15 02 absorbents, filter materials, polishing materials and protective equipment</b>		
15 02 02 *	Absorbents, filter materials (including oil filters without further specification), polishing materials, protective clothing contaminated with dangerous substances	0.1
15 02 03	Absorbent filter materials, wiping and protective clothing other than those mentioned in 15 02 02	0.2
<b>20 01 fractions collected separately (except 15 01)</b>		
20 01 01	Paper and paperboard	0.1
20 01 21 *	Fluorescent tubes and other waste containing mercury	0.01
20 01 34	Batteries, other than those specified in 20 01 33	0.01
<b>20 03 other municipal waste</b>		
20 03 01	Municipal waste mixed	1

## List of wastes in the Operation phase

The types of the waste which are expected to be generated during operation are included in the table below. The quantities that will be generated are not yet known and it will be included in the Hospital's Waste Management Plan .

Code	Name
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 11 *	Metal packaging containing a porous mold made of hazardous materials (eg asbestos), including empty containers for storage under pressure
15 02 02 *	Absorbents, filter materials (including oil filters without further specification), polishing materials, protective clothing contaminated with dangerous substances
15 02 03	Absorbents, filter materials, polishes and protective clothing, other than those specified in 15 02 02
18 01 01	Sharp objects
18 01 02	Human fragments and organs, including blood vessels and preserved blood (except 18 01 03 *)
18 01 03 *	The Waste whose collection and disposal is subject to special measures to prevent infections
18 01 04	The Waste whose collection and disposal is not subject to special measures on prevention of infection (eg clothing, plaster casts, linen, clothing available, diapers)
18 01 06 *	Chemicals consisting of or containing dangerous substances
18 01 07	Chemicals, other than those specified in 18 01 06
18 01 08 *	Cytotoxic and cytostatic drugs
18 01 09	Medicines other than those mentioned in 18 01 08
20 01 01	Paper and cardboard
20 01 21 *	Fluorescent tubes and the other of waste containing mercury
20 01 34	Batteries and accumulators, other than those specified in 20 01 33
20 03 01	Municipal mixed waste

## H. SOLID WASTE MANAGEMENT PLAN

### Collecting waste

The waste resulting from medical activities are represented by all the waste, hazardous or non-hazardous, occurring in hospitals. The non-hazardous waste is waste similar to household waste.

The hazardous waste are as follows:

- Infectious waste
- Pathological waste (considered infectious)
- Stinging / cutting waste (infectious if in contact with biological fluids or hazardous substances)
- Chemical and pharmaceutical waste
- Radioactive waste

The Hospital has contracts for collection and safe disposal of waste with the following companies :

RETIM Ecological Service – municipal waste

Romecol – radiological films and contracts solutions

Steycycle – medical waste, including infectious waste and stinging / cutting objects

The PMU will screen medical waste management and disposal practices to determine if they are in keeping with the World Bank Group's EHS Guidelines and current WHO Guidelines for COVID-19. It will include:

- a. Identification of current methods of medical waste management and disposal at this facility;
- b. Identification of any on-site facilities for disposal of medical waste including incinerators, pits for burning medical waste, pits for burial of medical waste, etc.;
- c. Identification of any off-site disposal of medical waste, including how material is gathered and stored, routes taken to the disposal facility, and disposal procedures;
- d. Review of protocols (including transportation of medical wastes) and capacity for dealing with medical waste (including at the level of waste management facilities) specifically related to infectious diseases like COVID-19;
- e. Review of training procedures for healthcare workers and other relevant employees for medical waste management and disposal;
- f. Preparation of an ICWMP if needed, based on the findings of previous mentioned actions

Code according to Government Decision no. 856/2002	Categories of waste resulting from medical activities	Description of the collection method
18 01 01 sharp objects (except 18 01 03 *)	The waste-cutting stinging: pins, wire, catheter, syringe needle cannula, scalpel blades, pipette, or other glass laboratory glassware broken or not, etc. disposable, unused or expiry date beyond it that has not been in contact with potentially infectious material In case of waste above came into contact with potentially infectious material, including vessels contained vaccines are considered waste infectious and are included in 18 01 03 *. Where sharps have been in contact with substances / materials are considered hazardous waste and are included in 18 01 06 *.	It is collected in boxes with rigid walls with lids.
18 01 02 human fragments and organs, including blood and blood vessels (except 18 01 03 *)	The waste pathological organ consisting of fragments of the and of human organs, body parts, bodily fluids, biopsy material blocks resulting from surgery operators and Obstetrics (foetus, placentas, etc.), lab anatomical autopsy results , blood and blood vessels, etc. All this of wastes are considered infectious and are included in 18 01 03 *.	It is collected in bins, lid cartons or bags provided with yellow them in plastic bags rigid cap provided with yellow, as appropriate.
18 01 03 * The Waste whose collection and disposal is subject to special measures to prevent infections	The waste infectious, respectively waste containing or in contact with blood or other biological fluids, such as viruses, bacteria, parasites, and / or toxins of microorganisms, the infusion tubing, containers which contain blood or other biological fluids, fields operators, gloves and probes and other materials for single use, compresses, dressings and other contaminated materials, dialysis membranes, plastic bags for collecting urine, lab materials used, diapers emanating in patients hospitalized in infectious disease-specific health facilities or in infectious disease departments of healthcare facilities.	It is collected in bins, lid cartons or bags provided with yellow them in plastic bags rigid cap provided with yellow, if appropriate in the outer wall rigid with the cover.
18 01 04 of wastes whose collection and disposal is not subject to special requirements in order to prevent infection	Non-contaminated clothing, plaster casts, linen uncontaminated by waste results after treatment / thermal decontamination of the waste infectious containers which contain, other than cytotoxic and chemotherapy, etc.	It is collected in black or transparent bags.



Code according to Government Decision no. 856/2002	Categories of waste resulting from medical activities	Description of the collection method
18 01 06 * chemicals consisting of or containing dangerous substances	Acids, bases, halogenated solvents, other solvents, organic and inorganic chemicals , including residual products generated during laboratory diagnosis, fixing or developing solutions, concentrated products used in disinfection and cleaning services, formaldehyde solutions, etc. .	Collect in special containers with appropriate hazard marking ( "Flammable", "Corrosive", "Toxic" etc.) be treated according to the law on the hazardous waste.
18 01 07 chemicals other than those mentioned in 18 01 06 *	Organic chemicals inorganic or hazardous (which does not require specific labelling), disinfectants (weakly concentrated sodium hypochlorite, cleaning products, etc.), antiseptic solutions, the waste from diagnostic devices with low concentration of hazardous chemical substances, etc. , not falling within 18 01 06 *	Collect separately in the original packaging. In the case of waste from diagnostic devices, which contain dangerous chemicals in negligible concentrations, specific instructions are followed equipment. Those of waste is recovered or disposed of as non-hazardous waste
18 01 08 * cytotoxic and cytostatic drugs	N / A	The waste resulting from the administration of cytotoxic treatments and cytostatic represented by the bodies or needle syringe used with bottles, and perfusion systems, soft materials contaminated personal protective equipment, etc. must be collected separately, packed in secure disposable containers with lids, which must be disposed of separately. The containers to be labelled with the same and the specific information above, other types of waste. This type of I is only removed by incineration, under Law No 278/2013, as amended and supplemented.
18 01 09 medicinal products, other than those specified in	N / A	

The collection and separation of waste by categories at the place of production are the first stages of collection and are very important, they require the use of 2-color packaging:

- yellow - for hazardous waste (infectious, cutting, stinging, chemical and pharmaceutical; they are disposable and are disposed of with their contents).
- black - for non-hazardous waste.

Collecting waste of sections, compartments and laboratories is carried out as follows:

- Infectious non-stinging waste is collected in cardboard boxes with yellow polyethylene bags. The boxes are checked to be strong, continuous and watertight and impermeable to prevent liquid leakage, to be yellow and printed with the "biohazard" icon;
- Infectious waste that is cutter-prickly is collected in plastic containers with special caps with permanent closure, holes for detaching the syringe needles and scalpel blades and transport handles. Containers must be yellow, resistant to mechanical action and printed with the 'biohazard' icon;
- The anatomical parts that are intended for incineration are collected in rigid cardboard boxes provided with a high-density polyethylene bag. The boxes are checked for leaks and printed with the "biohazard" icon;
- Chemical and pharmaceutical waste is collected in special containers which are selected according to the physico-chemical properties of the waste to be deposited. The containers are subsequently labelled according to the characteristics of the waste;
- Non-hazardous waste (eg household, paper and cardboard, plastic, etc.) is collected in black or colourless bags;

All bags, regardless of the type of content must be labelled with information on the department, department or laboratory that produced them, start date using and filling, the name of the person who performed the carriage to the point of temporary storage i maximum filling capacity.

Preliminary sorting of the waste must be made in sections, compartments and laboratories where they are generated. It is mandatory to analyse the activities of each department responsible for the environment together with a representative of the department (ie Head of department, doctor, nurse / A) and identifying Waste results, at least the following categories:

- Cutting-stinging infectious waste;
- Infectious waste that is not sharp;
- Anatomical parts for incineration;
- Hazardous chemical and pharmaceutical waste;
- Non-hazardous chemical and pharmaceutical waste;
- Household waste;
- Paper and cardboard;
- Plastic;
- Glass.

In the evaluation of waste generated will take into account the possible reduction in the amount of the waste contaminated, so as to increase the collection rate of the recyclable waste (eg, a more accurate separation of the waste from packaging). Such an approach reduces negative environmental impacts and reduce disposal costs of waste. Therefore, it is recommended that after installing medical equipment and establish quality requirements for the provision of medical care based on the future flow in each division, department or laboratory to be established collection points for waste which:

- Adapted in size to the waste stream generated;
- Equipped with appropriate containers and sized for each type of waste mentioned above;
- Easily accessible and located in a safe place for waste management staff;
- Properly labeled, visible and easily recognizable by installing signage and expressive labels, as well as by marking the location on the floor with paint or colored tape.

Evacuation of waste from stations, compartments and laboratories must be performed with a frequency of at least 3 times a day for wards with patients and at least one time of day in office. The frequency will be adjusted depending on the necessity and will identify and document sections, compartments and laboratories that are exceptions to the rule (eg, operating rooms, or areas where the discharge of waste is carried out on demand, higher frequency or lower frequency).

Management of substances and dangerous prepared products

Hazardous substances and prepared products used and / or produced

The substances and dangerous chemical products used by SCJUT are the following:

- Solutions for developing radiology films;
- Film fixing solutions,
- Floor disinfection solutions,
- Laboratory reagents;
- Gasoline,
- Diesel, approx.

Substances management module and dangerous preparations

The management of dangerous chemical substances and preparations will be carried out as follows:

- Packaging: the substances used and the laboratory reagents will be purchased and stored in airtight 5 l plastic containers. The diesel necessary for the operation of the generator set will be purchased from authorized distribution stations and will be stored in a tank with a volume of approximately 10 m<sup>3</sup>;
- Transport: the transport of substances will be carried out with means of transport approved by Romanian Civil Traffic Authority - RAR, in compliance with the provisions of Law no. 122/2002 and GD no. 1326/2009 on the transport of dangerous goods in Romania;
- Storage: hazardous chemicals will be stored in a special space in the basement, as well as in smaller spaces in the sections where they are to be used, on waterproofed surfaces;
- Use / marketing: chemicals will be used in the medical activity depending on their specific purpose (eg disinfectants, cleaning agents, etc.).

These risks are anticipated in advance of project implementation and addressed by local regulations and direct mitigation activities in the design, planning and construction supervision process as well as during the operation of the facilities.

The risks listed above are anticipated in advance of project implementation and direct mitigation activities will be designed, implemented, monitored and evaluated during pre-construction, construction and operation in a way consistent with national legislation, WB OPs and international good practice.

Use of construction materials that are hazardous to human health (e.g., asbestos, asbestos contained materials) will not be permitted. Asbestos-contained materials waste will be collected, transported and finally disposed by applying special protective measures in accordance with the hazardous waste handling standards.

## **I. OCCUPATIONAL HEALTH & SAFETY**

Occupational health and safety hazards may occur during construction, maintenance, and operation of new facilities and equipment, and must be carefully managed.

The Contractor will develop a Method Statement before starting construction works on site, and this document will be approved by the Employer.

Many workers will be exposed to occupational health and safety hazards, primarily including, but not limited to:

- Lack of awareness on occupational health and safety requirements such as the use of personal protective equipment (PPE) and safe workplace practices;
- Electrical works;
- Exposure to chemicals (as paints, solvents, lubricants, and fuels);
- Traffic accidents;
- Excavations hazards;
- Lifting of heavy structures;
- Exposure to construction airborne agents (dust, silica and asbestos);
- Welding hazards (fumes, burns and radiation).

In particular, prevention and control measures must ensure that only trained and certified workers access the facilities or any area that could present occupational health and safety hazards, with the necessary safety devices and respect for minimum setback distances.

- Considering the current situation with COVID-19 in the country, in addition to the measures for safety and protection at work, the OH&S plan also should include measures for prevention of COVID -19. Detailed description of the measures and recommendations from the World Bank/WHO and Romania's health authorities are presented in Error! Reference source not found.5 The COVID-19 prevention measures contains recommendations from the World Bank / WHO, as well as recommendations from the Romania Health authorities in the form of a Guide that the Contractor of the construction works needs to implement. The Contractor is required to follow/update and implement the measures that are currently in force and adopted by the Government as binding at national level. Official site for information related to COVID 19 on national level is [Government of Romania's official COVID-19 page: https://stirioficiala.ro/informatii](https://stirioficiala.ro/informatii)

**Protecting healthcare workers and infection control.** The PMU will conduct a review of protocol's for protecting healthcare workers and patients from infections based on current WHO Guidelines for COVID-19 and the Infection and Prevention Protocol contained in Annex 5. The review will include:

- 1) Determination if training given to healthcare workers and other employees is adequate;
- 2) Determination if healthcare staff are trained on how to deal with the remains of those who might die from COVID-19, including those conducting autopsies;
- 3) Determination if adequate stores of PPE are available on-site; and
- 4) Identification of supply lines for required PPE.

The legislation in the environmental field must be observed both in the construction and in operational phase. Because of their special impact during the operational phase, the radiation protection issues are treated separately.

## 5. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN & MONITORING PLAN

### 5.1 Site Specific Environmental Screening and Review

As part of the site specific ESMP, all project-supported activities for construction of the Timisoara UPU will be subjected to a site-specific environmental and social screening and review process, according to the requirements of the Environmental Protection Law, World Bank Group EHS Guidelines and WHO COVID-19 Guidelines, See Annexes 4 and 5 for detail.

In accordance with the national legislation, the local environmental authorities have the obligation to submit an Environmental Approval for the anticipated civil works. This process is based on the mitigation of site-specific environmental impacts and uses a standardized appraisal format that includes, but is not limited to the reviewing of:

- a) current environmental problems on respective site (soil erosion, water supply contamination, etc.);
- b) potential environmental impacts, if any, due to the project (disposal of waste from demolition and construction, waste handling and disposal, construction noise and dust etc.);
- c) any cultural assets that might be found in the place of construction, and
- d) potential pedestrian and vehicle traffic disruption and associated public safety risks.

## 5.2 Monitoring, Supervision and Reporting

Based on the actions that are presented under the E&S management and monitoring plans, the safeguard specialists will keep track of direct and indirect activities that have an impact on the identified social risks related to the demolition, construction and operational phases of the investment.

The ESMP implementation will be supervised by social safeguard specialist and PIU's staff periodically (as per monitoring schedule), as well as by the WB (during its supervision missions) and by the local environmental guard inspectors. Furthermore, the social and environmental safeguard specialists will present semiannually short information about the ESMP implementation as part of the Progress Reports to be presented to the WB by the client.

The environmental and social issues including mitigation measures will be supervised periodically by the MoH-PMU and the hospital's technical staff assigned for carry out such activities in relation with the construction works.

There are environmental regulations in force in Romania, which make control and supervision of construction works mandatory. Contracts and bill of quantities will include clauses for appropriate disposal of construction debris, including hazardous materials that may be encountered. Existing regulations require, and procurement documents will specify, that no environmentally unacceptable materials can be used. The environmental management guidelines included in Attachment 2 should be provided to contractors engaged in civil works under the project, and should be made an integral part of the civil works contracts.

**Integration of the ESMP into project documents.** The ESMP provisions will form part of the design documents for the sub-project in Timisoara and will be included in construction contracts for proposed activities, both into specifications and bills of quantities. Furthermore, the Contractors will be required to include the associated to ESMP mitigation and monitoring costs in their financial bids and required to comply with the ESMP provisions while implementing the sub-project activities.

During the site preparation for construction activities and the construction period, the Contractor will submit monthly reports to the MoH with information on temporary traffic regulation, water or energy regime, start date of construction works and expected duration, weekly program of working hours, opening jobs for construction, etc., when relevant to the community, will be revealed well in advance on the MoH website and at local level.

Also, the Ministry of Health, through its environmental specialist, will monitor the situation of compliance with the PMSM during the execution of the works, as well as the necessary measures to be taken in the event of unforeseen circumstances.

## 6. ENVIRONMENTAL GUIDELINES

### 6.1 Introduction

The Environmental Guidelines section details the specifics to be addressed during construction and rehabilitation of hospital buildings, and will be incorporated into the Planning Standards and Manual for Design.

The guidelines cover the handling of construction debris generated, selection of construction materials and construction methods with limited impact on the environment and energy saving methods.

### 6.2 The Site

The site specific screening and review should carefully consider the following issues:

- Dust and noise due to the demolition and construction;
- Dumping of construction wastes accidental spillage of machine oil, lubricants etc.;
- Inadequate handling of hazardous materials such as asbestos and paint from transportation and handling of construction works will be minimized by water and other means such as enclosure of construction sites.
- To reduce noise, construction will be restricted during certain hours.
- All debris, construction and wood waste will be stored within the work site.
- Wood waste will be stored separately and arranged to be recycled instead of disposing it.
- Open burning and illegal dumping will not be permitted.
- Proper sites for earth/clay and sand disposal will be determined and prior approval from relevant authority for disposal will be obtained.
- Stock piling of construction debris on site will be avoided and waste will be disposed of on a regular basis at the authorized government dumping ground. Debris chutes will be provided to transfer debris from higher floors to the ground.

### 6.3 Energy Efficiency, Insulation and Ventilation

Insulation should be tailored to the seasonal impacts of climate, internal thermal load, and characteristics of exposure. Vapor barriers should prevent moisture intrusion in the roof insulation and outer wall cavities and using damp course.

Window location should be determined on view, ventilation, light, thermal gain, privacy control and interior space functions.

High-efficiency systems for heating domestic water (including solar systems) and for interior space heating should be selected with maintenance and long term running costs in mind.

Plumbing should be coordinated to minimize plumbing and also water service to toilets and utility rooms. Water-saving faucets, ring mains and other devices also require consideration. Construction materials will conform to national regulations and internationally accepted standards of safety and environmental impacts.

### 6.4 Electrical Systems

Incoming cables should be located underground. Main entrance feed and panel located away from places of work and waiting is prudent in avoidance of electromagnetic fields. Ground faulty wiring near any plumbing fixture is a precaution. Selecting the most energy efficient light fixtures, lamps, appliances and equipment will reduce energy demand but can introduce undesirable electromagnetic fields. Be aware that close proximity to table, floor and desk halogen, fluorescent and other high-efficiency fixtures and lamps can cause an exposure to harmful electromagnetic fields.

### 6.5 Selection of Construction Materials and Construction Methods

Environmentally sound goods and services should be selected. Priority should be given to products meeting standards for recognized international or national symbols. Traditionally well-trying materials and methods should be chosen before new and unknown techniques. Construction sites should be fenced off in order to prevent entry of public, and general safety measures would be imposed. Temporary inconveniences due to construction works should be minimized through planning and coordination with contractors, neighbors and authorities. In densely populated areas, noisy or vibration generating activities should be strictly confined to the daytime.

### 6.6 Handling of Waste

The handling of construction debris will be according to local and national regulations, and as specified in the ESMP, and described above under site considerations. These regulations are developed and enforceable in Romania. Monitoring will be the responsibility of site supervisors working for the MoH. For asbestos and asbestos-containing materials please see Annex 7. In all the specific cases for which contractors should demolish or remove asbestos-containing materials, these categories of works should be done only with qualified personnel and fully in line with the specific legislation related to this specific field.

## 6.7 Occupational Health and Safety At Work

The contractor has the obligation to ensure all necessary personal protective equipment (PPE) and materials, and the workers have the obligation to use all such protective equipment - helmets, gloves, goggles where appropriate and work uniforms. All these minimum protection rules, doubled by avoiding over-exhaustion of workers, prevent ergonomic injuries and other work-related accidents resulting from repetitive, excessive and manual handling of building materials.

Recommendations for their prevention and control include knowledge of the most common causes of wounds in construction and decommissioning by:

- Training of workers in the lifting and handling of materials, techniques in construction and decommissioning projects, including placement of weight limits over which mechanical assistance is required.
- Workplace site planning to minimize the need for manual heavy load transfer.
- Selecting tools and designing workstations that reduce the need for strength.
- Implement administrative controls in work processes, such as job rotation and rest breaks.

## 6.8 Contractor H&SP and ERP

Contractor will be required to produce a Health and Safety Plan (H&SP) and an Emergency Response Plan (ERP) to protect his employees during the works he shall undertake. The Contractor's ESMP (C-ESMP) shall be considered when preparing contractor's H&SP and ERP. Environmental controls and exposure levels associated with worker protection shall be included in the C-ESMP. Work practices required by the ESMP are not intended to compromise health and safety in any way. Each H&SP and ERP will be approved by the Supervising Engineer prior to the contractor commencing works to ensure adequate health and safety controls and procedures have been developed, that are appropriate to the works to be undertaken.

## 6.9 Guidelines to minimize the risk of COVID19 transmission during civil works.

Considering the current situation with COVID-19 in the country, in addition to the measures for safety and protection at work, the OH&S plan also should include measures for prevention of COVID-19. Detailed description of the measures and recommendations from the World Bank/WHO and Ministry of Health are presented in Error! Reference source not found.5. The COVID-19 prevention measures contains recommendations from the World Bank / WHO, as well as recommendations from the national occupational health & safety association in the form of a Guide that the Contractor of the construction works needs to implement. The Contractor is required to follow/update and implement the measures that are currently in force and adopted by the Government as binding at national level. Official site for information related to COVID 19 on national level is [www.stirioficiale.ro](http://www.stirioficiale.ro)

## 7. PUBLIC CONSULTATION

The final draft ESMP has been posted at the MoH web-site and locally, and local public consultation have been organized by the MoH.

The actual situation has limited the project's ability to have full scale public consultation, therefore online consultations have been organized, as mentioned below – by the MoH, City Council and local Timisoara Hospital.

The ESMP was available at the Timisoara hospital's site <https://www.hosptm.ro/> together with the Form for submitting comments (see Annex 8)

Comments were received during a longer period, from 19 June towards 25 July 2020.

The comments received have not been substantial and did not request any modification to the final draft ESMP as approved before the public Consultation (see Annex 9).

The final version of the ESMP will be available on the MoH website and Municipality/Hospital websites for the whole period of the project implementation.



## 8. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN- Timisoara Burn Center

This ESMP seeks to manage and keep to a minimum the negative impacts of the construction development and at the same time, enhance the positive and beneficial impacts.

A copy of the ESMP must be kept on site during the construction period at all times. This ESMP will be made binding on all contractors operating on the site and is included within the Contractual Clauses.

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility	Cost of mitigation activities <sup>2</sup>
Preparation activities during demolition phase and site clearance	<b>Possible adverse social and health impacts to the population, drivers and workers due to demolition activities</b>	Short term impact during the demolition phase and clearance of the site	<ul style="list-style-type: none"> <li>➤ Establish and maintain a clear procedure for demolition of old construction in accordance with safety instructions</li> <li>➤ Clear procedure to be implemented for identification of asbestos slabs and their handling</li> <li>➤ Clear procedure to be followed for collection and disposal of regular and special demolition debris</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor</li> <li>• Supervisor</li> </ul>	•
Demolition activities	<b>Risk of spreading COVID 19 virus amongst onsite workers and community members living in the vicinity</b>	Medium term impact	<ul style="list-style-type: none"> <li>➤ Compliance with World Bank Group EHS Guidelines, WHO COVID-19 Guidelines and national regulations</li> <li>➤ Use project GRM to convey and manage any suspected cases of infection immediately</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor</li> <li>• Supervisor</li> <li>• PMU</li> </ul>	•
Demolition activities:  Assure that waste is collected in an appropriate	<b>Wastes generation during demolition works</b>	Short term impact	<ul style="list-style-type: none"> <li>➤ Waste collection and disposal pathways and sites will be identified for all major waste types expected from construction activities</li> <li>➤ Mineral/solid construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate places</li> <li>➤ Construction waste will be collected and disposed properly</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor</li> <li>• Supervisor</li> </ul>	•

<sup>2</sup> Cost of mitigation activities is defined by the contractor in relevant items in bidding documents, either in a distinct chapter (Environmental protection) or included in the unitary price of each item

manner and disposal is not done in unauthorized areas			<ul style="list-style-type: none"> <li>on authorized landfills by licensed collectors</li> <li>➤ The records of waste disposal will be maintained as proof for proper management as designed</li> <li>➤ Whenever feasible the contractor will reuse and recycle appropriate and viable materials</li> </ul>		
Taking all measures to reduce noise pollution for demolition staff and local community	<b>Noise pollution during demolition</b>	Short term impact	<ul style="list-style-type: none"> <li>➤ Organize work so that time spent in noisy areas is limited</li> <li>➤ Planning the noise-producing activities so that their performance affects as fewer workers as possible</li> <li>• Implementing work programs to control exposure to noise</li> <li>• Use of sound absorbing materials and filters/barriers to reduce reflected sounds</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor</li> <li>• Supervisor</li> </ul>	•
	<b>Air pollution during demolition works</b>	Short term impact	<ul style="list-style-type: none"> <li>• During demolition activities it is necessary to reduce dust by spraying with water and / or installation of dust absorption devices</li> <li>• It is strictly forbidden to burn building materials / waste on the ground</li> <li>• For transporting any other dusty material at the work site, it is necessary to moisten or cover the load</li> <li>• Dust reduction on land during the dry season of the year is done by moistening the soil surface.</li> </ul>	•	•
Ensuring that all conditions are fulfilled on site for the staff and that passers-by or children do not enter the site at any time.	<b>Health and safety hazards during demolition</b>	Short term impact	<ul style="list-style-type: none"> <li>• Ensure construction workers are given safety instruction, equipment and working clothes</li> <li>• Special instruction/warning signs must be installed on the facility</li> <li>• Ensure safety officers on site</li> <li>• Provide appropriate sanitary and solid waste disposal facilities for use by construction workers</li> <li>• Provide first aid and protection kits</li> <li>• Ensure effective signage for the public and ensure that all exposed construction areas are fenced from public access. Security should enforce that access on site is made through an ID and in strict connection to the works</li> </ul>	•	•
	<b>Loss of soil resources, land/soil degradation and</b>	Short term impact	<ul style="list-style-type: none"> <li>• Compliance of the construction Detail Design with the national environmental, industrial safety, construction, architectural, technological and public health regulations</li> <li>• Location of building in place with low soil productivity</li> </ul>	•	•

	<b>pollution during construction</b>		<ul style="list-style-type: none"> <li>• Proper design to minimize area under construction</li> <li>• If unfeasible, ensure soil protection through dead and live soil protection structures</li> <li>• Dislocate excavated fertile topsoil (if any) to adjacent agricultural lands</li> <li>• Incorporate protective design features (e.g., drainage structures and plant vegetation on slopes)</li> <li>• A proper rainwater/drainage system should be installed in order to exclude the flooding potential, landslide and/or erosion processes</li> <li>•</li> </ul>		
Construction phase	<p><b>Possible adverse social and health impacts to the population, drivers and workers due to:</b></p> <ul style="list-style-type: none"> <li>– Lack of ensured safety measures at the start of repairs and structural consolidation works</li> <li>– Injury passing near by the construction site</li> <li>– Not compliance with strict OH&amp;S standards and work procedure</li> </ul>	<p>Local/ within public institutions and services area in the city</p> <p>Short term during the repairs and structural consolidation period</p> <p>Significance - major</p>	<ul style="list-style-type: none"> <li>➢ Establish the access roads, prior to start up activities;</li> <li>➢ The construction site will be temporarily fenced, as jointly established by the customer and the systemization office, in order to prevent the access of unauthorized persons, especially when the site is closed, and for protection against thefts, etc. ;</li> <li>➢ Connection to the utilities: <ul style="list-style-type: none"> <li>• For site management purposes, the contractor will take all the necessary measures, together with the power supply and phone network companies, in order to temporarily connect the construction site.</li> <li>• The construction site must have artificial lighting when the works are carried out before sunrise or after sunset or in spaces where there is not enough natural light.</li> </ul> </li> <li>➢ Security: The Contractor must ensure presence of a Health and Safety Officer, in accordance with Romanian legislation</li> <li>➢ The contractor must ensure the protection of the site during off-work hours (at night, during weekends ...).</li> <li>➢ Application of good construction practice for marking out the construction site including: <ul style="list-style-type: none"> <li>• Warning tapes and signage need to be provided;</li> <li>• Installation of Notice board with general information about the project, Contractor and Supervisor at street;</li> <li>• Forbidden entrance of unemployed persons within the warning tapes;</li> <li>• Community and Worker's OH&amp;S measures should be applied (first aid, protective clothes for the workers, appropriate machines and tools);</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Contractor – Bidder</li> <li>• Supervisor</li> <li>• Municipal staff (Communal Inspector and Environmental Inspector)</li> <li>• PMU</li> <li>• Safeguard specialist</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

			<ul style="list-style-type: none"> <li>• The street and around sidewalks/ small roads should be kept clean;</li> <li>• The mobile toilet should be placed on the construction site;</li> <li>• Machines should be handled only by experienced and trained personnel, thus reducing the risk of accidents;</li> <li>• Larger quantities of flammable liquids should not be kept on the site along the construction street.</li> </ul>		
	<p><b>Soil Pollution</b> Destruction of the biological surface layer of soil due to the excavation.</p> <p>Soil pollution with hazardous substances (accidental leakage on soil, fuel, or oil from means of car transport)</p> <p>Generating inert wastes (broken concrete and debris from Demolition):</p> <p>Generate packaging waste from unpacking materials purchased for the job.</p> <p>Generation of metallic waste (from dismantling of electric cables, demolition/dismantling iron):</p>	<p>Local/ within the public institutions and services area short term/ major</p>	<ul style="list-style-type: none"> <li>• In the execution of the excavations, the biological surface layer from the surface shall be stored separately, without mixing gravel or earth from lower states; The surface State shall be used in the field of landscaping after the completion of construction works and waste disposal</li> <li>• Use auto and machine tools in perfect operating condition – no oil or fuel leakage</li> <li>• In case of accident of leakage of petroleum products on the ground, the decontamination of the soil infested by the removal, mixing with biodegradable material and the evacuation of portions of soil contaminated with oil in containers, in spaces Specially arranged until their decontamination by authorized companies, certified by the environmental authority. Decontamination is executed by specific methods by companies certified by the environmental authority</li> <li>• Controlled storage on the concrete platform. Removal from the site by the contractor of the work with specialised firms or reuse as refill material in constructions</li> <li>• Waste Records acc. Gov. Decision 856/2002 and packaging and waste from packaging according to GD 621/2005</li> <li>• The recovery of packaging waste by companies authorised on the basis of supporting documents.</li> <li>• Temporary storage by category of waste, on the fitted</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor – Bidder</li> <li>• Supervisor</li> <li>• Municipal staff (Communal Inspector and Environmental Inspector)</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

			<p>concrete platform.</p> <ul style="list-style-type: none"> <li>• Reusable waste will be taught on the basis of a Receipt to the beneficiary of the work. Not Reusable wastes will be eliminated by companies authorized on the basis of supporting documents and copies thereof will be taught to the beneficiary of the work</li> </ul>		
<p><b>Possible emissions by transportation vehicles and impact on air quality in the City of Timisoara due to:</b> Gases emissions of dust-suspended particulates and traffic congestion within the public institutions and services area</p>	<p>Local/ within the public institutions and services area short term/ major</p>	<ul style="list-style-type: none"> <li>• Construction site, transportation routes and materials handling site should be water-sprayed on dry and windy days;</li> <li>• Construction materials should be stored in appropriate places covered to minimize dust;</li> <li>• Vehicle loads likely to emit dust need to be covered;</li> <li>• Usage of protective masks for the workers if the dust appears;</li> <li>• Restriction of the vehicle speed within the construction location;</li> <li>• Perform regular maintenance of the vehicles and construction machinery in order to reduce the leakages of motor oils, emissions and dispersion of pollution;</li> <li>• Burning of debris from ground clearance not permitted.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor – Bidder</li> <li>• Supervisor</li> <li>• PMU</li> <li>• Safeguard specialist</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	
<p><b>Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the site</b></p>	<p>Local/within the public institutions and services area short term /minor</p>	<ul style="list-style-type: none"> <li>• Whole noise protection area is located in public institutions and services zone and belong to the area with the maximum allowed noise level should be 40dBA for night and 50dBA for evening and day;</li> <li>• The construction work should be not permitted during the nights; the operations on site shall be restricted to the hours 7.00 -19.00.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor – Bidder</li> <li>• Supervisor</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	

	<p><b>Contamination with asbestos</b> ( from demolition) of adjacent area, soil, water resources.</p>	<p>Local/ within the public institutions and services area short term/ major</p>	<ul style="list-style-type: none"> <li>• Identify waste material containing asbestos</li> <li>• Establish codes for the sorted waste, according to Decision 2000/532/EC establishing a list of wastes</li> <li>• Employ a licensed waste operator to remove asbestos waste using appropriate safety equipment</li> <li>• Dispose of asbestos waste at a landfill site licensed to receive such waste</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<p>Possible adverse environmental impact and health effects could occur as a result of <b>generation of the different waste streams</b></p> <p>The <b>inappropriate waste management</b> and not in time collection and transportation of waste streams</p>	<p>Local within the public institutions and services area</p> <p>short term/ major</p>	<ul style="list-style-type: none"> <li>• Preparation, approval and implementation of the Waste Management Plan approved by the local administration;</li> <li>• Identification of the different waste types at the construction site (soil, sand, bottles, food, etc.) and proper classification according the national List of Waste (Official Gazette no.100/05);</li> <li>• The main waste would be classified under the Waste Chapter 17 “Construction and demolition wastes (including excavated soil from contaminated sites)” with the waste code 17 05 04 – Excavated soil, 17 09 04 – Mixed waste from construction site;</li> <li>• Small amount of solid municipal waste could be found (food, beverages), as well as packaging waste (paper, bottles, glass, etc.).</li> <li>• Collection of the generated waste on daily basis, selection of waste, transportation and final disposal on appropriate places (according the type of waste).</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor – Bidder</li> <li>• Supervisor</li> <li>• PMU</li> <li>• Safeguard specialist</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
			<ul style="list-style-type: none"> <li>• Collection, transportation and final disposal of the inert and communal waste;</li> <li>• Possible hazardous waste (motor oils, vehicle fuels) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose the hazardous waste;</li> <li>• The materials should be covered during the transportation to avoid waste dispersion;</li> <li>• Burning of construction waste should be prohibited.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor</li> <li>• Supervisor</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

	Environment trees and nature	Medium	<ul style="list-style-type: none"> <li>The Client's Supervisor will register the number of trees and the existing natural green grass areas, before start of the construction starts. The Contractor will restore the damaged vegetation at his own cost</li> </ul>	<ul style="list-style-type: none"> <li>Contractor Supervisor PMU</li> <li>Safeguard specialist</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
	Health and Safety of communities impacted by proximity to construction activities, change traffic pattern, etc.	Short-term	<p>OHS protocols following the World Bank Group Environmental Health and Safety Guidelines are established to ensure community safety during the works.</p> <ul style="list-style-type: none"> <li>The local construction and environment inspectorates and communities are notified for the project activities.</li> <li>All work is carried out in a safe and disciplined manner designed to minimize impacts on workers and citizens in the vicinity</li> <li>Clear warning signs are displayed for the public and public transport about all potentially hazardous works.</li> <li>A traffic control system and staff training are organized, especially for providing access to the facility and nearby intensive traffic.</li> <li>Safe walkways and passages for pedestrians in places of public transport traffic and construction vehicles are provided.</li> <li>Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement</li> <li>Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.</li> <li>Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.</li> </ul>	<ul style="list-style-type: none"> <li>Contractor Supervisor PMU</li> <li>Safeguard specialist</li> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
	Risk of spreading COVID 19 virus amongst onsite workers and	Medium	<ul style="list-style-type: none"> <li>Compliance with World Bank Group EHS Guidelines, WHO COVID-19 Guidelines and national regulations</li> <li>Use project GRM to convey and manage any suspected cases of infection immediately</li> </ul>	<ul style="list-style-type: none"> <li>Contractor</li> <li>Supervisor</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

	community members living in the vicinity		<ul style="list-style-type: none"> <li>• Report case(es) to MOH COVID-19 hotline</li> </ul>	<ul style="list-style-type: none"> <li>• PMU</li> </ul>	
Operation phase	Waste management	Medium term impact	<ul style="list-style-type: none"> <li>• Identify the waste produced in operation of Hospital</li> <li>• Follow the Waste management Plan approved at level of Hospital</li> <li>• Follow the performance of the companies contracted to collect and safely dispose diferent kind of waste</li> </ul>	<ul style="list-style-type: none"> <li>• Hospital management</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>



## 9. ENVIRONMENTAL AND SOCIAL MONITORING PLAN – Timisoara Burn Center

<i>What parameter to be monitored?</i>	<i>Where is the parameter to be monitored?</i>	<i>How is the parameter monitored?</i>	<i>When is the parameter monitored (frequency of measurement)?</i>	<i>Why is the parameter monitored?</i>	<i>Responsibility</i>	
					<i>Construction of building</i>	<i>Operation of building</i>
Demolition, Construction & Operational Phases						
Feedback (complaints, queries, and any reports of COVID 19 related infections) provided by workers, communities living in the vicinity and the general public	<ul style="list-style-type: none"> <li>• On the site</li> <li>• Project GRM channels</li> </ul>	GRM logbook	Number of feedback cases per week Number of reports of COVID-19 infection on a daily basis	To mitigate social and OHS risks	Contractor – H&S Responsible, Supervisor, PMU Safeguard specialist	
Project stage: Preparation activities/ Startup of construction						
The safety protection measures applied for the workers during the demolition phase	On the site	Visual checks and accrding with the procedure for demolition	During the demolition phase and clean-up activities	To prevent health and safety risks – mechanical injuries during the demolition phase	Contractor – H&S Responsible, Supervisor, PMU Safeguard specialist	
Dust and noise during the demolition phase	On the site	Visual checks and accrding with the procedure for demolition	During the demolition phase and clean-up activities	To prevent contamination of the environment with potential asbestos and related dust  To prevent complaints from neighbours for high level of noise	Contractor – H&S Responsible, Supervisor, PMU Safeguard specialist	
Collection and transport of demolition or hazardous waste (if any occurs)	On the site for identification of hazardous waste and on the the safety	Review the transportation list and conditions at the storage facility	Before the transportation of the hazardous waste (if there is any)	Not to dispose the hazardous waste from demolition debris on the municipal waste	Authorized Contractor for collection and transportation of hazardous waste (if any occurs)	

<i>What parameter to be monitored?</i>	<i>Where is the parameter to be monitored?</i>	<i>How is the parameter monitored?</i>	<i>When is the parameter monitored (frequency of measurement)?</i>	<i>Why is the parameter monitored?</i>	<i>Responsibility</i>	
					<i>Construction of building</i>	<i>Operation of building</i>
	temporary storage			landfill	PMU Safeguard specialist	
The safety protection measures applied for the workers during the construction phase	On the construction site	Visual checks	At the beginning of each working day during the project activities	To prevent health and safety risks – mechanical injuries To be in compliance with national communal health regulation and OH&S standards	Contractor - Bidder Supervisor Communal Inspector in the <b>Timisoara</b> municipality PMU Safeguard specialist	
Safety traffic flow through the construction site in public institutions and services area in city of <b>Timisoara</b>	On the site	Visual monitoring	During the working day	To ensure the coordinated traffic flow through the city of <b>Timisoara</b>	Contractor - Bidder Supervisor Communal Inspector in the <b>Timisoara</b> municipality	
Prepared and approved Waste Management Plan and its implementation	On the site	Review the documentation and approval by the Supervisor is needed	At the beginning of work with new material/s	To ensure minimization of risks for improper waste handling, temporary/final disposal, collection and transportation	Contractor – Bidder Supervisor	
Collection and transport as well as safe disposal of	On safety temporary storage	Review the transportation list and	Before the transportation of the hazardous	To improve the waste management practice on	Authorized Contractor for collection and transportation of	

<i>What parameter to be monitored?</i>	<i>Where is the parameter to be monitored?</i>	<i>How is the parameter monitored?</i>	<i>When is the parameter monitored (frequency of measurement)?</i>	<i>Why is the parameter monitored?</i>	<i>Responsibility</i>	
					<i>Construction of building</i>	<i>Operation of building</i>
hazardous waste (if any occurs)		conditions at the storage facility	waste (if there is any)	municipality and national level/ Not to dispose the hazardous waste on the waste disposal spots	hazardous waste (if any occurs) PMU  Safeguard specialist	

## **9. Annexes 1-10**

- Annex 1. Legal and Institutional Framework on EIA
- Annex 2. Romanian Licensing and Permitting Procedures
- Annex 3. Safeguards Policies of the World Bank
- Annex 4. Environmental Guidelines for Civil Works Contracts
- Annex 5. COVID 19 Consideration in Construction / Civil Works projects
- Annex 6. Infection Control and Waste Management Plan (ICWMP) Template
- Annex 7. Main issues regarding Asbestos Waste
- Annex 8. Form for submitting comments to ESMP
- Annex 9. Minutes of local public consultations for new building
- Annex 10. Photo Gallery

## LEGAL AND INSTITUTIONAL FRAMEWORK ON EIA<sup>3</sup>

### International Laws

1. Article 11(2) of Romania's Constitution (as revised by Law No. 429/2003) provides that treaties ratified by Parliament according to the law are part of national law.

2. The following treaties to which Romania is party relate to the protection of natural habitats:

- Ramsar Convention on Wetlands (Ramsar, 1971), ratified by Romania on 21/9/91.
- The Danube Delta and Small Island of Braila have been designated as Ramsar Sites.
- Convention on the Conservation of Migratory Species (Bonn, 1979), ratified by Romania on 1/7/98.
- Convention on Biological Diversity (Rio de Janeiro, 1992), ratified by Romania on 17/8/94.
- Convention on the Conservation of European Wildlife and Natural Habitats (Berne, 1979). Accession by Romania on 18/5/93.
- Convention concerning the protection of the World Cultural and Natural Heritage (Paris, 1972). Accession by Romania on 16/5/90. Several areas, including the Danube Delta are designated as UNESCO World Heritage Site.
- Danube River Protection Convention signed in 1994.

3. On environmental assessment, relevant treaties ratified by Romania include:

- UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, 1998), ratified by Romania by Law no.86/2000.
- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), ratified by Romania by Law no.22/2001.

4. The following treaties ratified by Romania relate to cultural property:

- European Convention on the Protection of the Archaeological Heritage (revised) (Valetta, 1992), ratified by Romania 20/11/97.
- Convention concerning the protection of the World Cultural and Natural Heritage (Paris, 1972). Accession by Romania on 16/5/90. Several areas, including the Danube Delta are designated as UNESCO World Heritage Site.

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<sup>3</sup> The list presented here is comprehensive – not all the included legislation is relevant to the project interventions

## **European Union's "acquis communautaire"**

5. Relevant legal texts include:

- Treaty concerning the Accession of the Republic of Bulgaria and Romania to the European Union, signed by the EU Member States and Bulgaria and Romania in Luxembourg on 25 April 2005.
- Protocol concerning the conditions and arrangements for admission of the Republic of Bulgaria and Romania to the European Union (Annex VII; list referred to in Article 20 of the protocol; transitional measures, Romania; Section 9 on environment).

### *Environmental Assessment*

- Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.
- Directive 2001/42/EC on Strategic Environmental Assessment.

### *Pollution Prevention and Control; Integrated Permitting*

- Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control).

### *Waste Management*

- Council Directive 1999/31/EC of 26 April 1999, on the landfill of waste.
- Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste.
- Council Directive 86/278/EEC of 12 June 1986, on the protection of the environment, and in particular the soil, when sewage sludge is used in agriculture (as amended by Directive 91/692/EEC, EC No. 807/2003 of 14 April 2003, EC No. 219/2009).
- Council Directive 94/62/EC of 20 December 1994 on packaging and packaging of waste (as implemented by Commission Decisions 97/129/EC and 97/138/EC and amended by Directive 2004/12, Directive 2005/20, Regulation 219/2009, Directive 2/2013, Directive 720/2015).

### *Water and Waste Water*

- Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment, as amended by Commission Directive 98/15/EC, Regulation 1882/2003, Regulation 1137/2008, Directive 2013/64/EU.

- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption as amended by Regulation 1882/2003, Regulation 596/2009.
- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.
- Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.

#### *Nature Protection*

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna.

#### *Air Quality*

- Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

### **Romanian Law**

Relevant Romanian law includes the following:

#### *Environmental Assessment*

- EGO 195/2005 on environmental protection, approved by Law no.265/2006. Framework Law on Protection of the Environment.
- GD 445/2009 (published in M.Of no. 481 of 13/07/2009). Framework procedure for environmental impact assessment, and approval of list of public and private projects subject to this procedure.
- MO 135/2010 (published in M.Of. no. 274 of 04/27/2010). for approval of the EIA application methodology.
- MO 863/2002 (published in M.Of. no. 52 of 01/30/2003). Guidelines on EIA methodology (screening, scoping, and review of study).
- MO 864/2002 (published in M.Of. no. 397 of 06/09/2003) on procedures and public consultation in case of transboundary impacts.
- MO 1026/2009 (published in M.Of 562 on 08/12/2009) approval of the conditions for the development of the environmental report, EIA and other environmental documentations,.
- MO 1798/2007 (published in M.Of. 808 on 11/27/2007) Methodology for the environmental permit issuance.

#### *Strategic Environmental Assessment*

- GD 1076/2004 (published in M. Of nr. 707 of 05.08.2004) on procedures for environmental assessment of plans and programs.

- MO 995/2006 on the list of plans and programs subject to the environmental assessment procedure.

#### *Nature Protection*

- EO 57/2007 regarding the protected natural areas and the conservation of natural habitats, wild flora and fauna.
- GD 230/2003.
- MO 552/2003.
- MO 1052/2014.

#### *Waste, Waste Water, Air and Noise Pollution*

- MO 662/2006 for the approval of the procedure and competencies for issuing water management permits and authorizations
- Water Law 107/1996 with subsequent modifications
- MO no. 1012/ 2005 for the approval of the procedure for public information access related to the water management field
- MO no. 1182/2005 MoEWM and 1270 /2005 MoAFRD for the approval of the Code of the agricultural good practices for the protection of the waters against pollution with nitrates from agricultural sources, as it was amended by MO 990/2015.
- MO no. 296/216/2005 regarding the framework Program of actions for the elaboration of the action programs in vulnerable zones at the pollution with nitrates from agricultural sources
- MO no. 242/197/2005 regarding the monitoring system of the sole from the vulnerable and potential vulnerable zones
- Law 458/2002 regarding drinking water quality, republished
- GD 974/2004 on inspection and monitoring of drinking water
- GD 349/2005 regarding management of solid waste
- GD 188/2002 for the approval of certain norms concerning the conditions of discharging waste water into the aquatic environment
- GD 235/2007 regarding management of oil waste
- Law 249/2015 regarding management of packaging and packaging of waste
- GD 856/2002 regarding records of disposal and collection of solid waste and approval of list including hazardous waste
- Law 211/2011 regarding solid waste
- Law 104/2011 regarding ambient air quality.
- GD 1470/2004 regarding approval of National strategy for solid waste management and National Plan for solid waste management.



### *Cultural Property*

- Law 422/2001 on protection of historic monuments, republished
- GO 43/2000 on protection of the archaeological heritage, republished
- Law 150/1997 ratification of the European Convention on the Protection of Archeological Heritage (Valetta, 1996).

## Romanian Licensing and Permitting Procedures<sup>4</sup>

### Introduction

In conformity with Emergency Ordinance for Environmental Protection No.195/2005 including the respective updates - the Governmental Decision No. 445/2009, and the MO No. 863/2002 and 135/2010, the decision-making process of the EIA regarding the issuance of the Environmental License to construct and the Environmental Permit to operate is well developed. The Environmental Protection regulation sets out the EIA requirements and principles; the GD 445/2009 sets out the procedures, while the OM 863/2002 and 135/2010 present in detail the procedures for EIA and for issuing the environmental license.

Based on the Romanian law, any development of a new facility or modification of an existing one requires the approval of an EIA before the environmental license (environmental agreement) and permit to operate (environmental authorization) is approved by LEPAs. For any activities not covered in the list of mandatory EIA (Annexes I and II of the GD no. 445/2009), the LEPAs use selection criteria to determine whether such activities could have a significant environmental impact. Existing facilities require an environmental permit from the LEPAs, which includes assessment of compliance with the environmental standards (e.g., conditions related to air, water, and soil reflecting existing standards).

The GD 445/2009 presents the steps of the procedure, the requirements that the physical or legal certified persons to prepare the impact studies, and the list of activities which are subject to the EIA procedure. Overall, the EIA procedure includes a screening stage, a scoping stage, and a validation stage.

Procedures for Receiving an Environmental License to Construct (or the Environmental Agreement)

The procedure for issuing the environmental license to construct is described in detail in the following steps and briefly presented in the flow chart.

### Step 1. The initial screening of the new project/investment

This is determined by the local EPA responsible for the location (commune, city) where the investment will develop. When requesting the Environmental License to Construct, *the Beneficiary is responsible to present to the local EPA or MEWF a Technical File* including the following documentation:

- Request Form of the EA in conformity with the MO No. 135/2010; this request is attention to the local EPA or to the MEWF depending on the geographical location of the project;
- Urban Planning Certificate and the corresponding licenses and permits (obtained at the level of Feasibility Study) based on the corresponding law;
- Contracts with the local solid waste company for collection of the solid wastes and with "Apele Romane" for water supply and sewage discharges (other authorizations from local utilities may be required based on necessity);

- Technical Memorandum (standard form) in conformity with Annex .2 of the MO No. 1798/2007 (prepared by the Consultant/Firm that developed the Feasibility Study);
- Technical Note (standard technical form) in conformity with the OM No. 839/2009 (prepared by the Consultant/Firm that developed the Feasibility Study);
- Fee (differs depending on the stage of the EA process);
- Public announcement/debate regarding the request to obtain the Environmental Permit in conformity with Annex 3 of the MO No. 1798/2007.

Within the EPA, a Technical Review Committee (TRC) is formed, which includes members of the local EPA, the National Environmental Guard (NAG), the National Water Administration “*Apele Romane*”, Sanitary and Urban Institutes and those authorities responsible for environmental permits authorizations. The TRC members analyze the documentation presented within the Technical File and issue one of the following three classifications of the project investments: (i) activities are of insignificant environmental impact and therefore the project is NOT subject to environmental procedure; (ii) activities are of low environmental impact and the simplified licensing procedure will apply; and (iii) activities are of significant environmental impact and the full environmental permitting procedure will apply. Furthermore, (for cases (ii) and (iii)) the EPA authorities together with the members of TRC and the Beneficiary are visiting the site of the future investment to: (i) verify its location as presented in the Technical File; and (ii) complete the List of Control developed according to the OM No. 863/2002.

## **Step 2. EIA Report Preparation**

The EPA reviews and approves the List of Control which includes the conclusion presented by the TRC, based on which documents it announces the Beneficiary of his obligation to develop the EIA study (the impact study).

***The Beneficiary*** is obliged to:

- Prepare the EIA report in conformity with the OM No. 863/2002. The EIA report should be developed only by physical persons or consulting firms independent of the Beneficiary and the person who developed the Feasibility Study, that are accredited for developing such technical studies for Infrastructure Projects/Investments including the legal conditions stipulated in the OM No. 1026/2009;
- Hire based on contract and competition through expression of interest/invitation to submit proposals process the firm/physical person who will develop the EA report;
- Prepare and sponsor the public announcement of the definition of the project (this is the 2nd public information in the EIA process approval);

## **Step 3. The Review of the EIA Report**

At this stage, the EPA is in charge with the following steps: (i) completes the List of Control for the EIA Report analysis process; (ii) prepares the Public Consultation; and (iii) communicates the results to the Beneficiary.

***The Beneficiary*** is obliged to:

- Present to the local EPA the EIA report, with the help of the consulting firm that developed the EIA;

- Prepare and launch the public consultation in the presence of those affected, NGOs, or interested persons including presentation of the project and the EIA Report during of a public debate;
  - Evaluate the discussions and conclusions received during the public consultation;
  - Reply to the public comments and requests with a valid technical solution.

#### **Step 4. Decision and Approval of the Environmental License to construct**

The EPA issues the Environmental License to start construction of the investment within 30 days after the final decision.

**The Beneficiary** is obliged to:

- Announce the public about the approval of the Environmental License;
- Request of Environmental Permit to Operate

Additional points:

- The EIA report is prepared at the level of the project's Feasibility Study, in conformity with GD No. 445/2009;
- The minimum information presented by the Beneficiary during the request to obtain the Environmental License should be also completed based on conditions recommended by the foreign donors (EBRD, WB, EIB) and/or as required by the EU legislation and the Romanian legislation in force;
- For those investments obtained through ISPA or SAPARD funds, the conditions during the project operation established through the Environmental Permit will take in consideration the limits of the pollutants' discharges required by the EU and Romanian legislation. However, the national limits will prevail if they are more restrictive than those imposed by the EU legislation.
- The Environmental License is valid during the entire period of the project construction, but will expire if the investment works will not start in maximum 2 years from its approval. During the period of investment constructions, the local environmental protection authorities will monitor those conditions imposed by the Environmental License (please note detailed information on the monitoring process in the next section);
- The Beneficiary is obliged by law to inform the environmental protection authorities in writing any time when there is a significant modification of the initial conditions of the project based on which the current Environmental License was issued.

#### **Procedures for Obtaining an Environmental Permit to Operate**

The Environmental Permit to Operate investments with significant impact on the environment is issued by the EPA in conformity with OM No. 1798/2007. The local EPA together with the local National Environmental Guard as well as representatives of National Agency "Apele Romane" is inspecting the site after construction and issue a technical note with observations at the site (e.g., Environmental Audit).

The Environmental Audit of existing facilities is carried out only by certified persons paid by the Investor and includes: (i) a checklist including characteristic elements of the investment; (ii) an environmental study including data collection and technical review of all environmental aspects,

before taking a decision on the scale of potential or existing environmental impacts from the site; and (iii) site investigations to quantify the potential scale of contamination of the site. Compliance programs are usually required based on the result of the environmental audit.

**The Beneficiary** is in charge with:

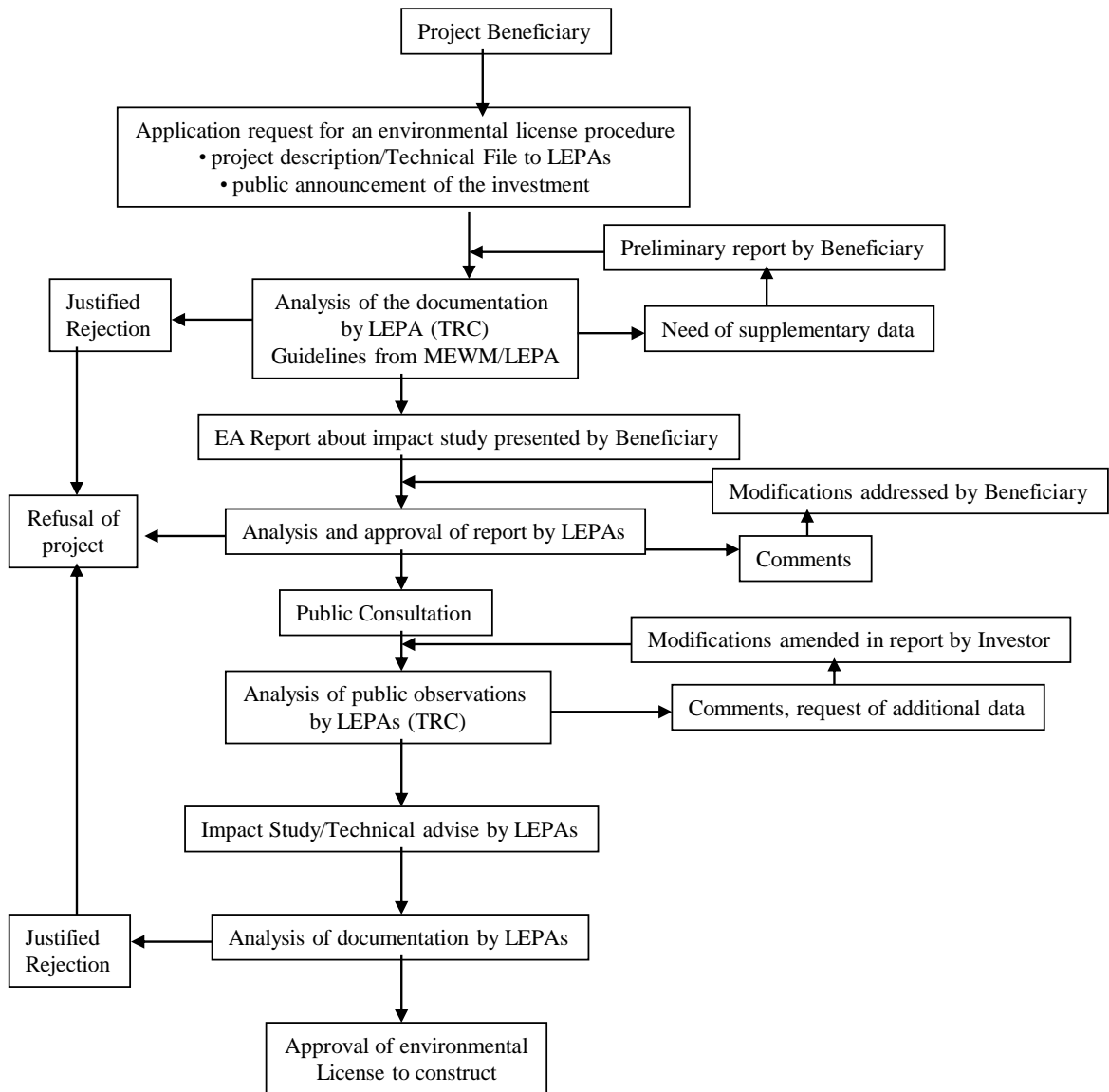
- Request the Environmental Permit to the local EPA;
- Prepare a *Technical File* as in the previous case;
- Announce the public about the request to start operations;
- Annual renewal of the permit once it is issued (it is valid for 5 years).

Standards (ambient and emission limits) are usually followed to comply with the environmental protection as requested by EU. Currently there are ambient standards for air, noise, waste and discharges of certain substances in the water.

Monitoring capacity during the Construction Period and After the Issuance of the Environmental Permit to Operate

During constructions, LEPAs together with the NGA and “Apele Romane” are in charge with visiting the site of the project and inspecting the environmental compliances stipulated in the Environmental License and Environmental Permit.

The NGA inspectors may accompany the LEPAs’ inspectors for site visits according to an inspection program. Following the site visit and checking the compliance, the inspectors prepare a report based on which they may advise the operators on how to meet standards and permit conditions. If a facility/project does not comply with relevant standards, it will first receive a warning from the inspector followed by a certain amount of time necessary to take care of the steps that comply with the permit. If these steps are not performed, an administrative fine will be imposed (the size of the fine varies as presented in the legislation). Finally, non-compliance will result in court action.



**Figure.** Procedures for issuing the environmental license to start-up investments of a new facility



## **SAFEGUARDS POLICIES OF THE WORLD BANK**

Below are the key extracts from OP that give the idea of preventive mechanisms of the World Bank and help to understand and analyze information on environmental, social and legal policies.

### **OP 4.01 Environmental Assessment**

EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation.

EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects.

EA considers natural and social aspects in an integrated way. EA is initiated as early as possible in project processing and is integrated closely with the economic, financial, institutional, social, and technical analyses of a proposed project

### **OP 4.04 Natural habitats**

The Bank promotes and supports natural habitat conservation and improved land use by financing projects designed for environmental conservation. The Bank promotes the rehabilitation of degraded natural habitats and does not support projects that involve the significant conversion or degradation of critical natural habitats.

### **OP 4.09 Pest Management**

In assisting borrowers to manage pests that affect either agriculture or public health, the Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides.

The Bank requires that any pesticides it finances be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank. The FAO's Guidelines for Packaging and Storage of Pesticides (Rome, 1985), Guidelines on Good Labeling Practice for Pesticides (Rome, 1985), and Guidelines for the Disposal of Waste Pesticide and Pesticide Containers on the Farm (Rome, 1985) are used as minimum standards.

### **OP 4.11 Physical Cultural Resources**

This policy addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources include everything that remained after ancient inhabitants (holy places and battlefields) and unique natural sites such as waterfalls and canyons.

The Bank does not support projects threatening cultural resources that are property of population. The Bank supports only those projects that are located or designed in such a way as to prevent damage to the environment.



#### **OP 4.36 Forests**

Management, protection and sustainable development of forest ecosystem and its resources are necessary for reducing poverty and sustainable development.

The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats due to potential risk to biodiversity.

The Bank may finance harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations:

(a) have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management; or

(b) adhere to a time-bound phased action plan to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to the Bank.

#### **OP 4.37 Safety of dams**

The Bank distinguishes between small and large dams. Small dams are normally less than 15 meters in height. This category includes, for example, farm ponds, local silt retention dams, and low embankment tanks. For small dams, generic dam safety measures designed by qualified engineers are usually adequate.

#### **OP 7.50 Projects on international waterways**

This policy applies to the following types of international waterways: (a) any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states; (b) any tributary or other body of surface water that is a component of any waterway described in (a) above.

This policy applies to the following types of projects: hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial, and similar projects that involve the use or potential pollution of international waterways as described above.

#### **OP 7.60 Projects in disputed areas**

Projects in disputed areas may raise a number of delicate problems affecting relations not only between the Bank and its member countries, but also between the country in which the project is carried out and one or more neighboring countries. In order not to prejudice the position of either the Bank or the countries concerned, any dispute over an area in which a proposed project is located is dealt with at the earliest possible stage.

Document references to OP WB, Procedures for Environmental Assessment of WB and Environmental Protection Policy of WB are presented below.

## **Environmental Guidelines for Civil Works Contracts**

Contractors will be obliged to apply environmentally sound construction standards and procedures. All civil works contracts will have the following environment-protecting provisions:

1. Take measures and precautions to avoid adverse environmental impacts, nuisance or disturbances arising from the execution of the works. This shall be done by avoidance or suppression whenever possible rather than abatement or mitigation of the impact once generated.
2. Comply with all national and local environmental laws and regulation. Assign responsibilities for implementation of environmental actions and to receive guidance and instructions from the engineer or environmental authorities.
3. Minimize dust emissions to avoid or minimize adverse impacts on air quality.
4. Maintain foot and vehicular traffic flows and public access to neighboring sites and facilities. Provide markers, lights and temporary connections by bypasses for safety and convenience.
5. Prevent or minimize vibration and noise from vehicles, equipment and blasting operations.
6. Minimize disturbance to and restore vegetation where it is disturbed as a consequence of the works.
7. Protect surface and groundwater and soil quality from pollution. Appropriately collect and dispose of water material.

## COVID 19 Consideration in Construction / Civil Works projects

### I. CHALLENGES WITH CONSTRUCTION/CIVIL WORKS.

Projects involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the projectsuch as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

### II. DOES THE CONSTRUCTION CONTRACT COVER THIS SITUATION?

Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017) states (in the General Conditions, clause 6.7) that the Contractor will be required:

- to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation
- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

In addition, the Bank's Particular Conditions include a number of relevant requirements on the Contractor, including:

- to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities)
- to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
- gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
- to provide an easily accessible grievance mechanism to raise workplace concerns.

### III. WHAT PLANNING SHOULD THE BORROWER BE DOING?

PIUs should confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PIU, either directly or through the Supervising Engineer, should request details in writing from the main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).
- In making the request, it may be helpful for the PIU to specify the areas that should be covered. This should include the items set out in the section below and take into account guidance provided by national authorities, WHO and other organizations.
- The PIU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
- On sites where there are a number of contractors and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PIU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all contractors and sub-contractors understand the risks and the procedure to be followed.
- The PIU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the

PIU can play a valuable role in connecting project representatives with local Government agencies, and helping coordinate a strategic response, which takes into account the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity.

- Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

#### IV. WHAT SHOULD THE CONTRACTOR COVER?

The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). PIUs and contractors should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated.

Addressing COVID-19 at a project site goes beyond occupational health and safety, and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PIU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the project response to COVID-19.

(a) ASSESSING WORKFORCE CHARACTERISTICS Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

- The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.

- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

(b) ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK  
Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID - 19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring selfreporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

(c) GENERAL HYGIENE Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.
- Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.

- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

(d) **CLEANING AND WASTE DISPOSAL** Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

(e) **ADJUSTING WORK PRACTICES** Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:

- Decreasing the size of work teams.
- Limiting the number of workers on site at any one time.
  - Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing meal times to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.
- At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

(f) **PROJECT MEDICAL SERVICES** Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.
- Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on construction sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
- Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

(g) LOCAL MEDICAL AND OTHER SERVICES Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility, and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will



continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(h) INSTANCES OR SPREAD OF THE VIRUS WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(i) CONTINUITY OF SUPPLIES AND PROJECT ACTIVITIES Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

- Identify back-up individuals, in case key people within the project management team (PIU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2 month interruption of critical goods may be appropriate for projects in more remote areas.
- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).

- Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations.
- Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to restart work when it becomes possible or feasible.

(j) **TRAINING AND COMMUNICATION WITH WORKERS** Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them. • It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.

- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

(k) **COMMUNICATION AND CONTACT WITH THE COMMUNITY** Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the project site. The project should set out risk-based procedures to be followed , which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

- Communications should be clear, regular, based on fact and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.
- The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick.
- If project representatives, contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

## Infection Control and Waste Management Plan (ICWMP) Template

### 1. Introduction

1.1 Describe the project context and components;

1.2 Describe the targeted subproject

- Type: E.g. general hospital, clinics, inpatient/outpatient facility, medical laboratory;
- Special type of subproject in response to COVID-19: E.g. existing assets may be acquired to hold yet-to-confirm cases for medical observation or isolation;
- Functions and requirement for the level infection control, e.g. biosafety levels;
- Location and associated facilities, including access, water supply, power supply;
- Capacity: beds

1.3 Describe the design requirements of the subproject, which may include specifications for general design and safety, separation of wards, heating, ventilation and air conditioning (HVAC), autoclave, and waste management facilities.

### 2. Infection Control and Waste Management

2.1 Overview of infection control and waste management in the HCF

- Type, source and volume of healthcare waste (HCW) generated, including solid, liquid and air emissions (if significant);
- Classify and quantify the HCW (infectious waste, pathological waste, sharps, liquid and non-hazardous) following WGB EHS Guidelines;
- Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous. It's likely the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes.
- Describe the healthcare waste management system in the subproject, including material delivery, waste generation, handling, disinfection and sterilization, collection, storage, transport, and disposal and treatment works;
- Provide a flow chart of waste streams in the subproject if available;
- Describe applicable performance levels and/or standards;
- Describe institutional arrangement, roles and responsibilities in the subproject for infection control and waste management.

2.2 Management Measures

- Waste minimization, reuse and recycling: subproject should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety consideration.
- Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies: Subproject should adopt practice and procedures to minimize risks associated with delivering, receiving and storage of the hazardous medical goods.
- Waste segregation, packaging, color coding and labeling: Subproject should strictly conduct waste segregation at the point of generation. Internationally adopted method for packaging, color coding and labeling the wastes should be followed.
- Onsite collection and transport: Subproject should adopt practices and procedures to timely remove properly packaged and labelled wastes using

- designated trolleys/carts and routes. Disinfection of pertaining tools and spaces should be routinely conducted. Hygiene and safety of involved supporting medical workers such as cleaners should be ensured.
- Waste storage: Subprojects should have multiple waste storage areas designed for different types of wastes. Their functions and sizes are determined at design stage. Proper maintenance and disinfection of the storage areas should be carried out. Existing reports suggest that during the COVID-19 outbreak, infectious wastes should be removed from the subproject's storage area for disposal within 24 hours.
  - Onsite waste treatment and disposal (e.g. an incinerator): Many subprojects have their own waste incineration facilities installed onsite. Due diligence of an existing incinerator should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended.
  - Transportation and disposal at offsite waste management facilities: Not all subprojects have adequate or well-performed incinerator onsite. Not all healthcare wastes are suitable for incineration. An onsite incinerator produces residuals after incineration. Hence offsite waste disposal facilities provided by local government or private sector are probably needed. These offsite waste management facilities may include incinerators, hazardous wastes landfill. In the same vein, due diligence of such external waste management facilities should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended and agreed with the government or the private sector operators.

### 3. Emergency Preparedness and Response

Emergency incidents occurred in a subproject may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and wastewater treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, community, the subproject's operation and the environment. Thus, an Emergency Response Plan (ERP) that is commensurate with the risk levels is recommended to be developed.

### 4. Institutional Arrangements and Capacity Building

A clearly defined institutional arrangement, roles and responsibilities should be included. A training plan with recurring training programs should be developed. The following aspects are recommended:

- Define roles and responsibilities along each link of the chain along the cradle-to-grave infection control and waste management process;
- Ensure adequate and qualified staff are in place, including those in charge of infection control and biosafety and waste management facility operation.
- Stress the chief of the facility/subproject takes overall responsibility for infection control and waste management;
- Establish an information management system to track and record the waste streams in the subproject facility; and
- Capacity building and training should involve medical workers, waste management workers and cleaners. Third-party waste management service providers should be provided with relevant training as well.

### 5. Monitoring and Reporting

Many healthcare facilities (HCFs) in developing countries face the challenge of inadequate monitoring and records of healthcare waste streams. HCFs/subprojects should establish an

information management system to track and record the waste streams from the point of generation, segregation, packaging, temporary storage, transport carts/vehicles, to treatment facilities. HCF is encouraged to develop an IT based information management system should their technical and financial capacity allow.

As discussed above, the HCF chief takes overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices in the HCF. Internal reporting and filing system should be in place. Externally, reporting should be conducted per government and World Bank requirements.

## **Main issues regarding Asbestos Containing Material (ACM) and Asbestos waste to be considered within the Site specific ESMP**

Asbestos is a group of naturally occurring fibrous silicate minerals. It was once used widely in the production of many industrial and household products because of its useful properties, including fire retardation, electrical and thermal insulation, chemical and thermal stability, and high tensile strength. Today, however, asbestos is recognized as a cause of various diseases and cancers and is considered a health hazard if inhaled.

Because the health risks associated with exposure to asbestos are now widely recognized, global health and worker organizations, research institutes, and some governments have enacted bans on the commercial use of asbestos.

In the European Union the use of asbestos is banned since January 1, 2005, and in Romania through a Governmental Decision no. 734/2006 this was banned only for new materials. Products containing asbestos and which have been installed or were in operation before the date 1 January 2005 can be used until the end of their lifecycle.

Good practice is to minimize the health risks associated with ACM by avoiding their use in new construction and renovation, and, if installed asbestos-containing materials are encountered, by using internationally recognized standards and best practices to mitigate their impact. In all cases, the World Bank expects borrowers and other clients to use alternative materials wherever feasible.

ACM must be avoided in new construction. In reconstruction, demolition, and removal of damaged infrastructure, asbestos hazards must be identified and a risk management plan adopted that includes disposal techniques and end-of-life sites.

Asbestos-containing (AC) products include flat panels, corrugated panels used for roofing, water storage tanks, water, and sewer pipes etc.. Thermal insulation containing asbestos and sprayed asbestos for insulation and acoustic damping were widely used through the 1970s and should be looked for in any project involving boilers and insulated pipes.

As asbestos is often used in construction (mainly for roofing) in many countries including Romania, it can present a risk for the health of workers and population, who live near buildings that need capital repair with replacement of roofing or demolition.

PMU specialists must inform beneficiaries on potential risk for their health and instruct not using asbestos as construction material during construction/rehabilitation works.

### *AC sheets used as roofing*



In

this regards, ACM and asbestos waste must be properly removed, stored in a separate closed area and disposed (with the consent of local administration and environmental inspectors) on a landfill on the special area for disposal of that type of waste.

PMU must require the contractors that the removal, repair, and disposal of ACM shall be carried out in a way that minimizes worker and community asbestos exposure.

During reconstruction works, workers must avoid destroying asbestos sheets and properly dispose them at construction sites until final disposal happens. Workers must wear protective over garment, gloves and respirators during work with asbestos sheets.

Proper disposal of ACM is important not only to protect the community and environment but also to prevent scavenging and reuse of removed material. ACM must be transported in leak-tight containers to a secure landfill operated in a manner that precludes air and water contamination that could result from ruptured containers.

The removal and disposal of ACM and asbestos waste as well as all other ESMP measures have to be included in both the technical specifications and bill of quantities (BoQs).

Contractor shall develop site-specific ESMF where requirements to ACM and asbestos waste will be contained.

**Annex 8 – Form for submitting comments for ESMP**

<p><b>Form for submitting comments and suggestions for Environmental and Social Management Plan ESMP for the project</b></p> <p><b>Timisoara Burn Canter , in Municipality of Timisoara</b></p> <p>(Interconnection of existing buildings and new construction inside the Emergency County Clinical Hospital "Pius Brânzeu" Timisoara in order to reorganize the medical circuits for the departments: UPU- Emergency , Surgery, ATI - Anesthesia &amp; Intensive Care and Burn Center)</p> <p><b>Main description of the project</b></p> <p>The new buiding in the Emergency County Clinical Hospital "Pius Brânzeu" Timisoara will have a foot print of 3,625 sqm, a 5F height regime and it increase the capacity of the hospital with:</p> <ul style="list-style-type: none"> <li>✓ Emergency - UPU-SMURD (58 positions);</li> <li>✓ A Burn Center (6 boxes for large burns, 6 reserves for intermediate and post-critical burns and 5 beds for microsurgery and reconstructive surgery);</li> <li>✓ An ATI section (27 positions);</li> <li>✓ Operation's Block (25 operating rooms);</li> <li>✓ Related spaces (sterilization, pharmacy, administrative and logistical spaces, technical spaces, etc.);</li> <li>✓ Heliport.</li> </ul> <p><b>Electronic version of ESMP for the project "Timisoara Burn Canter", in Municipality of Timisoara is available on the following web pages:</b></p> <ul style="list-style-type: none"> <li>• Municipality of Timisoara : <a href="https://www.primariatm.ro">https://www.primariatm.ro</a></li> <li>• MoH PIU: <a href="http://www.ms.ro">http://www.ms.ro</a></li> </ul>	
<b>Name and surname of the person who provides comment*</b>	
<b>Contact information*</b>	<b>E-mail:</b> _____ <b>Phone:</b> _____
<b>Comment on the ESMP:</b>	
<b>Signature</b>	<b>Date</b>
_____	_____
<p><b>If you have any comments/suggestions or amendments to the proposed measures of Environmental and Social Management Plan ESMP for the project "Timisoara Burn Canter", in Municipality of Timisoara please submit it to the responsible persons from the following institution:</b></p> <p><b>Contact person: Eugenia Petrescu , PMU , Ministry of Health,</b>  <b>e-mail: <a href="mailto:Eugenia.petrescu@ms.ro">Eugenia.petrescu@ms.ro</a></b></p> <p><b>Within the 14 days period after the announcement of ESMP for the project "Timisoara Burn Canter", in Municipality of Timisoara (date of announcement: ..... )</b></p>	
<b>Referent number:</b> _____ (fulfilled by the responsible persons for the project implementation)	

\* Fulfillment of the fields with personal data is not obligatory

Annex 9

**Minutes of public consultation for**



## New building of Timisoara Burn Center

The public consultation has been done through online due to restrictions imposed by the COVID -19 crisis. The Form for submitting comments was published together with the approved ESMP Timisoara hospital's website - <https://www.hosptm.ro/> .



The screenshot shows the website of Spitalul Clinic Județean de Urgență „Pius Brînzeu” Timișoara. The main banner features the text "CORONA COVID-19" with buttons for "Documente, legislație" and "Informare pacienți". Below the banner, the title "Planul de Management Social și de Mediu - Timișoara pentru consultare publică" is displayed. The project description states: "Proiectul: Interconectarea clădirilor existente și construcție nouă în incinta Spitalului Clinic Județean de Urgență - Pius Brînzeu - Timișoara în vederea reorganizării circuitelor medicale pentru departamentele: UPU, Chirurgie, ATI și Centru de Mari Arși." It lists two documents: "Planul de Management Social și de Mediu pentru consultarea publică" and "Document pentru transmis comentarii și sugestii la Planul de Management Social și de Mediu PMSM." At the bottom, there is a link for "Invitație de participare privind achiziție - Medicamente". On the right side, there are sections for "Apel de urgență" (112 RO) and "Programări telefonice Ambulator" (Tel. 0752297252 și 0748331296, L-V între orele 07.30-19.30).

The comments received related to :

- strong desire of localas to a faster start of Works as the Specialised unit is very much needed
- worries about the traffic inside the medical center during the construction of the new unit
- worries about potential increase of dust due to the proposed Works

The comments were sent both indicating name and contact details as well as anonymous. In case that identification details were given , the PMU Environmental expert together with Cosntruction Project manager have answered and clarified that all measures will be taken in order to mitigate potential adverse effects on the construction period.

The issues raised were answered and do not need any modification of the final draft ESMP approved before the public consultation.

## Photo Gallery

Lateral view of the new building

