EPC CONTRACT

CONTRACT SPECIFICATIONS

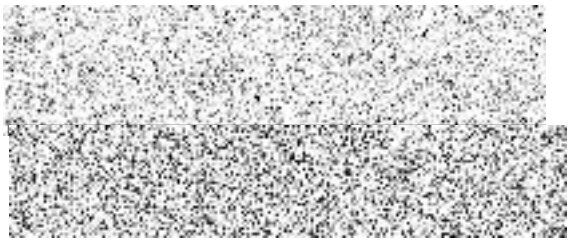
DOCUMENT NAME:	**CONSTRUCTION AND COMMISSIONING DOCUMENT**
VERSION DATE:	**March 2025**

SIGNATURE PAGE

IN WITNESS WHEREOF the Owner* and the Supplier* have hereby signed this part of the EPC Contract*.

For and on behalf of the **OWNER**, **Elektrárna Dukovany II, a. s.**

Signature 
Name
Title

Signature 
Name
Title

For and on behalf of the **SUPPLIER, Korea Hydro & Nuclear Power Co., Ltd.**

Signature 
Name
Title

Signature 
Name
Title

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1 INTRODUCTION

A

This Construction and Commissioning Document* defines the requirements related to the construction (see Chapter 2 of this Construction and Commissioning Document*) and Commissioning* of the Plant* (see Chapter 3 of this Construction and Commissioning Document*).

B

This document further specifies requirements set up in the Terms and Conditions*, in particular, but not limited to, those defined in the Chapters 14 and 15. This document is interrelated with other documents of the EPC Contract* and Nuclear Fuel Contract*, therefore it shall be read, construed and explained together with those related documents. For this purpose, this document contains references to other parts of the EPC Contract* or Nuclear Fuel Contract* containing, inter alia, specification of detailed requirements.

C

Requirements related to the Plant* constructability are defined in the Chapter 2.13 of the Technical Requirements Document*.

D

The Owner* has the following main goals in terms of construction and the Commissioning*:

- to minimize the construction and the Commissioning* costs and the environmental impact to the Site* vicinity and its inhabitants;
- to optimize the Project* time schedule;
- to achieve the quality level which is acceptable for licensing and for future Plant* operation;
- to ensure that the Plant* as constructed meets all design, operational, safety and licensing/permitting requirements;
- to meet requirements of the Rules* in areas of, but not limited to, nuclear safety, radiation protection, environmental protection, occupational health and safety, security, fire protection, emergency preparedness etc. applied to the Project*;
- to avoid any negative impacts on the operation of the Existing Nuclear Power Plant*.

The Supplier* shall perform the Works* under the EPC and the Nuclear Fuel Contract* in a manner to achieve these goals.

2 CONSTRUCTION

2.1 GENERAL PRINCIPLES

A

The Supplier* shall conduct all activities at the Construction Site* in compliance with the Terms and Conditions*, Section 28.7, Technical Requirements Document*, Volume 5 and Documents* specified in Section 2.3 of this Construction and Commissioning Document*.

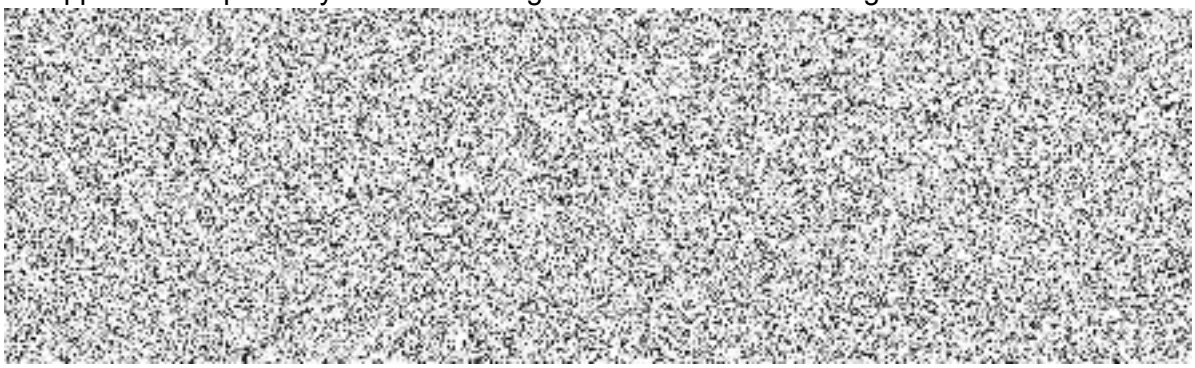
B

The Supplier* shall conduct all activities at the Construction Site* in compliance with the restrictions which the Existing Nuclear Power Plant* may impose and the Supplier* is responsible for and shall ensure that its activities shall not jeopardize the safety and operation of the Existing Nuclear Power Plant* as specified in the Terms and Conditions*, Section 28.7 and the Technical Requirements Document*, Volume 5. In this respect, any construction planning, security, emergency plans and use of existing infrastructure at the Site* shall be duly coordinated by the Supplier* with the Owner*. Any access to the Existing Nuclear Power Plant* shall be subject to access control and in compliance with access rules imposed by the Existing Nuclear Power Plant* operator.

C

The Supplier* shall take into account and respect safety, licensing and permitting requirements and the Rules* for the nuclear safety, radiation protection, security, emergency preparedness, fire protection, occupational health and safety and environmental protection, as well as the general working conditions and rules of the Site* area as well as the existing Site* layout specifications, some of which are specified in the Technical Requirements Document* and the Project Management Document*. The Supplier* shall take full responsibility for the adequacy, stability and safety of all Construction Site* operations, of all methods of construction and of all Works* irrespective of any approval or consent by the Owner's Representative*.

The Supplier* shall primarily consider during construction the following:



D

The Supplier* shall conduct all construction activities in accordance with best practices and proven construction techniques from the construction of the Reference Plant* or other nuclear power plant construction.

2.1.1 PROPER CONSTRUCTION QUALITY

A

The Supplier* shall comply with all quality requirements defined in the Licensing and Permitting, Safety and Quality Document* Chapter 3, in the Terms and Conditions*, Chapter 6, and with the requirements of Rules* and Technical Requirements Document*, Chapter 2.13 for all the Works* and activities during the construction.

2.1.2 CONSTRUCTION WORK MANAGEMENT

A

The Supplier* shall divide the entire Plant* into the specific areas to ensure among others the following main goals:

- The adequate manageability of the construction Works* respecting quality, cost and time schedule control requirements.
- The commencement of the construction Works* at the moment when specific area is completely designed and the related design Documents* required for construction Works* are approved for construction in accordance with the Supplier's* internal procedures.

2.1.3 PLANNING AND SCHEDULING

A

The Supplier* shall plan, monitor, and supervise the Works* using adequate, modern and effective planning and scheduling methods. These methods will be used to create an Construction time schedule.

AA

The requirements for the Construction time schedule are described in the Project Management Document*, Section 2.6.5 and this Construction and Commissioning Document*, Section 2.3.2.

B

The Supplier* shall inform the Owner* periodically and in detail about the progress of the construction Works* in the form of the Project* progress reports (monthly Project* progress report, weekly Site* Progress Report) and shall allow the Owner* to verify the content of each progress report in accordance with the Project Management Document* and the Project Organization and Management Manual* (see the Project Management Document*, Section 3.7).

2.1.4 MINIMISED CONSTRUCTION COMPLEXITY

A

Simple construction solutions shall be favoured, and complex construction solutions avoided by the Supplier*.

2.1.5 MODULARITY

A

Beneficial modularity shall be applied for all constructions at the Site* as far as possible in order to achieve main goals mentioned in this Construction and Commissioning Document*, Chapter 1.

B

The Supplier* shall apply standardized construction modules and prefabricated elements to the maximum extent considering local conditions, capabilities of local companies, possibilities of fabrication off the Site* or on the Site*, transport routes and storage capabilities at the Site* (for detailed requirements see the Technical Requirements Document*, Section 2.13.2.5).

C

The Supplier* shall assign a senior construction personnel possibly position of Deputy Project Manager to oversee and control all the Off Site* assembly shop or yard activity and will ensure

the Subcontractors* and fabricators are working to the construction sequence and priorities set by the Supplier*. They will not only control the deliverables but also ensure the assemblies are built safely and to the Quality standards and requirement.

2.1.6 USE OF LOCAL CONSTRUCTION MARKETS

A

The Supplier* shall take into account in the construction planning the use of local construction companies, local material and equipment manufacturers, existing prefabrication workshops, etc. for the Supplier's Scope of Supply* in order to achieve main goals mentioned in this Construction and Commissioning Document*, Chapter 1.

2.1.7 CONSTRUCTABILITY REVIEW

A

The Supplier* shall provide a detail plan for implementation of the Constructability plan on the project as it is a key ingredient of successful project execution is an early implemented proactive program. Early project planning and throughout execution integrated planning shall be performed with various stakeholders including designers/engineering, procurement, logistics, materials management, that have experience and understanding of how the project to be sequenced, planned, executed and constructed. The Supplier* shall consider how the Constructability review will:

- promote more efficient sequential work planning;
- helps mitigate safety risk;
- increases productivity;
- facilitates quality design;
- increase profit;
- supports the vision.

The implementation of the Constructability and tracking the progress shall be driven by set procedure and logs.

2.2 INTENTIONALLY LEFT BLANK

N/A

2.3 CONSTRUCTION AND ERECTION DOCUMENTATION

A

Prior the construction Works* commencement, the Supplier* shall provide the Documents* required for the construction Works* management and execution in accordance with the Rules* specified in the Technical Requirements Document*, Chapter 2.5 and general requirements set down in the Project Management Document* and the Terms and Conditions*, Section 28.7.

B

The Supplier's Scope of Supply* shall include, but shall not be limited to, the Documents* described in the following Sections 2.3.1 to 2.3.11.

2.3.1 PROJECT CONSTRUCTION ORGANIZATION CHART

A

The Supplier* shall establish and describe his organization for the construction work management and include it, together with the corresponding Project Construction Organization Chart in the Project Organization and Management Manual*, with a clear definition of the

hierarchical and communication lines and with clear identification of the Supplier's* key positions. The Supplier* shall define the participation of the Owner's* personnel and needed links to the Owner's* organization corresponding to the Owner's Scope of Supply* specified in the Scope of Supply Document*, Chapter 3 (see the Project Management Document*, Section 3.6).

2.3.2 CONSTRUCTION TIME SCHEDULE

A

The Supplier* shall prepare the Construction time schedule in accordance with the Project Management Document*, Sections 2.6.5 and 2.6.8.3.

B

The Construction time schedule shall include the basic sequences of the main construction and erection deadlines, taking into consideration the requirements of the EPC Contract* and specifically those related to safety, permitting and licensing provisions (for more details see Section 2.6.1.2 of this Construction and Commissioning Document*).

C

In order to inform the Owner* about progress of the construction Works*, the Supplier* shall periodically update the Construction time schedule in accordance with requirements of the Project Management Document*, Section 2.6.9.

2.3.3 IMPLEMENTATION PLAN

A

The Supplier* shall carry out a detailed study of the implementation of the buildings, equipment and structures comprising the Plant* and the On-Site Facilities* - Implementation Plan (more details are described in Section 2.6.1.1 of this Construction and Commissioning Document*). The Supplier* shall submit Implementation Plan to the Owner* for approval no later than six months before the Site Handover*.

2.3.4 CONSTRUCTION PROCEDURE MANUAL AND CONSTRUCTION SITE RULES

A

The Site* work requirements (such as capacities, workload, activity organization and planning) shall be proposed and documented by the Supplier* in Construction procedure manual document (see also the Project Management Document*, Section 3.21). The Supplier* shall submit Construction procedure manual document to the Owner* for approval no later than six months before the Site Handover*.

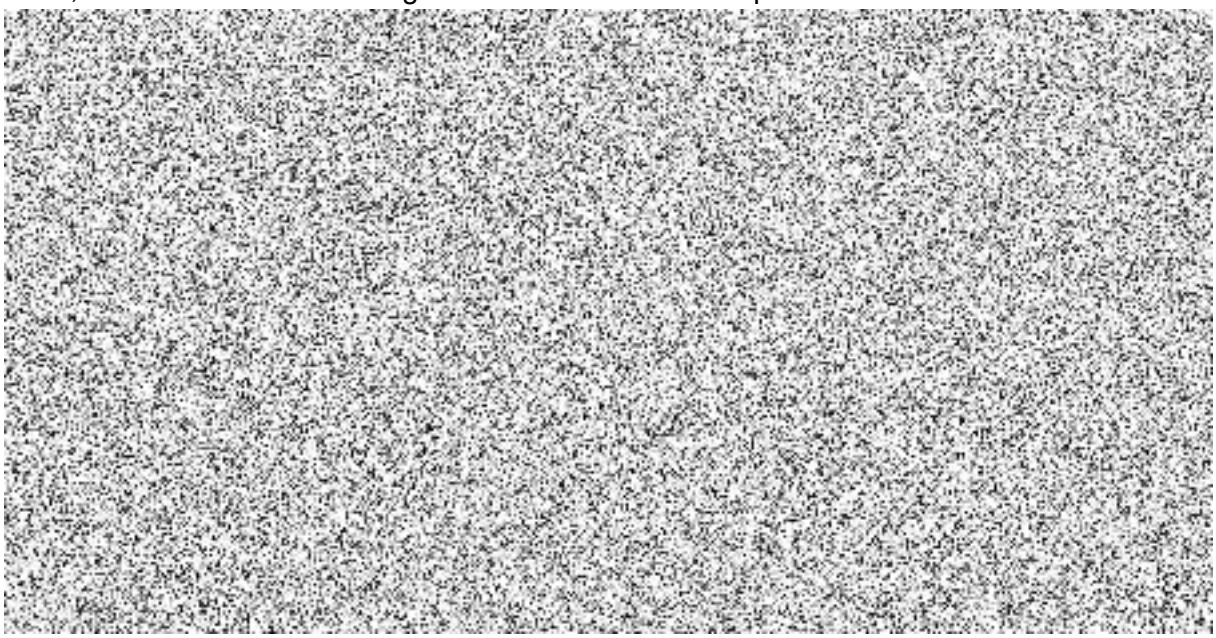
AA

The Construction procedure manual shall define the capacities, workload, and management structure for construction, to enable construction activities to be logically planned and safely executed in compliance with the Rules*.

AB

The purpose of the Construction procedure manual is to specify the organizational structure and responsibilities for the management and control of construction Works* and provide the basis for the planning and execution of the construction testing (see Section 2.8.2 of this Construction and Commissioning Document*), as a coordinated activity between the Owner* and the Supplier*.

AC
The Construction procedure manual, referring, as appropriate, to the Project* management system, shall include the following items of the construction process:



AD
The Construction procedure manual shall describe how are construction activities controlled by the written administrative procedures and shall ensure that all procedures are reviewed and approved before issue, and that their subsequent amendment is controlled.

B
The Site* work requirements (such safety rules and regulations, occupational health and safety) shall be proposed and documented by the Supplier* in the Construction Site Rules* document (see the Licensing and Permitting, Safety and Quality Document*, Section 2.1).

2.3.5 CONSTRUCTION METHOD STATEMENTS

A
The Supplier* shall provide Construction Method Statements that clearly details how the Works* are going to be performed and constructed (e.g. unloading of heavy equipment, possible dangers associated with the execution of work, order, and method of construction etc.). For details see Section 2.6.1.3 of this Construction and Commissioning Document*.

2.3.6 TECHNICAL CONDITIONS AND WORKS SPECIFICATIONS

A
The Supplier* shall prepare technical conditions and the construction Works* specifications for the execution of the construction Works* in accordance with the Rules* and best industry practice. The construction Works* specifications shall clearly detail how each element of the Works* are going to be performed and constructed.

B
The technical conditions and the construction Works* specifications shall specify requirements to all civil and installation works.

For details see Section 2.6.3 and 2.6.4 of this Construction and Commissioning Document* and the Project Management Document*, Attachment 3.

2.3.7 FACTORY ACCEPTANCE TESTS AND INSPECTION DOCUMENTATION

A

The Supplier* shall inform the Owner* in writing in advance of for any Factory inspection in order to give opportunity to witness the test in accordance with Terms and Conditions*, Section 6 and also shall keep up-to-date all records and reports of fabrication and the related Inspections* and tests in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 3.5 and the Project Management Document*, Attachment 3, Section 1.3.9.

B

For details see Section 2.8.1 of this Construction and Commissioning Document*.

2.3.8 CONSTRUCTION TESTS AND INSPECTION DOCUMENTATION

A

The Supplier* shall inform the Owner* in writing in advance of any Site* test and inspection in order to give opportunity to witness the test in accordance with Terms and Conditions*, Section 6 and also shall keep up-to-date records of all construction testing and the Inspections* in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 3.5 and the Project Management Document*, Attachment 3, Section 1.3.9.

B

For details see Section 2.8.2 of this Construction and Commissioning Document*.

2.3.9 DOCUMENTS TO COMMENCE WORK

A

The list of Documents* which shall be worked out and submitted by the Supplier* to the Owner* before the construction Works* can begin includes, but is not limited to, the Documents* listed in Section 2.5.4 of this Construction and Commissioning Document*.

2.3.10 DESIGN DOCUMENTATION

A

All the design, engineering and vendor documentation used for the construction Works* (Detail Design* documentation, SSC drawings, layout drawings, the construction Works* specifications, diagrams, descriptions, instruction for construction, etc. in all disciplines) shall be approved for use in construction, according to the Supplier's* internal procedures, which shall be approved by the Owner*.

B

The Supplier* shall establish necessary processes and procedures for engineering field verification of the design Documents* with as-built status of SSC and for integration of all design modifications resulted from construction according to the Terms and Conditions*, Section 4.5 and the Technical Requirements Document*, Chapter 2.12.

BA

The Supplier* shall keep the up to date as-built design Documents* and shall make them available to the Owner* and/or the Authorities* at the Construction Site*.

BB

The Owner* shall have right to permanently monitor and survey the Supplier's* process of engineering field verification of as-built status of SSC and preparation of as-built versions of the all Documents* which shall reflect all modifications, including, but not limited to, the modifications made during construction and Commissioning* according to the Terms and Conditions*, Section 4.5 and the Rules*.

Without undue delay after making any as-built Document* available to the Owner* (or modifying any as-built Document* previously made available to the Owner*) in accordance with paragraph BA, the Supplier* shall submit an invitation to the Owner* for field verification of the correctness and completeness of the as-built Document*.

Engineering field verification procedures shall in no case replace the change management process.

2.3.11 LOG BOOKS

A

The Supplier* shall keep the log books in accordance with the Building Act*. Log books are required to be kept in Czech language. The Supplier* is responsible for and shall ensure that the Owner* shall have at any time access to the log books. The Owner* shall be entitled to enter records into the log books (see also Section 28.7 of the Terms and Conditions*).

AA

At least six months prior to the Site handover*, the Supplier* shall provide the Owner* for its approval with a final version of the log book system of the Supplier* and its Subcontractors* based on the version of the log book system provided by the Supplier* in the Bid*.

2.4 INSTALLATION ASPECTS AND CONSTRUCTION SOLUTIONS

2.4.1 SEPARATION OF CIVIL WORKS FROM INSTALLATION WORKS

A

As a general principle the civil works inside the Plant* areas shall be substantially finished before the installation works start.

AA

The sequence of the Works* performed at the Construction Site* respecting this general principle shall be proposed by the Supplier* in Implementation Plan, Construction Procedure Manual and Construction Method Statements Documents (see Sections 2.3.3, 2.3.4 and 2.3.5 of this Construction and Commissioning Document*) to the Owner* and shall require the Owner's* prior approval. The approval by the Owner* of the sequence shall not relieve the Supplier* of its obligations under the EPC Contract* and ensuring required conditions for the installation works.

B

The Supplier* shall ensure separation of the "installation zones" (rooms ready for installation of technological equipment and systems) from the civil works and shall establish measures for performing housekeeping, cleaning, preservation and control of environmental conditions and workers access. The Supplier* shall clearly mark "installation zones" and establish procedures to regulate usage and maintenance of the "installation zones".

C

The Supplier* shall implement a "clean zones" assembly regime in the premises where equipment with the requirements to ensure the highest degree of cleanliness is located (e.g. the primary circuit, Reactor Coolant System*, supply systems from which the working substance is fed to the primary circuit and the equipment coming into contact with fresh fuel, equipment for which post-assembly cleaning operations cannot be performed to ensure the required degree of cleanliness).

CA
The Supplier* shall describe the required degree of surface cleanliness of components and equipment in the design documentation.

CB
The Supplier* shall state in the relevant documentation the rules for performing Works* in such individual degrees of cleanliness.

CC
The Supplier* shall ensure separation of clean assembly areas “clean zones” from other areas with the provision of controlled entrances to the “clean zones” (records of persons and transported tools and materials shall be taken). The Supplier* shall set the rules and measures for entering and working in the “clean zone”. ID cards for the entrance to the “clean zone” shall be registered by the Supplier* and shall be issued for requisite and trained person for the time necessary to perform the Works* in the “clean zone”. The Supplier* shall control access to the “clean zones”.

D
The Supplier* shall prepare and provide the Owner* with documentation relating to the “installation zones” and "clean zones" management. The Supplier* shall ensure inspections that Works* are performed in compliance with the “installation zones” and “clean zones” regime and shall take corrective action in the event of a breach.

2.4.2 INSTALLATION OF HEAVY AND / OR LARGE COMPONENTS

The Supplier* shall ensure that:

A
Appropriate carry-in analysis such as unloading, manipulation, on-site transport etc., and installation provisions shall be arranged for the heavy or large components that may be critical to the Plant* construction.

B
Full size installation opening(s) shall be provided for those heavy components that may be critical to the Plant* Construction time schedule.

C
The efficient and optimized use of large capacity cranes for the installation of modules, heavy and/or large components shall be considered and demonstrated.

D
For each component, especially the heavy components like SG, that may be replaced during plant lifetime, in one or more pieces, installation and dismantling methods shall be provided to the Owner* as part of the Documents* for operation and maintenance and proved, to the maximum extent possible, during construction.

2.4.3 EMBEDMENTS, PENETRATIONS AND FIXING PLATES

The Supplier* shall ensure that:

A
The number of components which need to be embedded into the concrete shall be minimized. Notably pipes and ducts embedded into the concrete shall be avoided. If such features are

adopted, the corresponding In-Service Inspection* provisions shall be addressed and the appropriate Documents* shall be provided to the Owner*. If the use of imbedded elements cannot be avoided, only the highest quality and certified products must be used.

B
In principle the anchor bolts and fixing plates shall be set in place before the concrete is poured. Fixing plates shall be designed to be sufficiently resistant against tearing.

C
Penetrations (defined when the concrete is poured) may be provided by form work but also diamond drilling may be used to make penetration holes afterwards.

D
If drilled holes are foreseen, sufficient rebars and the configuration of the rebars shall be planned for, so that the impact of the damage would be minimal.

E
The use of wedge bolt fasteners shall be minimized.

2.4.4 MATERIAL LOGISTICS

A
The Supplier* shall verify the suitability of existing roads including their capability for heavy transport loads and shall be responsible for the design, construction and maintenance of internal transport routes on the Construction Site* and their connections to existing access roads, both temporary during the construction phase and permanent (which shall be suitable for the activities planned during the Plant* operation), necessary up to the handover of the areas back to the Owner*.

B
The Supplier* shall ensure that:

BA
Transport routes shall be provided throughout the Construction Site* and up to the buildings in order to improve material logistics, especially during the construction and installation periods.
More details are described in the Technical Requirements Document*, Chapter 2.13.

BB
Sufficient space shall be left around the buildings to temporarily place some heavy and large components before their placement, as well as for needed civil works and equipment (cranes, concrete pumps etc.).
More details are described in the Technical Requirements Document*, Chapter 2.13.

BC
The use of the construction machinery shall be optimized, notably the location, number, and capacity of the cranes. The location of the concrete plant, prefabrication shops and warehouses shall be taken into account.
More details are described in the Technical Requirements Document*, Chapter 2.13.

2.4.5 CONSTRUCTION SOLUTIONS

A

The Supplier* shall consider local conditions for selection of formwork, slip form casting operation, using modules and factory-made structures, wall elements, columns, reinforcements, etc. in order to optimize cost and Construction time schedule.

2.5 ORGANIZATION AND SITE CONDITIONS

2.5.1 OWNERS ORGANIZATION AND SITE PERSONNEL

A

The Owner's* surveillance team personnel shall have unlimited access to any part of the Construction Site* at all times, with no prior notice or attendance of the Supplier's* representative being required.

B

The Owner's* surveillance team personnel shall have right to monitor the progress of the Works* on the Construction Site* or within the Site* vicinity and survey all the construction, erection and any other activities of the Supplier*.

C

The Supplier* is responsible for and shall ensure that the Owner* surveillance team personnel shall have at any time access to the all Documents* used for the construction Works*.

D

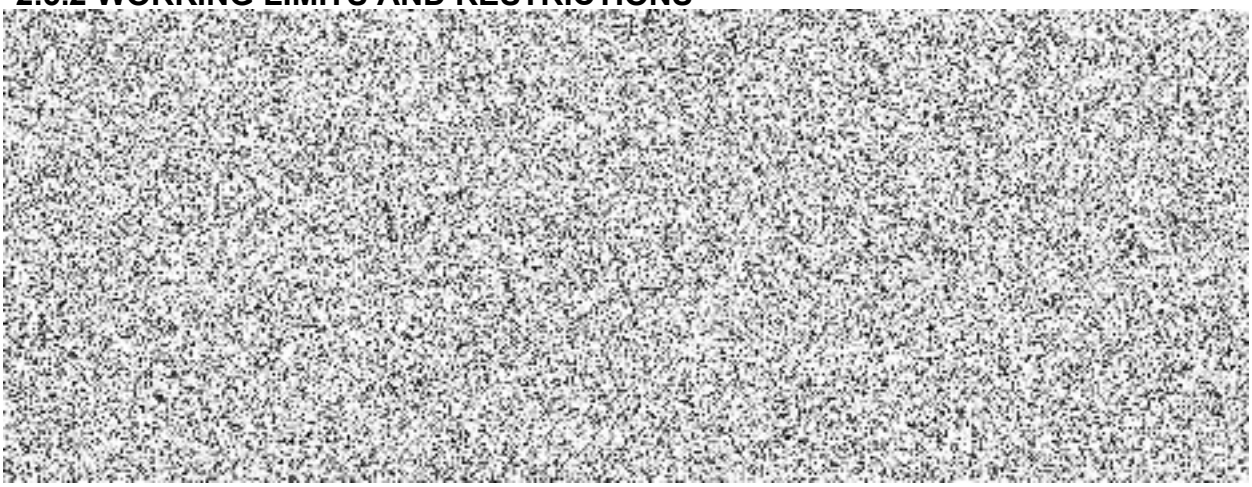
The Supplier* is responsible and shall without undue delay notify the Owner's* surveillance team using adequate communications means agreed with the Owner* about the actual status of construction and testing works commencement in case of deviation from scheduled works.

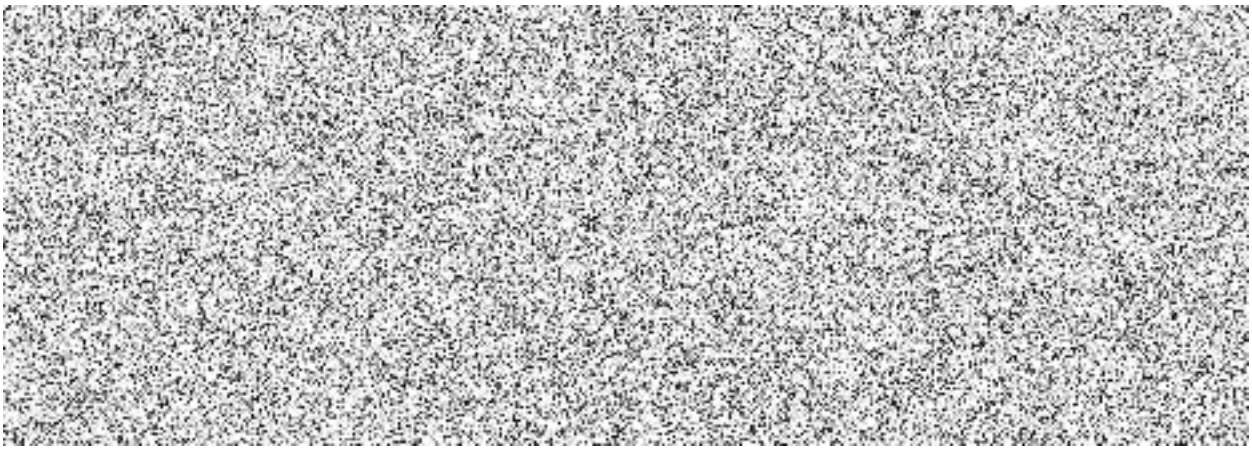
E

The detail description of the Owner's* surveillance team personnel rights and obligations shall be described in the Project Organization and Management Manual* and reflected in Construction procedure manual, the Construction Site Rules* and the other related Documents*.

More details are described in the Project Management Document*, Section 3.21.

2.5.2 WORKING LIMITS AND RESTRICTIONS





2.5.3 PERSONNEL ACCOMMODATION AND TRANSPORT

A

The Supplier* shall arrange accommodation for its personnel and for its Subcontractors* personnel.

AA

No camping or accommodation shall be allowed on the Site*.

B

The Supplier* shall provide transport for all its personnel and for its Subcontractors* personnel to and from the Site*.

2.5.4 SITE HANDOVER AND DOCUMENTS TO COMMENCE WORK

A

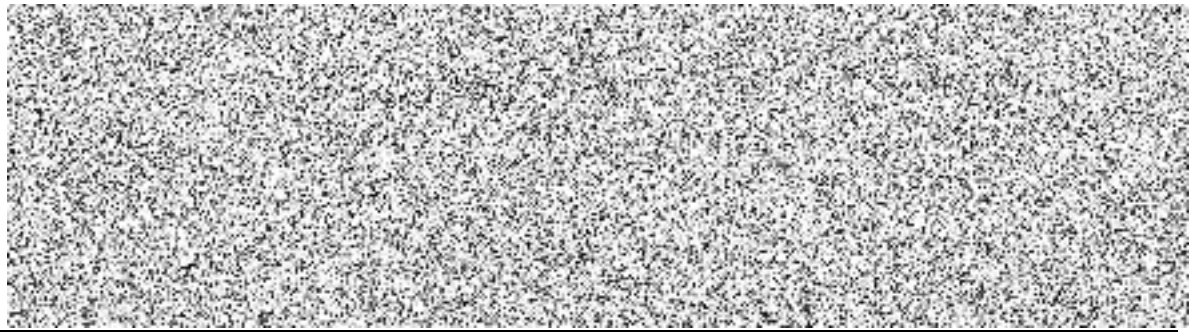
The Owner* shall handover the Construction Site* to the Supplier* via the protocol and in accordance with the Contractual Time Schedule*. The Supplier* shall commence its Site* activities in accordance with the Contractual Time Schedule* and shall coordinate and control all Works* performed on the Construction Site* since handover from the Owner*.

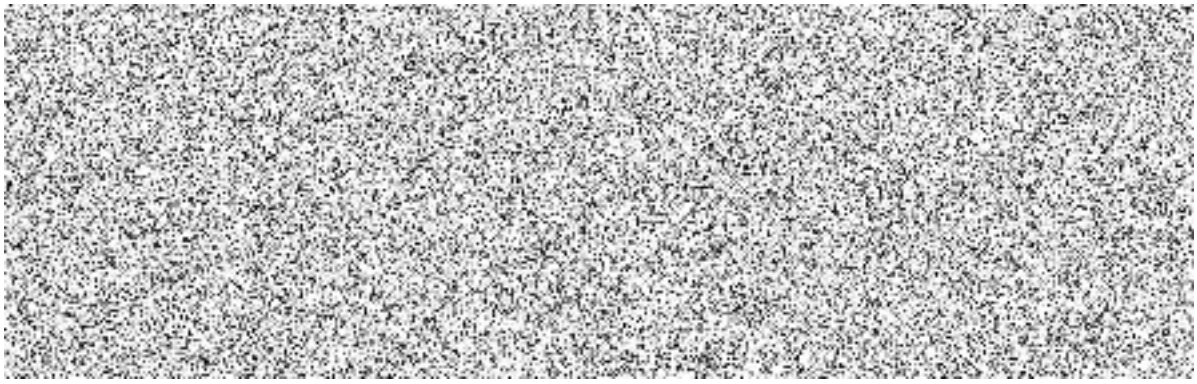
AA

The Supplier* shall be responsible for preparation of the Construction Site*, as specified in Section 2.3.7.3 of the Scope of Supply Document*. The Supplier* shall be responsible for the modification (levelling, compaction, etc.) of the Construction Site* individual area´s according to the method of the use and the technologies performed on these areas. Modification shall be adequate for the activities to be carried out on these areas.

B

As minimum (but not limited to) the Supplier* shall prepare and provide to the Owner* following Documents* before start of the construction Works*:





BA
The Supplier* shall ensure that all its personnel and all Subcontractors* personnel performing the Works* at the Construction Site* are familiar with the above Documents*, as applicable.

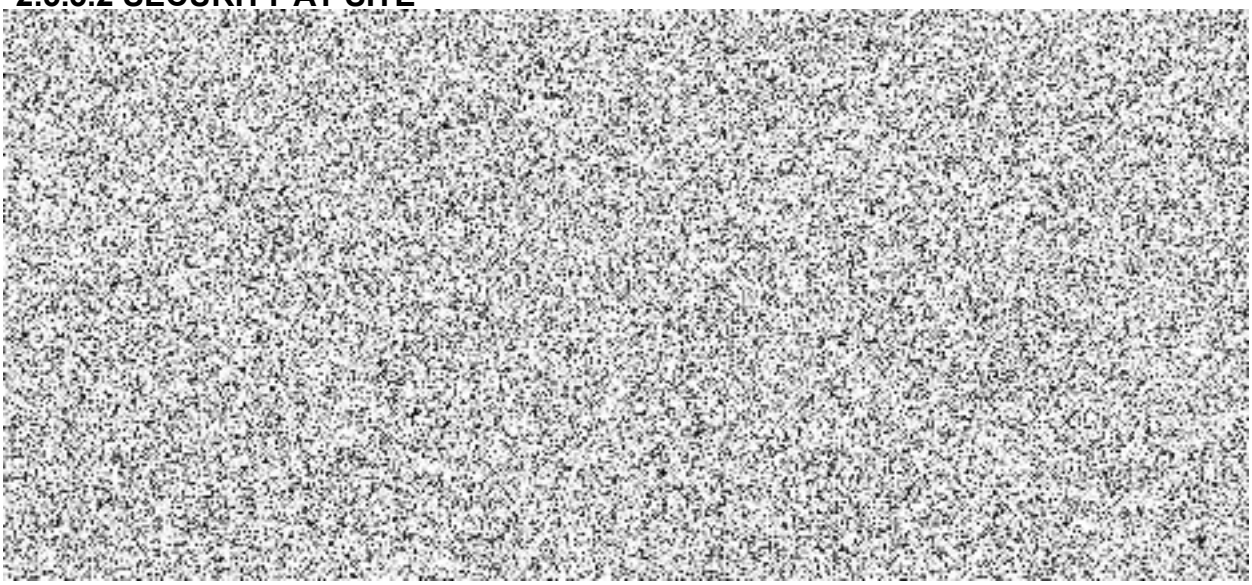
2.5.5 SITE SAFETY RULES

2.5.5.1 OCCUPATIONAL HEALTH AND SAFETY

A
The Supplier* shall be responsible for and shall ensure Occupational Health and Safety at the Construction Site* since the Site Handover* in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 2.2 and the Rules* specified in the Technical Requirements Document*, Chapter 2.5.

B
The construction Works* shall not commence at the Site* until the Occupational Health and Safety Plan is complete in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 2.2.

2.5.5.2 SECURITY AT SITE



2.5.5.3 EMERGENCY PREPAREDNESS

2.5.5.4 FIRE RISK AND FIRE PROTECTION SERVICES

2.5.5.5 ENVIRONMENTAL MANAGEMENT SYSTEM

A

The Supplier* shall maintain all the Site* facilities and working areas in order and shall keep them clean using dedicated resources and personnel.

B

The Supplier* shall adequately control, classify, store and remove all wastes generated on the Site*.

BA

The Supplier* shall minimize generation of waste from the very beginning of the construction by selection of suitable technological processes and demolitions/dismantling of temporary civil structures and equipment.

BB

Any activities carried out by the Supplier* at the Construction Site* shall be performed in compliance with the Rules* specified in the Technical Requirements Document*, Chapter 2.5. Supplier* shall recycle generated waste from demolition of existing civil engineering structures and technological systems from the Construction Site* in accordance with Decree No. 541/2020 Coll., as amended and regional waste management plan (see the Technical Requirements Document*, Chapters 2.5 and 5.2) and the related Requirements of the Authorities*.

BC

During the construction Works* the Supplier* shall prefer using materials, which allow to be recycled later on.

BD

During construction and demolition works, the Supplier* shall be responsible for the strict separation of contaminated materials to prevent any kind of debasement of materials determined for recycling.

BE

Recycled building waste arising from construction Works* shall be in the maximum scope utilized at the Plant* construction (all applications shall comply with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5).

BF

The Supplier* is obliged to ensure the take-back of used product defined in accordance with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5, in particular the Act. No. 541/2020 Coll., as amended.

BG
The Supplier* is obliged to ensure the waste sorting and disposal.

BH
Hazardous waste shall be delivered to entity authorized for its disposal in a hazardous waste landfill.

C
Chemical, oily and other hazardous wastes which are a potential risk of accident shall be removed immediately.

D
Chemical, oily and other hazardous wastes shall not be discharged to drain systems, to surface or underground water courses, or into the environment.

E
The Supplier* shall develop Environmental waste management plan describing measurement regarding waste from the Construction Site* in accordance with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5 and Section 2.7 of the Licensing and Permitting, Safety and Quality Document*. The Environmental waste management plan shall be subject to the Owner's* approval.

F
The Supplier* shall allow the Owner's* person responsible for environmental supervision (or the person nominated by the Owner*) to inspect waste facility, wastewater and storm water drainage systems at the Construction Site* and storage and submit all information related to waste and wastewater management (see Section 2.7 of the Licensing and Permitting, Safety and Quality Document*).

G
The Supplier* is obligated to keep dustiness level within the limits defined in the Rules*. The Supplier* shall minimize the impact of dustiness on Existing Nuclear Power Plant* and Construction Site* surroundings.

H
Liquid waste (including sewage and wastewater) shall only be routed to suitable intermediate storage or drainage systems provided by the Supplier* and the final discharges shall comply with the requirements of the Rules*. It is required to divide water network into Storm water, Sewage Water and Wastewater drainage in compliance with the Technical Requirements Document*, Chapter 5.3.

I
The Supplier* shall propose provision to prevent inflow of insoluble and polluted materials (for example mud, soil and petroleum products etc.) from the Construction Site* in storm water drainage system. The conditions/specifications shall comply with the requirements of the Rules*.
The Supplier* shall ensure sampling and analysing of discharged storm water in intermediate storage. The Supplier* shall notify the Owner* about any identified inflow of insoluble and polluted materials into the drainage.

J
It is the Supplier's* responsibility to minimize wastewater and prevent water pollution. Machinery shall only be washed out at the washing facilities which shall be designed to capture and store wash water. Water, which is polluted or alkaline or acid shall not be discharged into the sewage or storm water system.

2.5.6 SITE FACILITIES AND SERVICES

2.5.6.1 SPACE NECESSARY FOR THE WORKS

A
The Supplier* shall define spaces necessary for its On-Site Facilities* during the construction period.

B
During the preparation of the On Site Facilities*, the Supplier* shall consider available areas and infrastructure as defined in the Technical Requirements Document*, Chapter 5.2 and Chapter 5.3.

BA
During the preparation of the On Site Facilities*, the Supplier* shall also consider that during the Construction Time* the Owner* may require earlier release of the On Site Facility Area* B3 (see Section 5.2.10.3 of the Technical Requirements Document*), in such case the Supplier* shall demolish and remove all temporary facilities at this area, provide the Technical Reclamation* and shall handover the On Site Facility Area* B3 to the Owner* no later than 23 months from the Owner's* written notice.

C
The Supplier* shall not restrict or in any other way limit access to estates which are not part of the On Site Facility Area* (see drawings in the Chapter 5.7 of the Technical Requirements Document*).

2.5.6.2 TEMPORARY FACILITIES

A
The Supplier* shall consider as part of temporary facilities the area it may need for the use of specific construction techniques such as the Site* pre assembly of large structures or the area required for handling and construction of equipment modules.

B
The Supplier* shall arrange within the On Site Facilities* office space for the Owner's* surveillance team and other representatives of the Owner*. The Supplier* shall also provide to the Owner* connection to services (such as potable water, electricity, and communication infrastructure) and parking areas. The Owner* shall indicate number of the Owner's* personnel to be located at the office space at the On Site Facilities* no later than 3 months following the receipt of the Supplier's* request. Provision of such office space and connection to services is included in the Contract Price* and shall not be invoiced separately.

C
The Supplier* shall construct all the On Site Facilities* it requires to carry out the construction Works*. Before starting to build any On Site Facilities* and before disassembling them or changing their location, the Supplier* shall elaborate the corresponding design Documents* and provide it to the Owner*.

D
The Supplier* shall construct and preserve all provisional roads and pavements necessary to carry out the Works* and to ensure evacuation from the Site* in case of emergency (see the Licensing and Permitting, Safety and Quality Document*, Section 2.3.

E
The Supplier* shall delimit and adequately signpost Site* storage areas. The surfaces shall be self-draining to prevent collection of rainwater, mud, dust, etc.

F
Before the Final Takeover* of the Plant*, the Supplier* shall remove all its On Site Facilities* (with the exception of those On Site Facilities* that the Owner* decides to retain in accordance with the Scope of Supply Document*, Section 2.2.2), leftover materials and wastes and perform additional activities described in Section 2.10 of this Construction and Commissioning Document*.

2.5.6.3 SITE CLEAN-UP

A
The Supplier* shall remove all waste and rubbish generated during performance of the Works* and transport them, correctly classified, to neighbouring waste disposal or landfill sites officially regulated by local government.

B
Adjacent roads and streets shall be kept clean and free of obstructions at all times (including dust, dirt, snow, etc. sweeping and cleaning), cleaning of vehicles when leaving the Site* shall be ensured by the Supplier*. Any demolition material shall be removed immediately, and after completing any part of the work the Supplier* shall maintain the Site* clean and in perfect condition for further work.

2.5.6.4 OTHER FACILITIES

A
The Supplier* shall install water supply systems, power supply systems, hot water supply systems for heating the facilities and communication systems in accordance with the battery limits defined in the Scope of Supply Document*, Chapter 4 and the Technical Requirements Document*, Chapter 5.3.

B
The Construction Site* temporary power supply shall comply with the conditions and standards established in the applicable Codes and Standards*. Design, installation and preservation of temporary power supply (e.g. transformer, power lines meters, lighting) and temporary power supply replacements (if necessary) during execution of the Works* shall be at the Supplier's* account.

C
The Supplier* shall adapt and maintain temporary facilities as long as necessary for performance of its Works*, after completion of the Works* the Supplier* shall disassemble them or, after agreement with the Owner* (see the Scope of Supply Document*, Section 2.2.2), convert them into permanent fixtures.

D
The Supplier* shall provide medical service, canteen, cloakrooms, and sanitary facilities for Supplier's* and Owner's* personnel and maintain them in clean conditions.

E
The Supplier* shall be responsible for providing general communication systems necessary for the performance of the Works*, (covering also exercise of the Owner's* rights and needs), such as the following:

- telephones between offices;
- intercommunication equipment for tests;
- wireless network;
- radios.

EA
The Supplier* shall also ensure the amplification of the mobile signal during the construction and Commissioning* period, as required for the Works*.

F
The Supplier* shall install all fire protection and extinguishing equipment and shall maintain it during the erection, testing and start-up period in accordance with requirements listed in Section 2.5 of the Licensing and Permitting, Safety and Quality Document*.

G
The Supplier* shall delimit and signpost a parking area with sufficient capacity within the Construction Site* boundary, outside the Construction Area* fencing and as close as possible to the Construction Site* access gates.

H
The Supplier* shall ensure the construction of a turntable for trucks so that a smooth unloading of materials and equipment is ensured. The Supplier* shall also ensure the truck weighing equipment at the entrances and exits of the Construction Site*.

I
Private vehicles and group transport shall not be permitted to circulate inside the Construction Area*. For details see Section 2.4.5 of the Licensing and Permitting, Safety and Quality Document*.

J
The Supplier* shall suitably signpost all buried pipes of linear works including the ones in the On Site Facility Area* to prevent vehicles and heavy machinery damaging them. The buried pipes shall be protected by concrete slabs at all places where vehicles and heavy machinery will pass them over.

2.6 CONSTRUCTION WORKS

2.6.1 CONSTRUCTION METHODOLOGY AND SEQUENCE

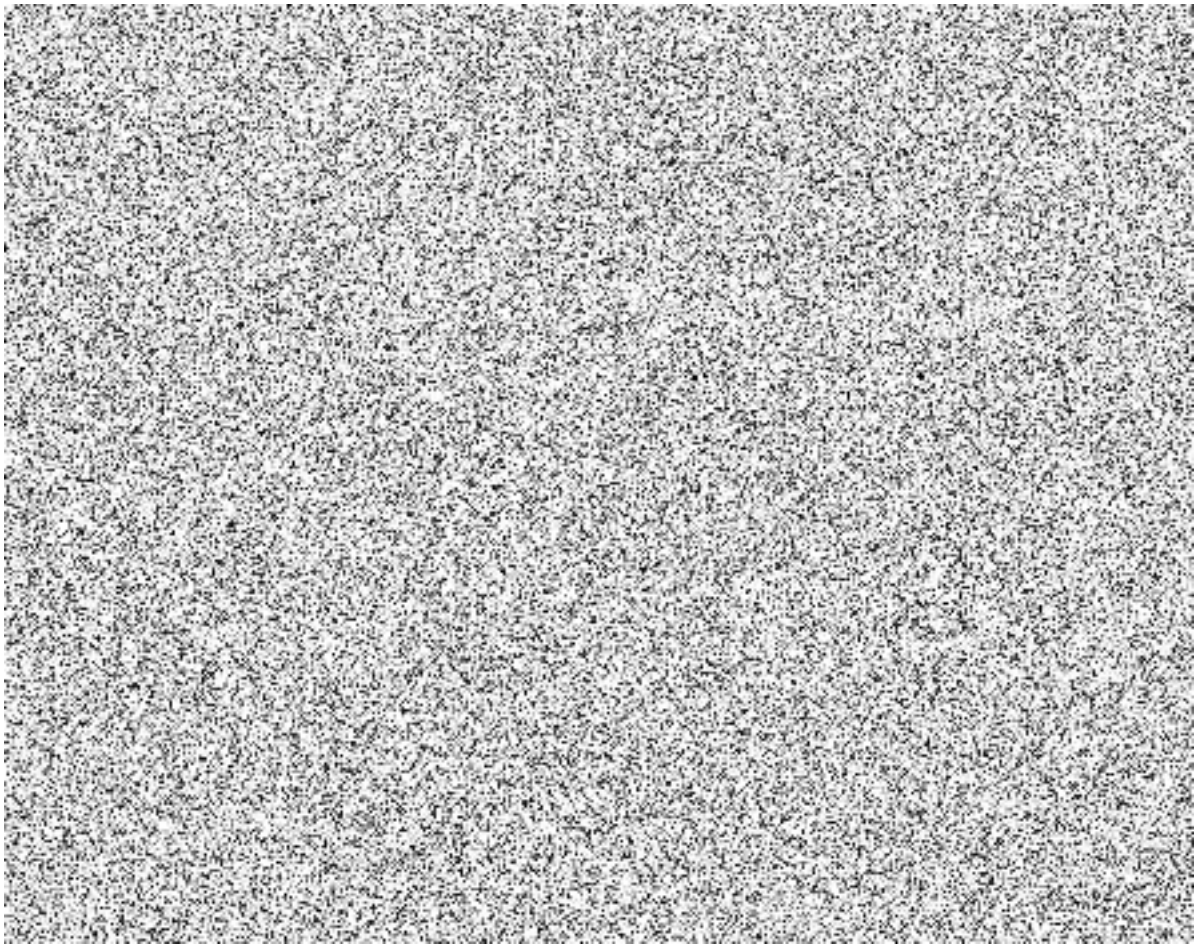
2.6.1.1 IMPLEMENTATION PLAN

A
The Supplier* shall carry out a detailed study of the implementation of the buildings, equipment and structures comprising the Plant* and the On Site Facilities* (Implementation Plan) which shall clearly present how the Plant* will be constructed and all construction Works* shall be organized and performed on the Site*. The Supplier* shall clearly detail the sequence and method statement for all major activities as well as installation practices for the bulk materials

including validations during execution of the Works*. Implementation Plan shall comply with the Documentation For Building Permit* and the associated Requirements of the Authorities*. It shall be revised accordingly to comply with issued Requirements of the Authorities* especially the Building Permit* as needed.

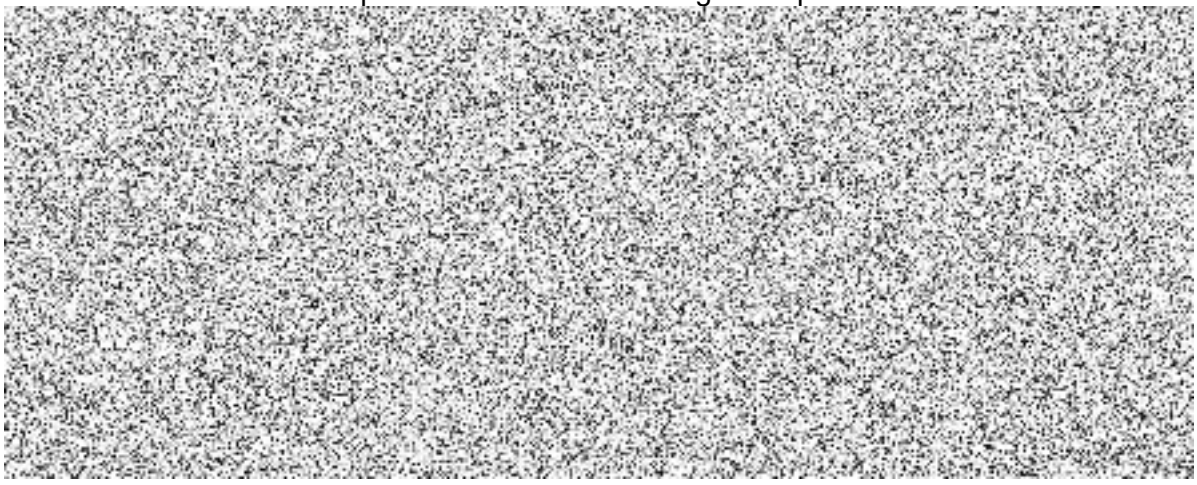
B

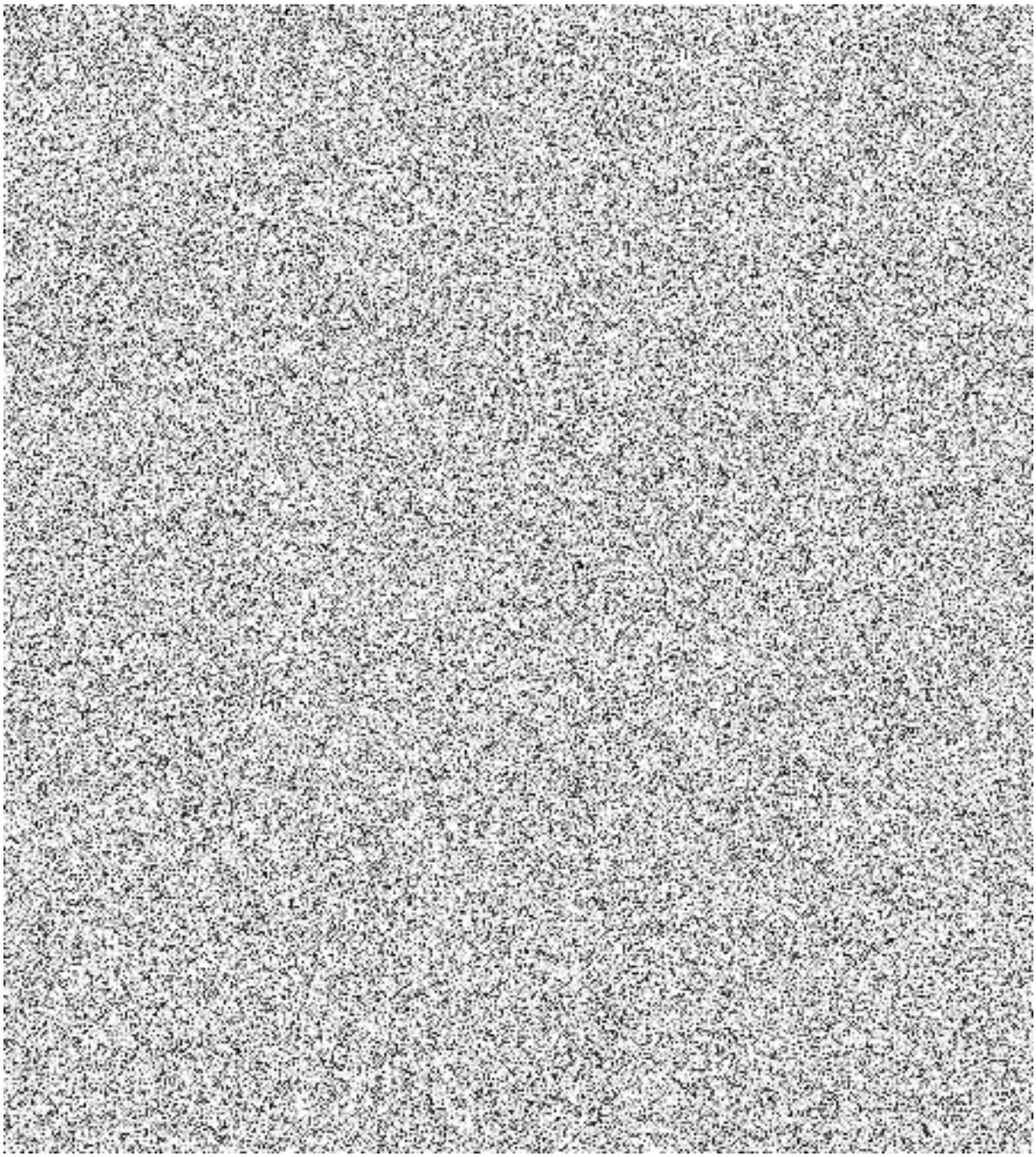
The study shall be carried out taking into consideration the following conditions:



C

Implementation Plan shall comprise as minimum following basic parts:





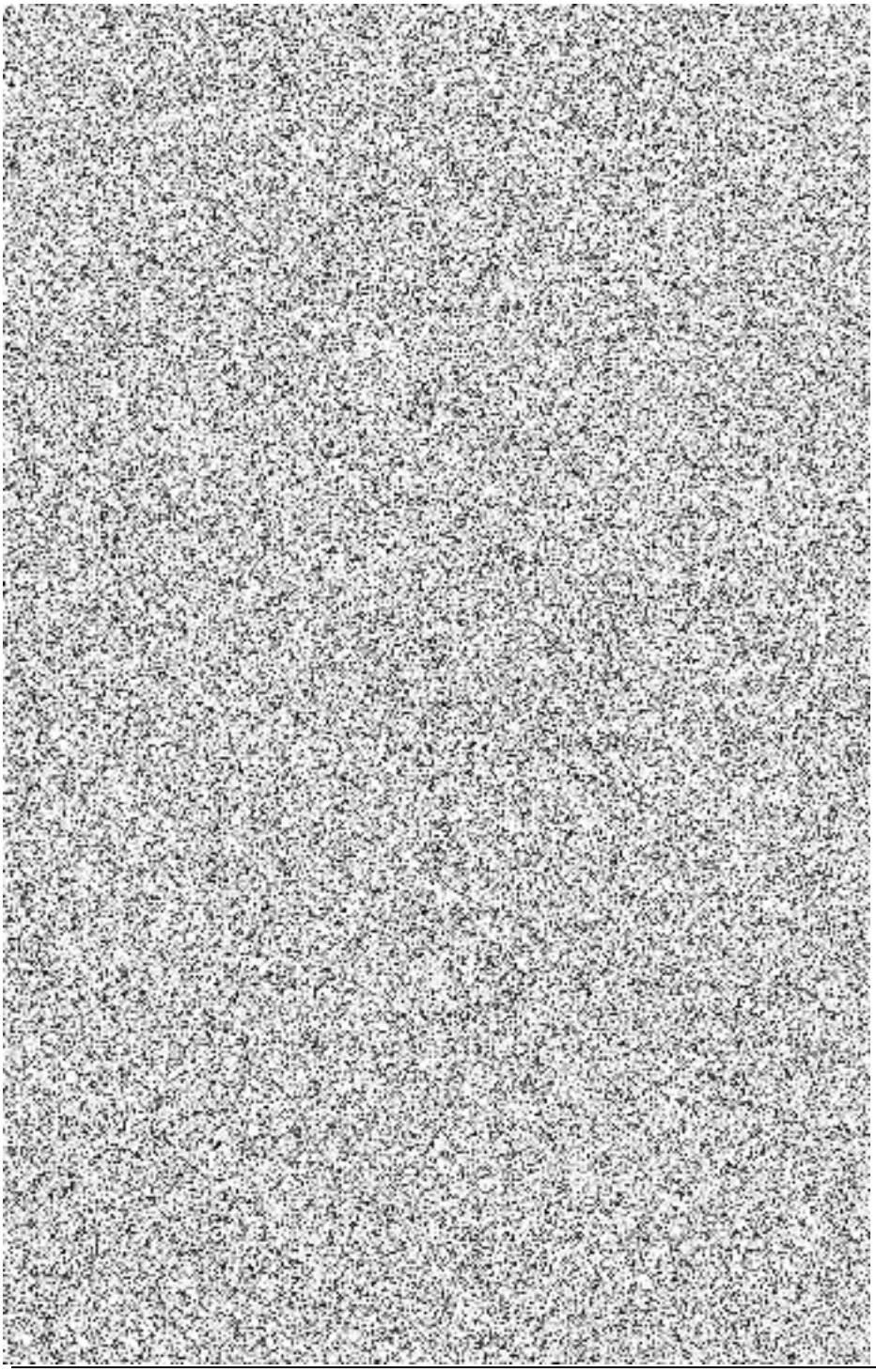
Implementation Plan shall clearly refer to information included in other construction Documents* described in Section 2.3 of this Construction and Commissioning Document* especially Construction procedure manual, Construction Method Statements, and the Construction Site Rules*.

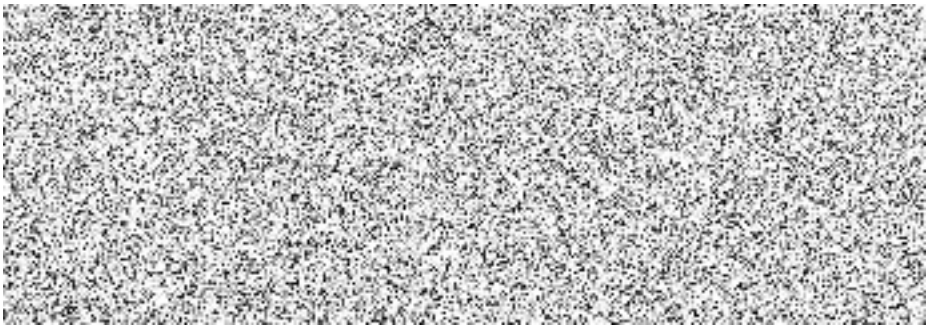
The Supplier* shall update Implementation Plan as needed based on the Works* progress and development.

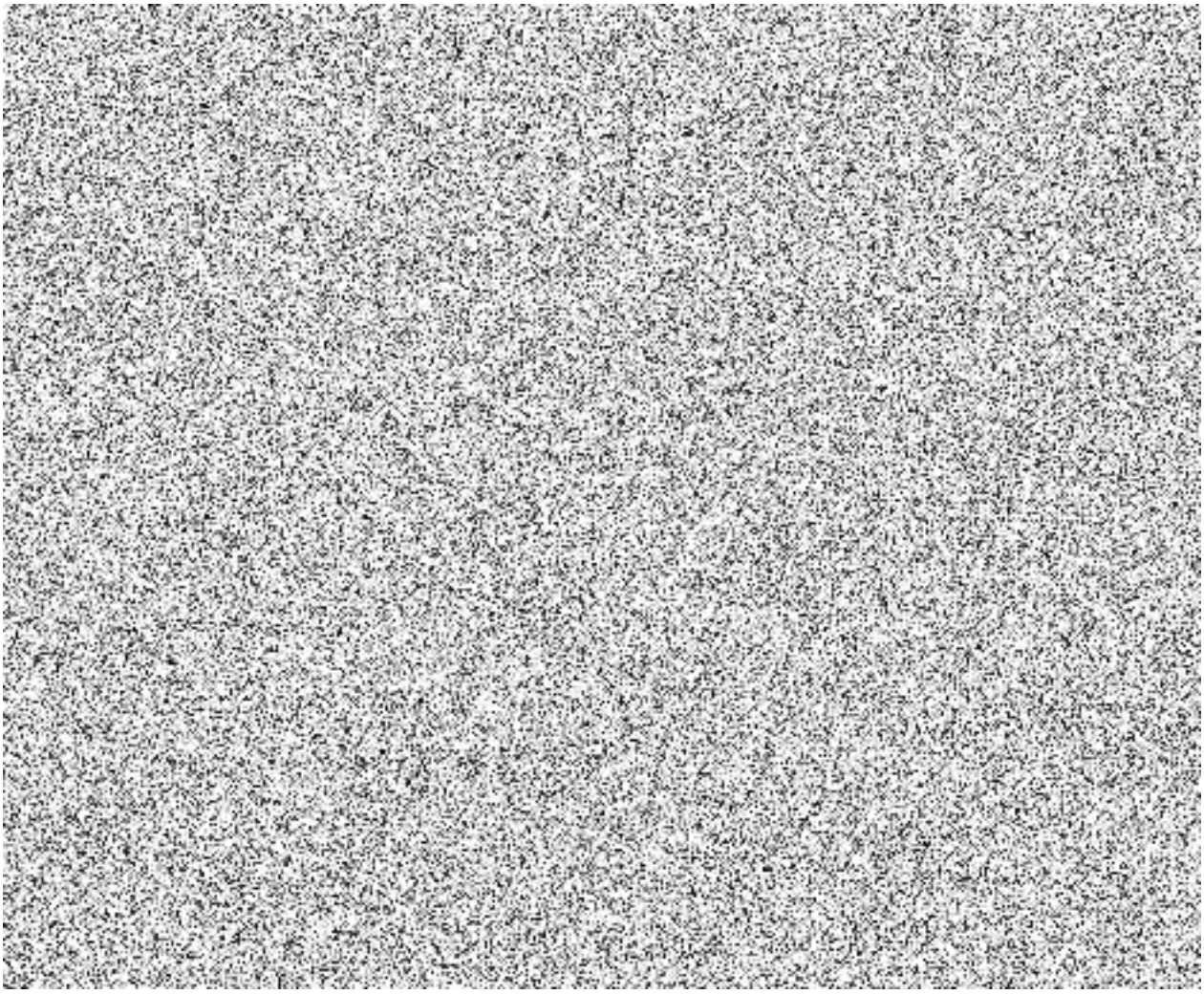
2.6.1.2 CONSTRUCTION TIME SCHEDULE

The Construction time schedule shall address the erection method by areas, taking into consideration the different volumes of work in each one as well as the different Subcontractors*

and the interfaces between them. The Construction time schedule shall contemplate and analyze the sequence in at least the following phases:







2.6.1.3 CONSTRUCTION TECHNIQUES

A

The Supplier* shall ensure compliance among the construction Works* specifications, design documentation, the Site* organization rules, the Site* safety rules, the quality Documents* and the Licensing and Permitting Documents* etc. Construction Method Statements shall cover purpose, scope, responsibilities, used equipment (including special tools), proposed construction methodology, etc.

AA

As a part of Construction Method Statements, the Supplier* shall describe the proposed erection sequence and construction methods and support them with drawings and diagrams

illustrating the movement of equipment, materials, and components on the Site* until they are in their final positions including methodology and technical condition for fabrication at the Site* and/or in workshops. The Supplier* shall submit procedures for material and equipment transportation.

AB
As a part of Construction Method Statements, the Supplier* shall describe implementation of advanced construction techniques such as modularization and pre-fabrication (more details are described in the Technical Requirements Document*, Section 2.13.2.5).

AC
As a part of Construction Method Statements, the Supplier* shall describe all equipment to be used at the Site*, including cranes, elevators, staircase towers, equipment of shop facilities and vehicles, including the size, capacity, assigned work and planned use of each item.

AD
As a part of Construction Method Statement, the Supplier* shall describe special measures to be used during the performance of construction Works* during the winter conditions.

B
The Supplier* shall minimize cases, when any parts of the crane and/or crane's loads extend into the space above the Existing Nuclear Power Plant*. Any such case shall be subject of the Owner's* consent (before the initiation of such crane activity), the Owner's* consent shall not be unreasonably withheld.

C
All special resources and equipment necessary for erection shall be on the Site* sufficiently in advance to guarantee correct execution of the activities according to the Construction time schedule (more details are described in the Project Management Document*, Section 2.6.8.3.)

D
Early in the design phase the Supplier* shall establish specific layout drawings for the cranes and the various lifting facilities on the Site*.

E
The Supplier* shall provide documentation and certificates for temporary used equipment (such as crane, elevators, staircase towers etc.). The Supplier* shall perform a risk analysis.

2.6.2 SITE CONSTRUCTION

2.6.2.1 GENERAL CONSIDERATIONS

A
The Supplier* shall comply with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5. For this purpose, the Supplier* shall prepare and issue, during the Subcontractors* Tendering Process, a set of Specific Conditions for the execution of the construction Works*, which shall be provided to the Owner* for information.

B
Prior the commencement of any construction works the Supplier* shall submit to the Owner* the relevant Quality plan applicable to respective activities in compliance with the Licensing and Permitting, Safety and Quality Document*, Section 3.2.

BA
The Supplier* shall prepare and provide the Owner* with the Quality plans in accordance with the Terms and Conditions*, Section 6.1.

C
At the time provided under Section 6.2 of the Terms and Conditions* the Supplier* shall provide the Owner* with Inspection and test plans. In case of hold points, the Supplier* shall not be entitled to continue with execution of the Works* which would cover or otherwise prevent verification of the Works* until the Owner* approves the Inspections* and tests results in writing.

D
The Supplier* shall notify the Owner* before any construction Works* be carried out which could make impossible subsequent Inspections* of already finished construction Works* due to their inaccessibility or uncheck ability so that Owner* can carry out Inspections* of such construction Works*. See also Section 2.6.3.4 of this Construction and Commissioning Document* (back filling layer placing, concrete pouring in the works).

E
The Supplier* shall establish a system to identify any nonconformity of construction materials, construction equipment and tools, SSC, Documents*, and activities in order to prevent their inadvertent use, installation or operation. Any nonconformity shall be segregated in clearly identified area using indelible marking, be traceable, and bear the reference number of the associated nonconformity report. (More details are described in the Licensing and Permitting, Safety and Quality Document*, Section 3.6).

F
The Supplier* shall be solely responsible for the work carried out and materials supplied, as well as for any faults or defects found. Any partial Inspections* carried out by the Owner* shall not relieve the Supplier* from its responsibility.

G
Therefore, any hidden faults, defects or delinquencies detected during or after construction shall be immediately repaired/replaced by the Supplier*.

H
The Owner* shall be notified at the time provided under Section 6.2 of the Terms and Conditions* of any Off Site* construction work to be carried out so that it can carry out prefabrication or the pre-erection Inspections*.

I
The Supplier* shall elaborate the final quality dossier consisting of quality records, reports and other documentation from construction Works* and provide it to the Owner* prior turnover of the associated SSC from construction to the Commissioning* as defined in the Section 2.9 of this Construction and Commissioning Document*.

This dossier shall also include the test results, certificates, and documents to be submitted to the Authorities* to obtain the relevant Permits* and Licenses* needed during the construction phases, and especially those related to nuclear safety.

J
The Supplier* shall maintain and make available at the Site* all quality reports, records and Documents* prepared by the Supplier* or its Subcontractor's* and the Owner* shall have at any time access to all Project* related quality records and reports (as described in the Licensing and Permitting, Safety and Quality Document*, Sections 3.4, 3.5 and 3.6 and the Project Management Document*, Section 2.13.3) created by the Supplier* or its Subcontractors*.

2.6.2.2 CIVIL AND INSTALLATION WORKS

A
The materials and construction techniques employed, and the execution of construction activities shall comply with the requirements established in the Technical Requirements Document*. For more details see Chapter 2.13 and Chapter 2.6 of the Technical Requirements Document*.

B
All specialized workers shall be suitably qualified and experienced and shall comply with the requirements of the Rules*. Special emphasis shall be placed on qualification of workers who perform the special processes (especially welding, soldering and non-destructive tests). These workers shall be suitably qualified and experienced and shall comply with the requirements of the Rules*. Their qualification shall be verified by appropriate working test before commencement of work. The working test shall be evaluated and documented by independent organization and the Owner* shall has right to attend the respective working test.

C
Non-destructive tests shall be carried out in accordance with the Rules*. In no case may the Supplier* refuse to carry out non-destructive tests required by the Owner* or the Authorities*.

CA
Non-destructive tests shall be carried out in such a way that they do not interfere with the other Works*. If necessary, these tests shall be performed out of normal working hours, paying attention at all times to the Occupational Health and Safety Plan.

CB
The Supplier* can also use other means of Non-destructive tests acceptable by Codes and Standards* and Rules* which does not require a wide range of barricaded or exclusion zone areas. Such method can be more stringent but can be performed with other activities in progress.

D
The Supplier* shall also keep in consideration for engaging third party for inspection and testing if the Owner* is not satisfied with in-house testing plan and methodology.

E
All the rigging equipment shall comply with the Rules* requirements.

2.6.2.3 COMPONENTS TESTS

A
All tests related with the Structures, Systems and Components* shall comply with the requirements of the Rules* specified in the Technical Requirements Document* Chapter 2.5.

B
In addition, tests of the safety classified Structures, Systems and Components* shall be performed in accordance with nuclear regulations and witnessed by the Owner* and, if required, by the Authorities*.

C
The Supplier* shall provide all facilities, the Consumables* and the resources and equipment necessary to conduct the tests.

D
After the tests have been performed, the Supplier* shall formally issue test reports (including acceptance criteria evaluation) to the Owner* for approval. The Supplier* shall give its support during presentation of the reports and related information to the Authorities*.

2.6.2.4 INTERRELATED SSC AND SUPPORT TO THE OWNER

A
The Supplier* shall, with the necessary Owner's* assistance, integrate and coordinate the Works* belonging to the Owner's Scope of Supply* to be executed at the Construction Site* into the Works*, including the Plant* and the On Site Facilities*.

B
The Supplier* shall review the Owner's* Construction and erection documentation for the Works* belonging to the Owner's Scope of Supply* and is responsible for and shall ensure that construction solution of the Owner's Scope of Supply* complies with and fits into the construction solution of the entire Plant* or of the On Site Facilities* as applicable (see Section 4.3 of the Terms and Conditions*).

C
The Supplier* shall temporarily hand over to the Owner* working places located at the Construction Site* needed for execution of the Owner's Scope of Supply* and for establishment of temporary facilities relating to execution of the Owner's Scope of Supply* (including connections to the Connection Points) – working places will be returned back to the Supplier* when activities within the Owner's Scope of Supply* are finished. The Supplier* shall ensure that such working places will be free of any obstacles and construction equipment or material preventing or impeding the Owner's* Works*.

CA
Layout and limits of working places and specific conditions for execution of the Works* belonging to the Owner's Scope of Supply* within the Construction Site* shall be determined and agreed by the Parties* in balanced manner based upon the applicable Detail Design* documentation and/or the applicable construction Documents*. In any way, limits of working places and specific conditions for execution of the Works* shall be determined in a way minimizing impacts into the Supplier's Scope of Supply* and the Owner's Scope of Supply*.

D
If needed, the Owner* shall provide to the Supplier* as-built status of the Documents* (or the excerpts) for the Works* executed within the Owner's Scope of Supply* after their execution and testing.

F
The Owner* shall follow the Construction Site Rules* (see Section 2.1 of the Licensing and Permitting, Safety and Quality Document*).

G
The Supplier* shall monitor progress of the work execution of the Owner*. The Supplier* shall provide connection to the Supplier's* available infrastructure and shall provide media (for instance water and electricity distribution) to the Owner* in order to use it for the Works* in the Owner's Scope of Supply* to be executed on the Construction Site* after the Site Handover*.

H
The Supplier* shall allow the Owner* to install needed temporary or permanent cables, pipes, within the Construction Site* area.

I
The Supplier* shall allow the Owner* to deploy excavated soil from execution of the Owner's Scope of Supply* (including connections to the Connection Points) at the soil deposits at the Construction Site*. The Supplier* shall treat such soil in accordance with requirements of the Section 2.6.3.2.7 of this Construction and Commissioning Document*.

J
The Supplier* shall coordinate activities of the Owner* or its Subcontractors* at the Construction Site* in accordance with Article 3.2.4 of the Terms and Conditions*. The Supplier* shall also take into consideration needed activities of the other SSC owners located at the Construction Site* (see Article 25.3.5 of the Terms and Conditions*).

K
The Supplier* shall protect any part of the Works* installed as a part of the Owner's Scope of Supply* within the Construction Site* and shall not remove or manipulate with such SSC without prior written consent of the Owner*.

2.6.3 CIVIL WORKS

2.6.3.1 GENERAL CONDITIONS

A
The civil Works*, including material and other construction related work, shall be performed, and comply with the requirements of the Rules*, the requirements in relation with quality (more details are described in the Licensing and Permitting, Safety and Quality Document*, Chapter 3), the Project* organization, reporting, deviations, etc. (as described in the Project Management Document*, Chapter 2).

2.6.3.2 CONDITIONS OF THE MATERIALS

2.6.3.2.1 GENERAL REQUIREMENTS OF THE MATERIALS

A
All materials for the civil works are in the Supplier's Scope of Supply* if not otherwise defined in the EPC Contract*.

B
For each material agreed with the Owner*, the Supplier* shall present the quality certificates or tests performed, samples, reports, and catalogues, showing the adequacy of the material supplied. Additionally, the Supplier* shall be responsible for maintaining the adequate

identification of the materials during construction. The Supplier* shall develop the corresponding procedures, including the Material Inspection and Receiving Report (more information is described in the Licensing and Permitting, Safety and Quality Document*, Section 3.5) to ensure control of the materials, their identification, origin and characteristics, tests performed and traceability throughout the construction process, as well as proper storage and handling in accordance with relevant accompanying technical documentation.

C
The Owner* shall reject those materials that do not reach the quality conditions, or alternatively, may request additional tests and samples of the materials to be used on the Site*. If the tests show that the material does not meet the required parameters, new material shall be delivered and tested.

D
The Supplier* shall use only materials that are in compliance with material specifications for the Plant* (see the Technical Requirements Document*, Chapter 2.6). On the Owner's* request, the Supplier* shall submit the proof that used material is in compliance with the material specification for the Plant*.

2.6.3.2.2 BACKFILLING AND LEVELLING

A
The Supplier* shall select the appropriate locations for the extraction of stone, aggregates and other materials for backfilling and levelling.

B
The Supplier* shall eliminate all materials of a lower quality to that required that are found during the operation of the quarry, gravel pit or deposits.

C
The Supplier* may use materials from the Plant* excavations once it has been qualified by specific testing for intended purpose in accordance with the Rules*.

D
All backfill and levelling soil shall be tested by the Supplier* and approved by the Owner* before use and the Supplier* shall ensure disposal of any un-used or un-approved soil.

Where the soil is contaminated the Supplier* shall handle and dispose of the soil per the approved Construction procedures and the Environmental waste disposal plan.

2.6.3.2.3 STORAGE CAPACITIES

A
The storage capacity of materials for civil Works* shall be sufficient to ensure smooth execution of the Works* at the Construction Site*, especially required continuity of concrete pouring and considering environmental conditions during construction that may not adversely affect the concrete quality.

2.6.3.2.4 STEEL MATERIALS

A
Reinforcement steel, laminated shapes and plates may be stored outdoors. They shall be classified per size and type so they can be easily counted, weighed, and handled. The Inspections* and tests shall be performed prior to use for reinforcement steel, laminated

shapes and plates in accordance with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5.

AA
Special steel in wires, rods, cables or bars used for pre-stressed concrete or for anchoring shall be kept in closed warehouses with the necessary protection and heating to prevent corrosion. This material shall not be stored in contact with the site floor or with the ground. The Inspections* and tests shall be performed prior to use for special steels in accordance with the requirements of the Rules*. All technical data regarding the product, handling, storage, used assembly, etc. shall be included in the enclosed dossier.

B
Scraps from the steel materials supplied by the Supplier* shall belong to the Supplier* and shall be removed from the Site* continuously during the construction.

C
Painted materials shall be stored in accordance with the treatment received at the shop and handled with sufficient care to prevent damage, which shall in all cases be repaired by the Supplier* at its own expense.

2.6.3.2.5 WOOD
The wood used in shoring, propping, scaffolding, form work and auxiliary construction means shall show no signs of putrefaction, mites or fungi and shall be adequately air-dried. It shall not be used before it has dried enough as required by relevant construction Works* specifications, so that no deformations occur, and OH&S is not jeopardized.

2.6.3.2.6 PRE-STRESSED PARTS
A
Pre-stressed concrete parts with adhesive anchored wires shall be prefabricated in suitably equipped workshops so the proposed pre-stressing procedures can be applied.

B
Prior to prefabrication, the supplier of pre-stressed concrete elements shall prepare a file that shall set out the essential characteristics of these elements, namely the following: Guaranteed dimensions, geometrical tolerances, steel quality, final pre-stressing, cracking and fracture stresses, as well as tests, precautions to be taken during shipment and handling of the parts and prescriptions about the unloading of the pre-stressed parts.

C
The Supplier* shall verify and maintain evidence that the geometrical dimensions of all the pre-stressed parts remain within the tolerated margins, the Owner* shall have at any time access to such evidence.

D
Upon request from the Owner*, tests may be performed to verify that the prefabricated pre-stressed concrete parts comply with the mechanical characteristics required (absence of cracking, resistance to break, deformation capacity) for one piece out of every fifty (50) or for one piece out of every set of prefabricated elements.

2.6.3.2.7 SOIL MANAGEMENT

A

The Supplier* shall remove the Topsoil* from the Construction Site* in thickness determined by the approved plan of the Land Reclamation* works. All works shall comply with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5. The Topsoil* and the Subsoil* shall be sorted and the Topsoil* shall be stored separately from the Subsoil*.

B

The Supplier* shall be responsible for stockpiling of the Topsoil* and Subsoil*. The Supplier* is also responsible for controlling and monitoring stockpiles of the Topsoil* and the Subsoil* and shall establish provisions to prevent thievery from these stockpiles. All activities shall be done in accordance with procedures and shall comply with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5 and Section 2.3.7.3 of the Scope of Supply Document*.

C

All treatment with the Topsoil* shall be done in order to prevent its degradation.

D

The height, slope and stability of the stockpiles shall be checked and documented to the Owner* at least once a year by geodetic surveying.

2.6.3.2.8 MULTI-TUBE PARTS FOR CABLES

A

The Supplier* shall not use multi-tube parts for cables in areas important to safety. For conventional areas, surfaces shall be smooth, without roughness, especially on the inside. Sharp vertical edges shall be avoided in all the sections of the blocks by bevel ling. Ducts shall be noticeably straight and with uniform direction. The terminal surfaces of the blocks shall be flat and noticeably perpendicular to the axis of the block so that they can be perfectly adapted to neighbouring tubes.

B

The joints shall be made in such a way as to prevent damage to the cables when they are installed or replaced (e.g. where screws are used, there the head of these screws and the nut shall be rounded).

C

Multi-tube parts for cables shall be used to ensure smooth cable pulling and to protect and maintain cable quality during pulling and installation.

2.6.3.3 SPECIFIC CONDITIONS FOR EXECUTION OF WORKS

2.6.3.3.1 EXCAVATIONS AND BACKFILLING

A

The Supplier* shall bear in mind the possible existence of buried installations in the Site* when carrying out open cut and underground excavations.

AA

The Supplier* shall therefore size and organize excavations so that existing functional installations do not suffer any damage (see Section 2.6.3.3.5 of this Construction and Commissioning Document*). The Supplier* shall consider relocation of functional buried

installation in case of collision with the excavation works. Any repair work carried out as a result of damage shall be to the Supplier's* account.

AB
Any existing as built of the underground utilities shall be validated by the Supplier* by soft digging at multiple location.

B
The Supplier* shall submit to the Owner* a procedure specifying how the excavations works are to be carried out.

BA
In order to avoid harsh impact to the Construction Site* vicinity and jeopardy of the safety and operation of the Existing Nuclear Power Plant* and property of third parties, the Supplier* shall organize and perform the excavation works without blasting. However, should the Supplier* require use of controlled blasting for the excavation works, the Supplier* shall provide to the Owner* detail blasting description including, but not limited to, justification of blasting use, description of potential risks associated with blasting and their mitigation, justification that impact to the Existing Nuclear Power Plant* and property of third parties is acceptable and description of measures minimizing such impact in order to satisfy provision specified in the Article 28.7.4 of the Terms and Conditions*. All blasting shall be subject to the Owner's* consent. In case such consent is provided by the Owner*, the Supplier* shall follow requirements on permitting activities as specified in the Section 1.3 of the Licensing and Permitting, Safety and Quality Document* and requirements on existing civil structures monitoring described in Section 2.6.3.3.3 of this Construction and Commissioning Document*.

C
The Supplier* shall be responsible to perform all activities in accordance with the Permits* (more details are described in the Licensing and Permitting, Safety and Quality Document*, Chapter 1).

D
Excavations shall be carried out in accordance with the construction drawings. Any excess excavation carried out shall be backfilled as needed.

E
Excavation materials not used in masonry, concrete batching or backfilling shall be transported to officially regulated waste disposal sites under the Supplier's* responsibility and in accordance with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5.

F
It shall be strictly prohibited to leave wood used in timbering, scaffolding or form work between excavation walls and adjoining brickwork.

G
All backfilling shall be inspected for the lift per the soil condition /specification and compactness test before next fill commence.

H
The Supplier* shall provide adequate back filling drainage.

HA
The water collected by backfill drainage layers shall be removed via weep holes or by contouring the walls towards the earthwork's embankment, taking appropriate steps to prevent entrainment of drainage fines.

HB
The Supplier* shall ensure measurement of quantity and quality of the collected groundwater and shall provide measured values to the Owner*.

2.6.3.3.2 CONSTRUCTION WORKS SPECIFICATION

A
The Supplier* shall prepare the construction Works* specifications for the execution of the Works* in accordance with the Rules* specified in the Technical Requirements Documents*, Chapter 2.5.

AA
These construction Works* specifications shall be sent to the Owner* for approval in accordance with the Project Management Document*, Attachment 3.

B
In the construction Works* specifications, the Supplier* shall, as a minimum, cover requirements for the following aspects:

- cement mortar;
- concrete (more details are described in the Technical Requirements Document*, Chapter 2.4 for requirements on seismic buildings);
- steel structures (materials, welding, bolted joints, expansion bolts, etc.);
- Metal liner (containment, spent fuel pools, rooms etc.).

BA
Construction works specification shall contain also:

- QA/QC documentation defined for the construction Works* in accordance with design documentation approved by the Owner* for the construction;
- risk assessment associated with construction Works*.

2.6.3.3.3 EXISTING CIVIL STRUCTURES AND EQUIPMENT MONITORING

A
The Supplier* shall provide necessary data (a list of construction activities and identified risks with their specification, quantification and timing) to the Owner* to prepare the system for monitoring of civil structures possibly influenced by construction of the Plant* in relation to use of construction machinery and construction methods.

AA
The Owner* is entitled to set conditions and restrictions for the performance of Works*.

AB
The Supplier* shall inform the Owner* in case that the provided data are changed.

B
The Supplier* shall cooperate with the Owner* to identify civil structures and equipment that could be possibly influenced by construction of the Plant* in relation to use of construction machinery and construction methods. The Owner* will elaborate monitoring plan of buildings and equipment, based on the data provided by the Supplier*.

C
After each inspection, the Supplier* shall cooperate with the Owner* during elaboration of the reports with the results of inspection and corrective action. The final report with the results of inspection will be handed over to the Supplier* for information.

D
The Supplier* shall be responsible for all damage caused to the property of the Owner* and third parties in accordance with Section 11.2 of the Terms and Conditions*.

2.6.3.3.4 GEODETIC MEASURING SYSTEMS

A
The Supplier* shall set out the Site* Works* in relation to origin coordinates elevation levels, proprietary boundaries, etc. created by the Owner* in geodetic measuring system S – JTSK (Geodetic unified trigonometric coordinate system – Křovák).

B
The Owner* requires to apply the measuring system S – JTSK also in period of construction of the Plant*. The measuring system shall be tied together with Plant*.

C
The Supplier* shall undertake all the topographical and complementary surveys which are necessary or useful for carrying out the Works*.

D
The Supplier* shall preserve the reference points and landmarks. If any of them are destroyed, the Supplier* shall be responsible for replacing them and shall notify the Owner* in writing accordingly.

E
The Owner* may carry out periodic checks of the Supplier's* setting out, but these checks regardless of the results shall not relieve the Supplier* of its responsibility for the accuracy thereof.

2.6.3.3.5 CIVIL STRUCTURES AND TECHNICAL INFRASTRUCTURE

A
The Supplier* shall not damage, manipulate or remove civil structures and technical infrastructure listed in the Technical Requirements Document*, Section 5.1.1, Table 5.1.1-1. bearing in mind its protective zones.

AA
The Supplier* shall determinate the manner of the protection of the civil structures and technical infrastructure listed in the Technical Requirements Document*, Section 5.1.1, Table 5.1.1-1 against potential damages during the Construction Time*. The manner of the protection

shall be in accordance with instruction provided by the civil structure and/or technical infrastructure owner.

AB
The Supplier* could partly use or remove any of civil structures and technical infrastructure listed in the Technical Requirements Document*, Section 5.1.1, Table 5.1.1-1. Scope of usage or removing of these shall be agreed with the respective civil and/or technical infrastructure owner and is limited by particularly connection point parameters (if any).

AC
The Supplier* shall notify to the Owner* such negotiations with the respective civil and/or technical infrastructure owner, the Owner* shall have the right to participate at such negotiations.

B
The Supplier* shall remove entire non-functional civil structures and technical infrastructure listed in the Technical Requirements Document*, Section 5.1.2, Table 5.1.2-1 which will be in collision with the civil structures and technical infrastructure of the new Plant* and/or the On Site Facilities*.

BA
Before removal of civil structures and technical infrastructure (listed in the Technical Requirements Document*, Section 5.1.2, Table 5.1.2-1) the Supplier* shall require confirmation from each owner of the civil structures and technical infrastructure that associated media and energy are disconnected from the supply.

BB
The Supplier* could partly use the civil structures and technical infrastructure listed in the Technical Requirements Document*, Section 5.1.2, Table 5.1.2-1. Such use shall be agreed with the owner of the civil structures and technical infrastructure.

C
In case the Supplier* discovers any other civil structures and/or technical infrastructure not listed in the either Technical Requirements Document*, Section 5.1.1, Table 5.1.1-1 or in the Technical Requirements Document*, Section 5.1.2, Table 5.1.2-1, the Supplier* shall inform the Owner* and confirm whether it is functional or not.

CA
Once the Supplier* informs and confirms the Owner*, that discovered other civil structures and/or technical infrastructure is functional or not, the Owner* shall in cooperation with the owner of civil structures and/or technical infrastructure decide whether the discovered infrastructure shall be protected (keep functional), re-located (keep functional), keep non-functional or to be removed.

2.6.3.4 INSPECTIONS AND TESTS

The Supplier* shall prepare and provide the Owner* for its approval with the Inspection and test plan in accordance with requirements provided under Section 6.2 of the Terms and Conditions*.

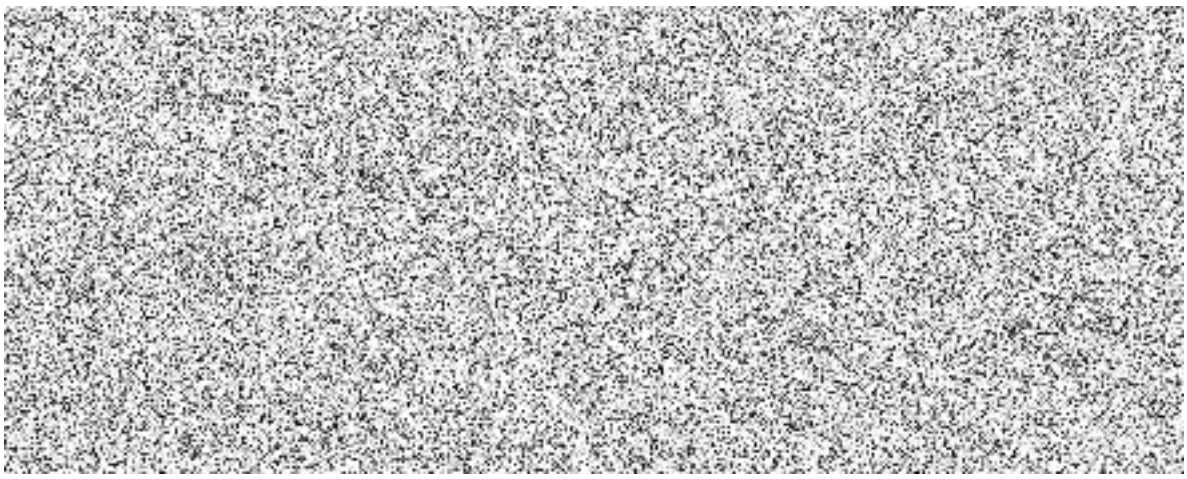
2.6.3.4.1 INSPECTION POINTS

A

No earth backfilling layer shall be placed in the fills without prior approval from the Owner's*.

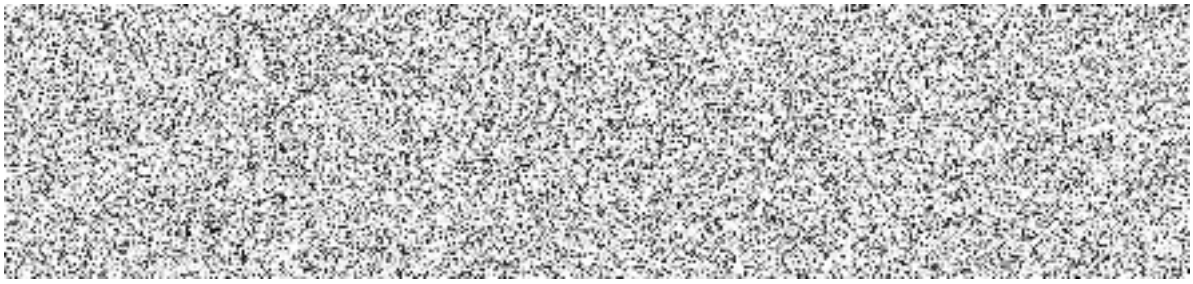
B

Concrete:



C

Welds:



2.6.3.4.2 TESTS AND EXAMINATIONS

2.6.3.4.2.1 CONCRETE

A

The Supplier* shall perform the Inspections* and tests needed to verify the quality of its materials:

a) cement;
b) aggregates;
c) water;
d) additives;
e) steel reinforcement bars;
f) composite materials.

The controls and tests shall be performed according to the Rules*, especially CSN EN 206 in force.

B
During the concreting, the Supplier* shall perform slump tests in accordance with the applicable concrete test plan. The test plan shall be prepared for each type of concrete and construction. The sampling shall be performed by the Supplier's* personnel or by a Subcontractor's* testing laboratory personnel at the pouring point, with a representative from the Owner*.

C
The Supplier* shall define the tests for different types of concrete taking into account the categorizations of the structure in accordance with seismic and quality requirements.

D
The Supplier* shall submit the test requirements for the Owner's* approval.

E
The Supplier* shall keep a record identifying the points where each series of probes are placed, and shall send a copy of each sheet to the Owner*.

F
The Owner* may request resistance tests of the probes cured at the Site* so as to verify the adequacy of the curing and the protection of the concrete in the structure. The probes shall be molded at the same time and from the same samples as those cured in the laboratory for the acceptance of the concrete.

G
The Supplier* shall use embedded sacrificial thermo-couples for monitoring the curing of concrete during the mass pours. The Supplier's* construction testing plan shall include descriptions and parameters governing the use of thermocouples. The Supplier* shall verify the water/cement ratio every day, both in the concrete mixers and for the concrete poured at the Site* including checking the temperature, slump, air content, and density before pump leaves the batch plant as well during the pouring.

2.6.3.4.2.2 OTHER CONDITIONS

A
All the materials determined by the Owner* shall be tested before they are used. The tests shall be verified at the supply point, in the laboratory proposed by the Supplier* and shall be accepted by the Owner*, which shall be warned with enough time in advance that it can witness them. If this notification is not transmitted, the Owner* may invalidate the test.

B
Whenever the responsibility for the tests has been delegated on the Supplier* and the Owner* decides to repeat those tests, the results of the latter shall prevail over the former in all respects.

2.6.4 INSTALLATION WORKS

2.6.4.1 GENERAL CONDITIONS

A
All installation Works* shall be performed in accordance with the requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5 and Sections 2.14.6 and 2.11.4.3.8 of the Technical Requirements Document*.

B
Prior to commencement of installation Works*, the Supplier* shall elaborate programs of measures for individual devices, in case of interruption or delays of work (e.g. specific measures to avoid corrosion, etc.) and submit it to the Owner* for approval.

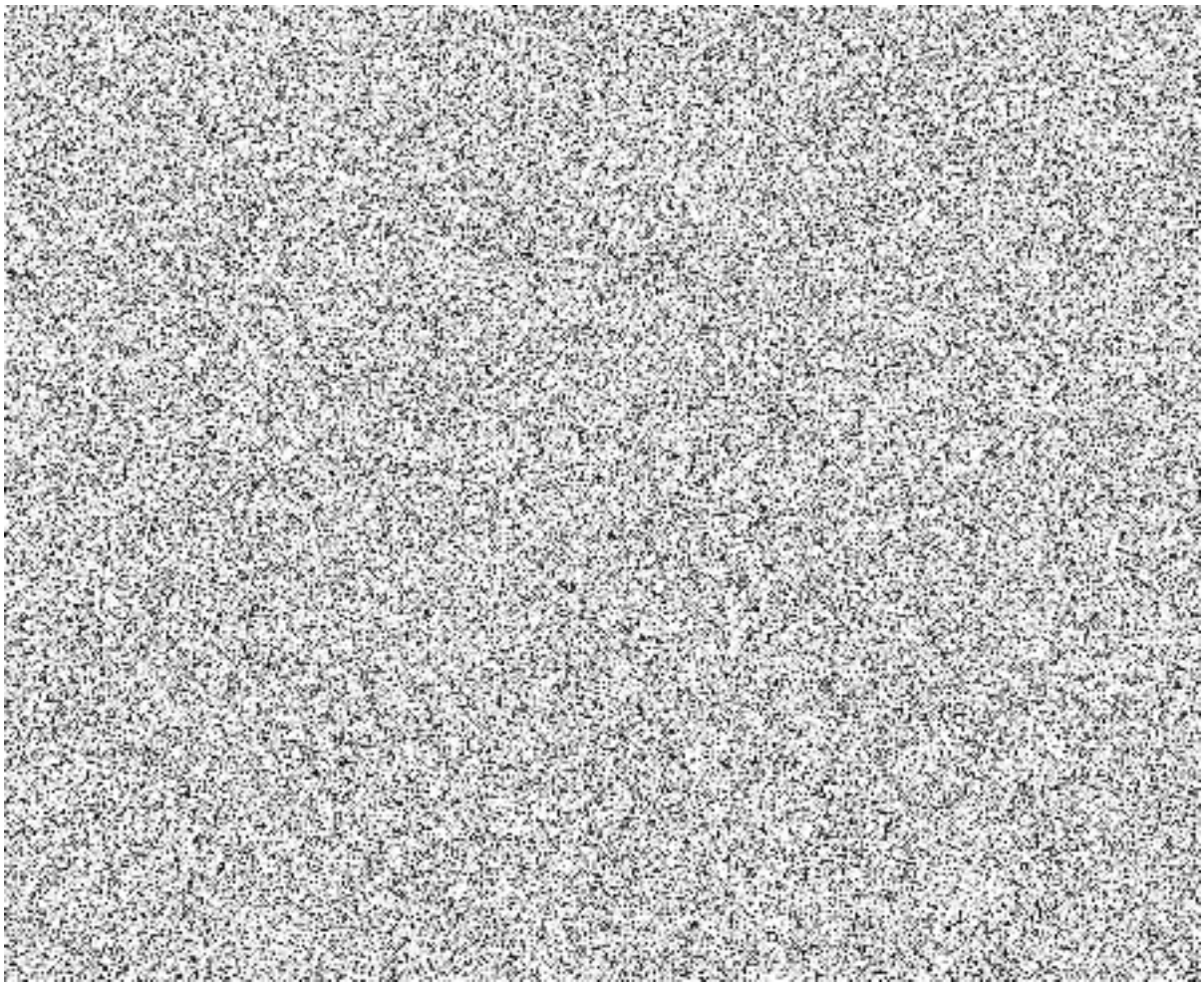
2.6.4.2 TECHNICAL CONDITIONS FOR MECHANICAL INSTALLATION WORKS

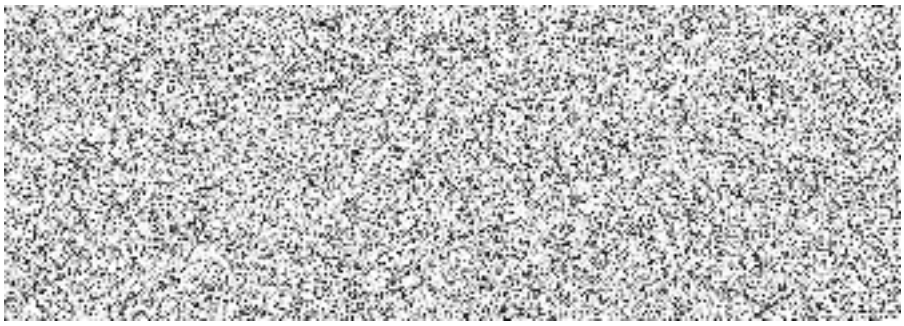
A
The Supplier* shall prepare all necessary construction Works* specifications for the execution of the mechanical erection works in accordance with the Rules* specified in the Technical Requirements Document*, Chapter 2.5.

AA
These construction Works* specifications shall be sent to the Owner* for approval according to the Project Management Document*, Chapter 3 and Attachment 3.

B
The Supplier* shall be aware that the Authorities* have right to be informed and to approve requirements/works, particularly those regarding systems and components of mechanical structures important to safety.

C
The Supplier‘s* construction Works* specifications shall contain, as a minimum, the following aspects:





D
The equipment shall not be erected in its final position until the Owner's* approval of the topographical survey.

E
For large or unusual equipment items that, due to their size or weight, require a specific erection procedure, it shall be done by the Supplier* taking into account the equipment manufacturer's instruction manuals and prior approval from the Owner* before erecting the equipment.

F
The Supplier* shall identify, in accordance with its design, the large or unusual equipment that needs specific erection procedures.

2.6.4.3 TECHNICAL CONDITIONS FOR ELECTRICAL AND INSTRUMENTATION INSTALLATION WORKS

2.6.4.3.1 GENERAL CONDITIONS

A
The Supplier* shall prepare all necessary construction Works* specifications for execution of electrical and instrumentation and control installation works in accordance with the requirements of the Rules* specified in Technical Requirements Document*, Section 2.5.

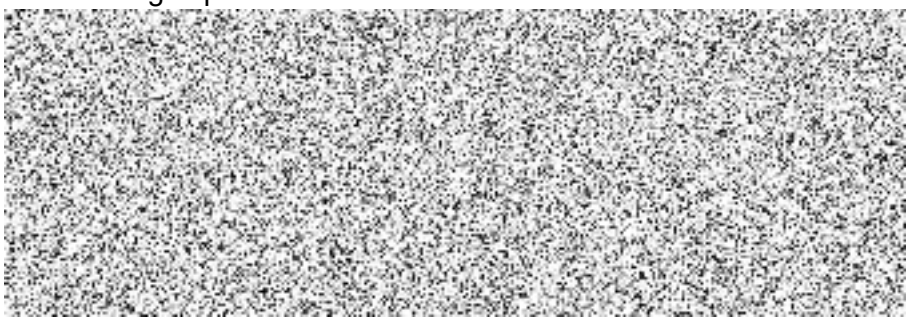
AA
These specifications shall be sent to the Owner* for evaluation and approval according to the Project Management Document*, Chapter 3 and Attachment 3.

B
The Supplier* shall be aware that the Authorities* have to be informed and have the right to approve requirements/works related with electrical and I&C equipment and systems important to safety.

2.6.4.3.2 ELECTRICAL INSTALLATION WORKS

A
The Supplier* shall provide a detail written plan for cable Management and allocation of the cable drum per pull package. The focus needs to align the engineering cable routing with construction input and assign it to construction volume/ Area.

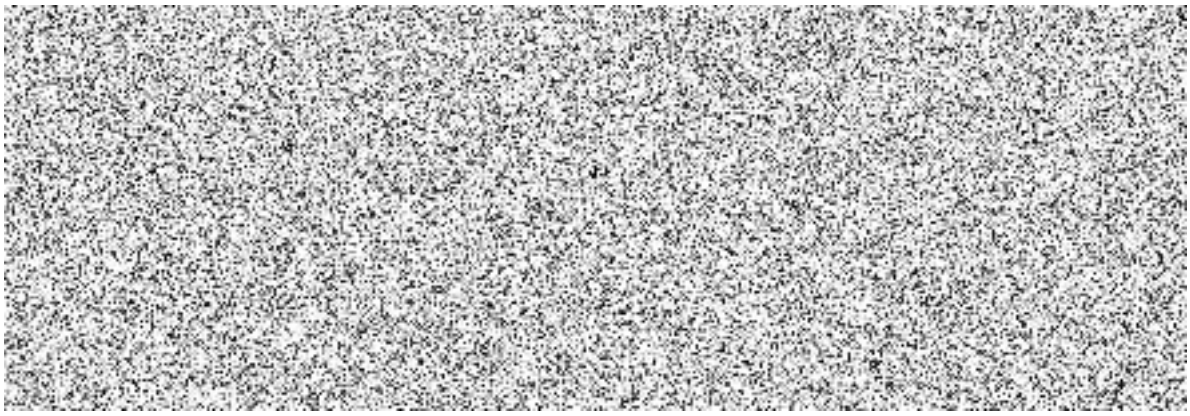
B
The Supplier's* construction Works* specifications shall contain, as a minimum, requirements of the following aspects:



See also the Technical Requirements Document*, Section 2.7.11.4.

2.6.4.3.3 INSTRUMENTATION AND CONTROL INSTALLATION WORKS

A
The Supplier's* construction Works* specifications shall contain, as a minimum, requirements of the following aspects:



B
The Supplier* shall provide system installation plan for I&C systems.
Requirements related to the system installation plan are specified in the Technical Requirements Document*, Section 2.10.6.3.6.

2.7 TRANSPORT TO SITE, STORAGE AND HANDLING

2.7.1 IDENTIFICATION

A
Equipment and supplies shall be packaged for shipment in accordance with the technical specification. Packing, transport, handling and storage specifications shall be sent to the Owner*. All parts, boxes or packages shall be clearly identified on all faces.

B
Each package shall contain the following information applied with indelible black paint:

- the Owner*;
- the Project*;

- the Supplier*;
- place of destination;
- the EPC Contract* No.;
- package series No.;
- package No.;
- brief description of contents and passport number;
- package weight;
- dimensions.

2.7.2 MATERIAL AND EQUIPMENT CONDITIONING AND PACKING

A

Equipment surfaces shall be protected, as necessary, with paint, surface treatment, provisional packing, or any other means in keeping with the nature of the material.

B

Before packing, all loose parts, spare parts and machined internal surfaces shall be protected against rust with an appropriate product.

C

All materials and/or equipment shall be cleaned, suitably packed and protected against corrosion, harmful agents such as water, humidity, condensation, saline atmospheres, extreme temperatures, dust, solar radiation, contamination, etc., prior to packing, rough handling and bumps during transport, considering the shipment requirements particularly in case of maritime or air transports.

D

Packing shall be suitable for any type of transport especially international maritime or air transports and equipped with desiccant sachets, as required.

E

All tubes, pipes, nozzles, ducts and conduits shall be suitably sealed with caps.

F

All mechanical equipment openings (pumps, tanks, etc.) shall be protected with discs made of wood or similar material and metal washers. The assembly shall be bolted to a common flange. Threaded connections shall be protected by threaded plugs, caps or suitable wrapping.

G

Mechanical, electrical and electronic equipment shall be packed in completely sealed wooden or other suitable material boxes.

H

Any equipment susceptible to damage caused by water or high humidity shall be packed in waterproof paper or airtight containers.

I

The equipment susceptible to damage caused by a shock, crash, high/low temperature, frost, humidity or water condensation shall be appropriately packed and equipped with acceleration, humidity, temperature or air pressure sensors and data logger.

J
Boxes or packages to be manipulated by hands shall have appropriate dimensions and their weight shall be in accordance with limits specified in Gov. Order No. 361/2007 Coll., as amended, e.g. 50 kilograms for occasional lift and carrying and 30 kilograms for normal lift and carrying for a man.

K
Parts which are not firmly connected to the main equipment – such as accessories, motors, etc. shall be packed separately.

If necessary, the rotors of rotating machinery shall be blocked.

L
Rods, bars, pipes, plates and shapes, etc., shall be shipped in packages of uniform length. For those to be manipulated by hand shall apply the same weight limits as defined in the Section 2.7.2 J of this Construction and Commissioning Document*.

M
Prefabricated pipe assemblies shall be cleaned inside to remove all sand, rust, scale, dirt or foreign materials/bodies. Chemicals, wire brush or shot peening may be used for cleaning. Pipe ends shall be capped immediately after cleaning.

N
The external surfaces of carbon steel or low alloy pipes shall be protected with suitable paint after cleaning off loose scale and foreign materials/bodies.

O
Machined surfaces and carbon steel or low alloy flanges shall be coated with special oil or grease which does not have to be cleaned off at the Site* before welding. Those made of high alloy steel shall be protected with Kraft paper or plastic.

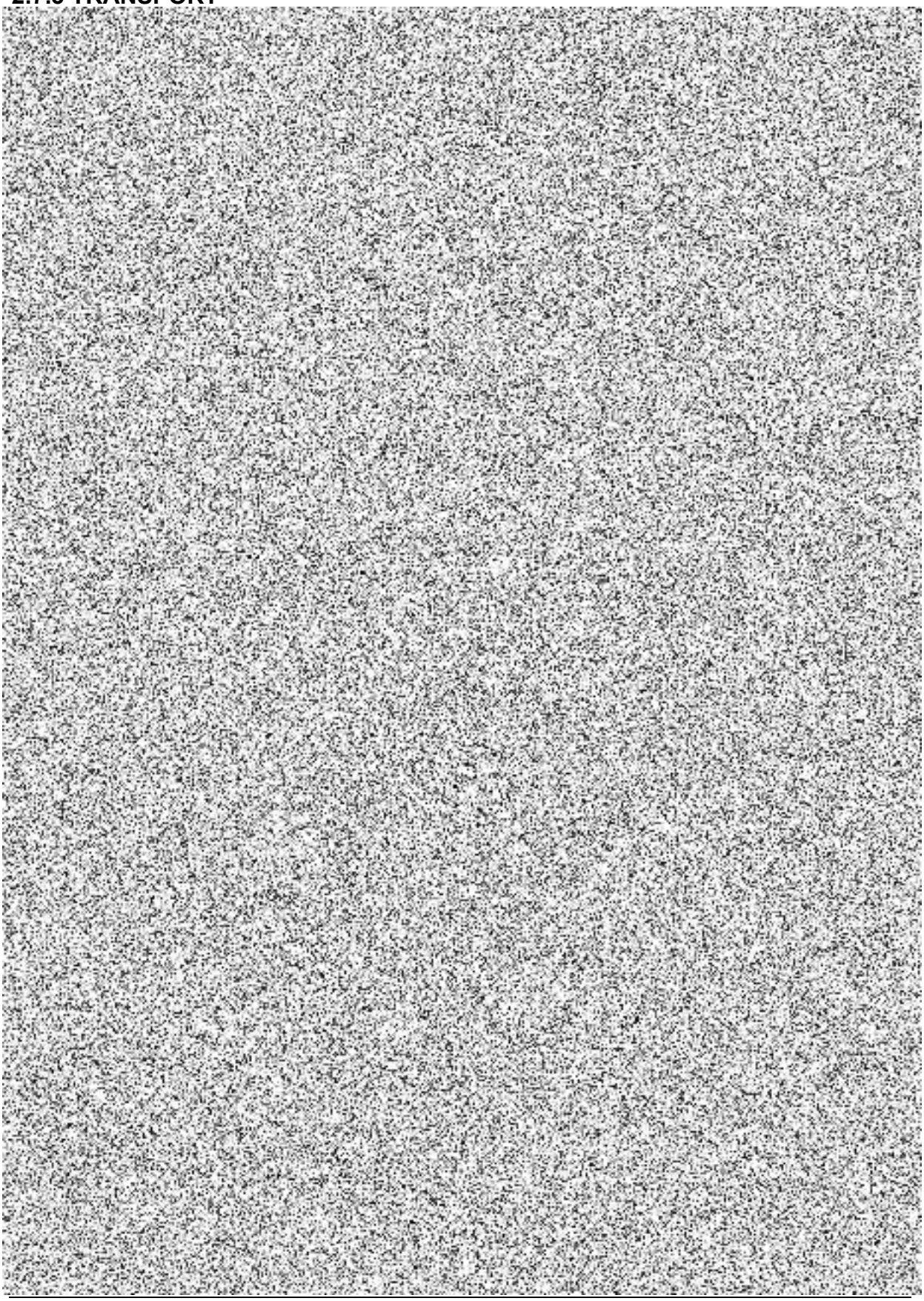
P
Pipe ends with prefabricated welding edges shall be protected with a metal hood furnished with a wooden or other suitable material disc which will be in contact with the prefabricated welding edge.

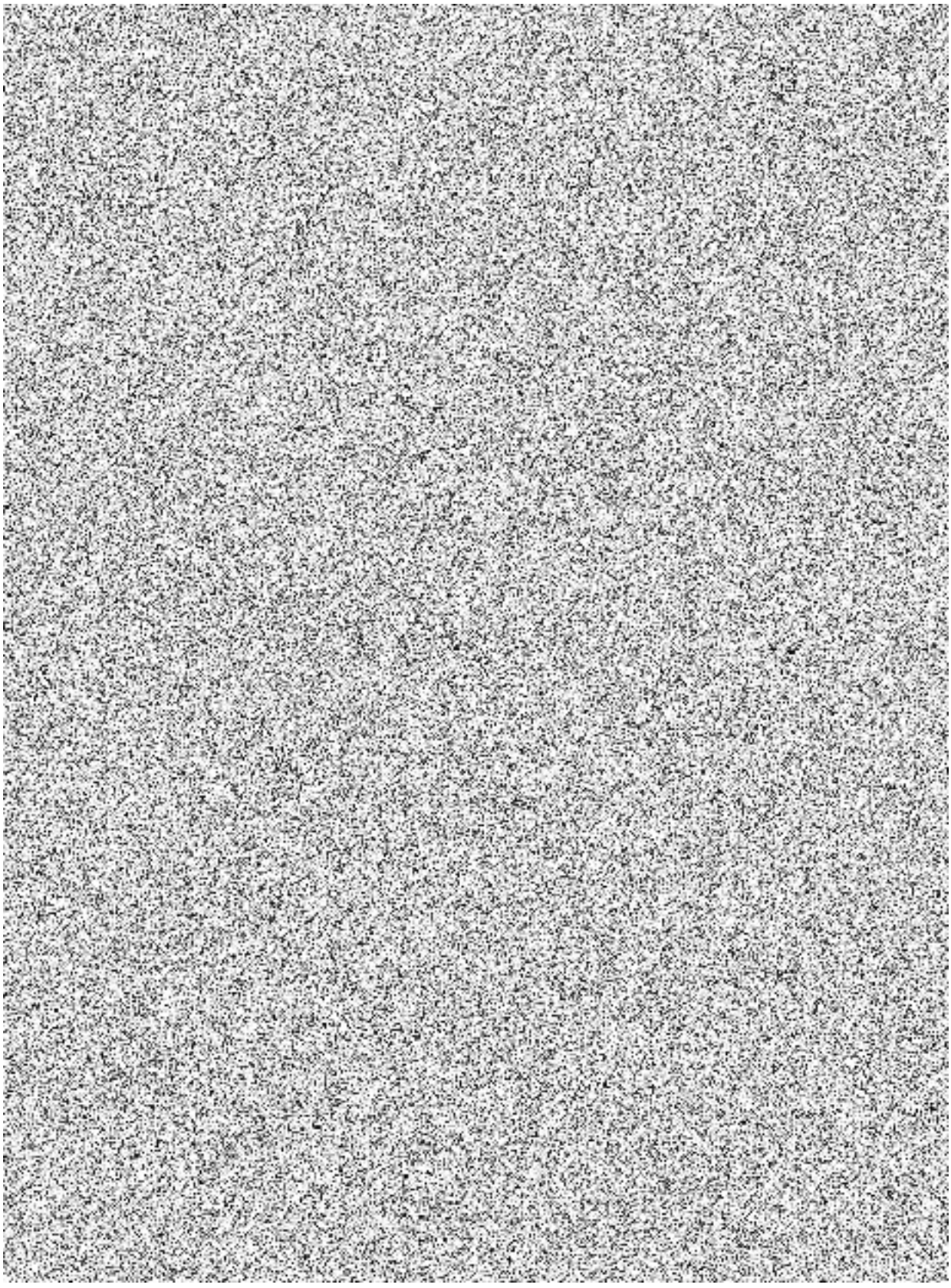
Q
Pipe ends and accessories without prefabricated welding edges shall be protected with plastic plugs, or similar.

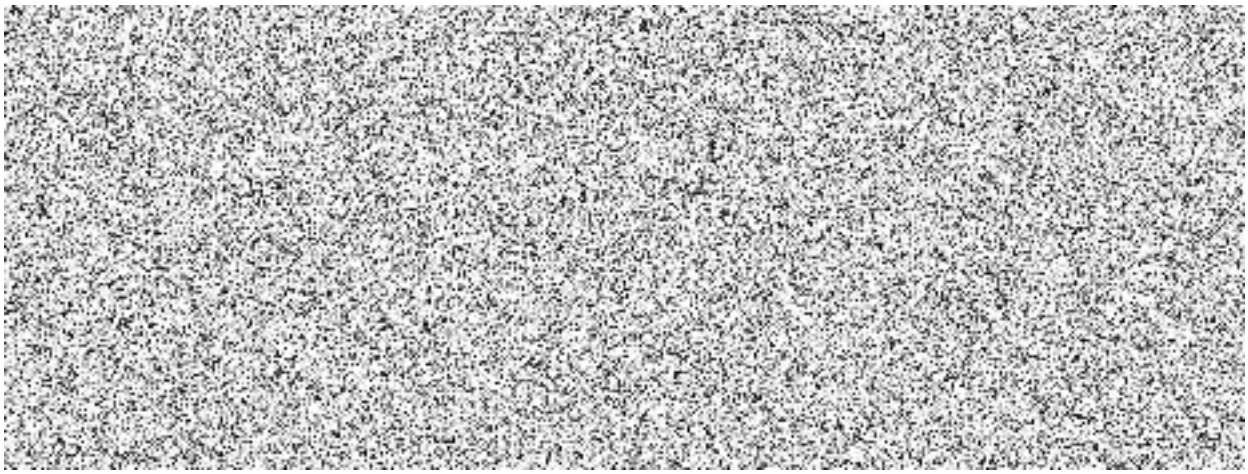
R
The metal hoods or plastic plugs shall be firmly fixed to the pipe with adhesive plastic tape, making the seal airtight.

S
Flanges shall be protected with a wooden or other suitable material disc fixed with bolts.

2.7.3 TRANSPORT







2.7.4 STORAGE, HANDLING AND PRESERVATION

A

The Supplier* shall have the Site* reception procedure establishing the classification of equipment and materials according to type, their reception status unloading requirements, and storage and preservation conditions up to their final installation.

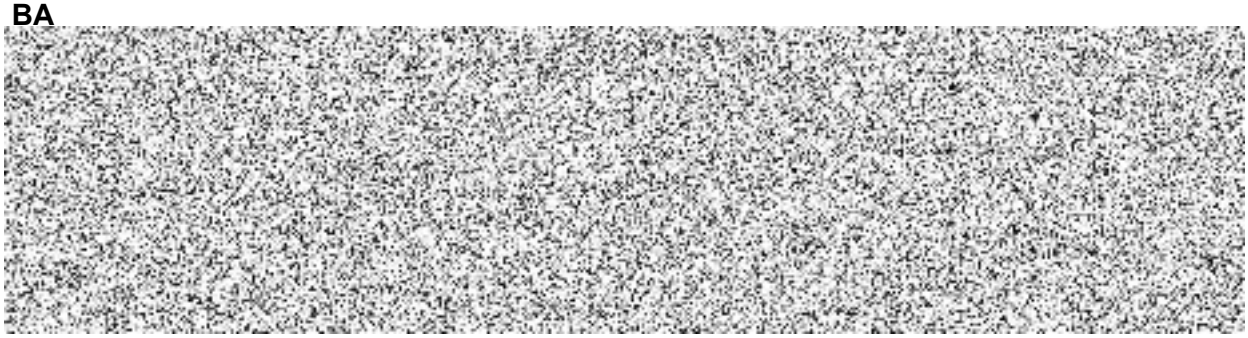
AA

The Owner* shall have the right to access the warehouses and supervise all storage activities.

B

The Supplier* shall establish a general storage procedure which contemplates all technical and administrative aspects relating to warehouse operation and defines the material registration and issuance procedures to be followed, including preservation, in accordance with the equipment manufacturer's instructions.

BA



C

CA

All equipment and materials shall be kept in their storage place with the original packaging and protection. If any packaging or protection deteriorates during the storage period, it shall be replaced.

D

The Supplier* shall be responsible for the correct handling of equipment and materials during loading, transport to the Site*, unloading and storage.

DA
During transport and placing of prefabricated pre-stressed elements on the Site*, the median plane of the beams shall be kept vertical, and their ends shall be suspended or leaning against neighbouring areas.

E
In accordance with the equipment manufacturer's instructions, the Supplier* shall establish the maintenance and preservation activities to be carried out during the storage and erection phases and, in the case of equipment already installed, in its final location, up to the Provisional Takeover* of the Plant*.
Maintenance and preservation activities shall be part of the equipment maintenance procedures provided to the Owner* in accordance with the Project Management Document*, Attachment 3, Section 1.3.9.

F
The Supplier* shall also adequately protect finished foundations up to the time the equipment or structure is erected, to prevent any damage on anchor bolts.

G
The Supplier* shall develop procedures including the process for receipt inspection of the Things* to the Site* by the Supplier* and the related administration process and acceptance of the Things*, including issue document Material Inspection and Receiving Report.

2.8 TESTS

2.8.1 FACTORY ACCEPTANCE TESTS AND INSPECTIONS

2.8.1.1 GENERAL

A
The Supplier's* equipment including software and supporting equipment, if applicable, shall be tested according to the requirements of the Rules*, EPC Contract*, and to those established in the Supplier* relevant design and procurement documentation (see also the Project Management Document*, Attachment 3 and the Technical Requirements Document*, Section 2.14.6).

All the tests and Inspections* shall be performed as per authorized step-by-step written Test Procedures with clearly defined goals and acceptance criteria.

B
The Supplier* shall supervise all test activities (including those of its Subcontractors*) during equipment factory acceptance test, to ensure compliance with the EPC Contract* relevant requirements.

C
All necessary Licenses* and Permits* required for the Factory Acceptance Test shall be part of the Licensing and Permitting Plan*.

D
The Supplier* shall develop the procedure of tests notifications. The Supplier* shall provide the Owner* with the notification procedure as part of the Construction procedure manual and

this notification procedure shall be subject of Owner's* approval. See Project Management Document*, Section 3.21.

2.8.1.2 OWNER PRESENCE IN THE TEST

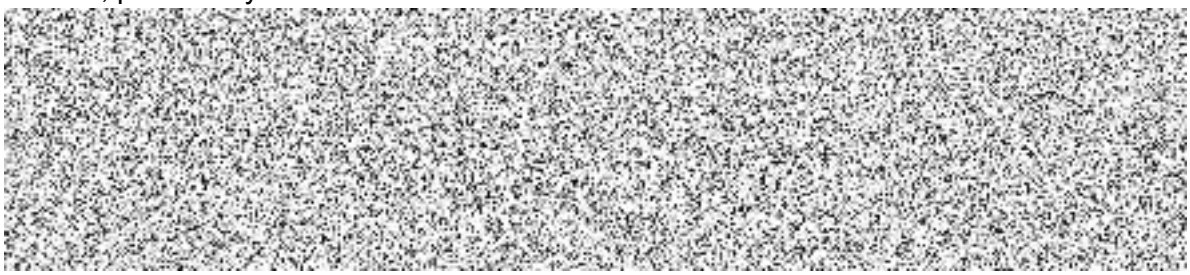
A

The Owner* shall have access to the facilities of the Supplier* and of its Subcontractor's*; it shall have the right to inspect, examine and witness all tests to be performed on the equipment included in the Supplier's* Scope of Supply*, in accordance with the requirements provided under Section 6.2 of the Terms and Conditions*.

2.8.1.3 INSPECTION DOCUMENTATION

A

The Supplier* shall keep up-to-date records of all fabrication, testing and the Inspection* processes, particularly:



AA

These records forming manufacturing quality dossier shall be made available to the Owner*.
In addition, the Owner* shall have access through the entire Project* to all quality reports, records and Documents* prepared by the Supplier* or its Subcontractors*.
For additional requirements see the Project Management Document*, Section 2.13.3.

B

The Supplier* shall provide the Owner* with a final manufacturing quality dossier i.e. Documents* of the equipment and materials supplied, containing complete set of the results of all the Inspection* and tests performed in accordance with Inspection and test plans and manufacturing procedures in accordance with Article 6.2.10 of the Terms and Conditions* or together with associated equipment delivery at the latest.

C

This dossier shall also contain all certificates of compliance with applicable legislation and technical specification, thereby confirming that testing has been carried out in accordance with the requirements of the Rules* and requirements of the EPC Contract*, the charts and data recorded during the tests, certificates of the materials used, certificates of the chemical and/or physical analyses of the materials used as well as confirming compliance with the acceptance criteria. The dossier shall also indicate any nonconformity observed, as well as their resolution in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 3.6.

D

Project* progress reports (monthly Project* progress report and weekly Site* Progress Report) shall include a section entitled "Testing", which will be subdivided into "Factory Acceptance Testing (FATs)" and "Site Acceptance Tests (SATs)". For additional requirements see the Project Management Document*, Section 3.7.

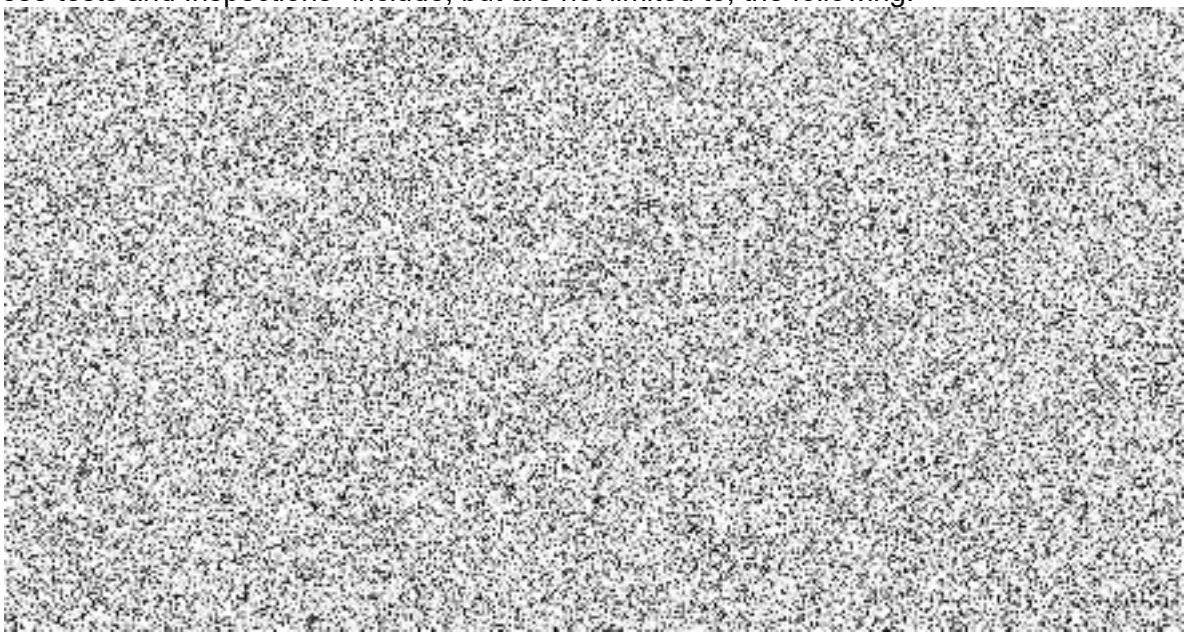
E
In addition to identification and brief description of the tests carried out during the reporting period, the factory acceptance test report shall include the link to access the Documents* included in the manufacturing quality dossier.

EA
All final manufacturing quality dossiers shall form a part of the Final Commissioning Dossier (see Section 3.2.6 of this Construction and Commissioning Document*.
For additional requirements relating to testing in factory, see Licensing and Permitting, Safety and Quality Document*, Sections 3.4, 3.5 and 3.6.

2.8.2 CONSTRUCTION TESTS AND INSPECTIONS, SITE ACCEPTANCE TESTS (SATS)

2.8.2.1 OBJECTIVE OF CONSTRUCTION TESTS AND INSPECTIONS

A
The Supplier* shall perform all construction tests and Inspections* to demonstrate that components and systems of the Plant* and/or Unit* are correctly installed and operational. These tests and Inspections* include, but are not limited to, the following:



AB
The Supplier* shall carry out these tasks in the framework of the last erection phases.

AC
The Supplier* shall develop the procedure of Site* tests notifications. The Supplier* shall provide the Owner* with the notification procedure as part of the Construction procedure manual and Commissioning* manual and this notification procedure shall be subject of Owner's* approval. See Project Management Document*, Section 3.21.

AD
The Supplier* shall inform the Owner* about each and every test / inspection scheduled for activities carried at the Site*. The notification procedure shall include as minimum: the reference ID of the test / inspection, location within the Site* and time.

AE
The Supplier* shall send notifications to the Owner* at least 24 hours prior the beginning of each test.

B
The Supplier* shall ensure that all installed SSC are in compliance with requirements on classified equipment specified in the Rules*, in particular Act No.174/1968 Coll., as amended and its implementing Decrees (see the Technical Requirements Document*, Section 2.5.3.2.3).

C
All the tests and Inspections* shall be performed as per authorized step-by-step written Test Procedures with clearly defined goals and acceptance criteria. The preparation of Test Procedures, including their verification and approval, shall be defined by an administrative procedure which shall be provided to the Owner* for approval.

CA
The Supplier* shall provide the construction tests and Inspections* documentation and procedures based on the completed design documentation and presented in a form that can be maintained, updated and used over the lifetime of the Plant*.

CB
The Supplier* shall ensure that the construction tests and Inspections* documentation and procedures comply with the requirements of the Mandatory Law* and the Requirements of the Authorities* (according to the Rules* specified in the Technical Requirements Document*, Chapter 2.5).

CC
The procedures shall be subject to a thorough verification and approval process in which the Authorities* and the Owner* shall participate. Designer shall be engaged during the process of procedures verification.

CD
All special equipment, measuring instruments and devices including measuring and testing SW tools used for the construction tests and Inspections* shall be properly calibrated and certified according to the requirements of the Mandatory Law* and the Requirements of the Authorities* (according to the Rules* specified in the Technical Requirements Document*, Chapter 2.5).

D
Performance of said tasks shall follow strict protocols and be duly documented; the corresponding documents shall be included into the turnover documentation that will accompany the transfer of each system from construction to the Commissioning*.

E
The Supplier* shall show how the Construction Procedure Manual takes into account the coexistence of the systems being tested or operated (energized, pressurized, etc.) and other systems being assembled.

F
Some of the construction tests and Inspections* of specific SSC are performed during the Commissioning*, more details are described in the Chapter 3 of this Construction and Commissioning Document*.

G
The installation of Supplier's* temporary cables, pipes and I&C settings necessary for construction tests and Inspections* shall be carried out in accordance with guidelines prepared by the Supplier* and approved by the Owner*. The location of the temporary installations shall be in advance provided to the Owner*. The ones interfering or potentially impacting the Owner's* facilities shall be agreed with the Owner*.

H
All necessary Licenses* and Permits* required for the construction tests and Inspections* shall be part of the Licensing and Permitting Plan*.

2.8.2.1.1 OWNER'S PRESENCE IN THE TEST

A
The Owner* shall have access to the facilities of the Supplier* and of its Subcontractor's*; it shall have the right to inspect, examine and witness all tests to be performed on systems and equipment.

B
The Supplier* shall allow the presence of the Authorities* representative during the testing of SSC and the access to the Inspections* and tests results (see also Article 5.5.2 of the Terms and Conditions*).

C
See also requirements provided under Section 6.2 of the Terms and Conditions*.

2.8.2.1.2 INSPECTION DOCUMENTATION

A
The Supplier* shall keep up-to-date records of all construction testing and the Inspection* processes, particularly:

a. Pressure test results, if required by applicable standards
b. Construction completion test
c. Approval (certificate) of the appropriate Authorities* (if required)

B
These records shall be made available to the Owner* at the Site* and shall be included in the final quality dossier. For additional requirements related to quality reports and records see Section 2.6.2.1 of this Construction and Commissioning Document* and Section 3.5 of the Licensing and Permitting, Safety and Quality Document*.

BA
The dossier of these records shall also contain all certificates of compliance with applicable legislation and technical specification, thereby confirming that testing has been carried out in accordance with the requirements of the Rules* and requirements of the EPC Contract*, the charts and data recorded during the tests, certificates of the materials used, certificates of the chemical and/or physical analyses of the materials used as well as confirming compliance with the acceptance criteria. The dossier shall also indicate any nonconformity observed, as well

as their resolution in accordance with the Licensing and Permitting, Safety and Quality Document*, Section 3.6.

C
Inspection* and test reports shall also be provided in accordance with Article 6.2.10 of the Terms and Conditions*.

D
Project* progress reports (monthly Project* progress report and weekly Site* Progress Report) shall include a section entitled “Testing”, which will be subdivided into “Factory Acceptance Testing (FATs)” and “Site Acceptance Tests (SATs)”. For additional requirements see the Project Management Document*, Section 3.7.

In addition to identification and brief description of the tests carried out during the reporting period, the SATs test report shall include link to access the Documents* included in the final quality dossier.

DA
All of final quality dossiers shall form a part of the Final Commissioning* Dossier, see Section 3.2.6 of this Construction and Commissioning Document*.
For additional requirements related to quality reports and records, see the Project Management Document*, Section 2.13.3 and the Licensing and Permitting, Safety and Quality Document*, Sections 3.4, 3.5 and 3.6.

2.8.2.2 PRELIMINARY CLEANING OF SYSTEMS AND EQUIPMENT

A
Mechanical cleaning shall be carried out on components such as tanks and vessels, heat exchangers, piping, condensers, etc., it shall be performed and documented in accordance with applicable procedures (see section 2.8.2.1. of this Construction and Commissioning Document*). Piping and components installed in the systems shall also be flushed in accordance with Section 2.8.2.8 of this Construction and Commissioning Document*. If the piping system is not immediately put in service after clean-up there, the Supplier* shall make provisions for preservation of the system by either sealing or nitrogen purge depending on the service class of the piping system.

B
Chemical cleaning shall be carried out on pipes and other components as appropriate according to the required technical conditions.

C
The Supplier* shall plan for pre-installation hydro-laze for section of pipe which cannot be flushed, or chemical cleaned after installation due to lack of isolation or draining location.

2.8.2.3 HYDROSTATIC TESTING OF EQUIPMENT AND COMPONENTS

A
Hydrostatic or pressure testing shall be performed on all equipment and components (pipes, valves, fitting, etc.), as applicable, in accordance with the applicable Rules* and procedures, (more details are described in the Technical Requirements Document*, Chapter 2.5) The Supplier* is responsible for ensuring of the presence of the Authorities* during testing, if applicable.

AA
The Supplier* shall provide efficient anti corrosive protection after and if necessary in between tests and maintain it during the whole Commissioning* process.

2.8.2.4 CABLE INSULATION RESISTANCE MEASUREMENT

A
Cable insulation resistance shall be measured on electric equipment and system cables, where applicable.

AA
The associated protocol data sheets shall indicate test time, applied test voltage, results obtained, and test equipment used (including identification and calibration certificate). In all cases, the associated Czech electrotechnical Codes and Standards* shall be applied (see the Technical Requirements Document*, Chapter 2.5).

2.8.2.5 MEASUREMENT OF CABLES CONTINUITY

A
Continuity shall be measured in electric equipment and all types of system cables (electrical, fiber optic, …) prior to their energization or utilization.

AA
The associated protocol data sheets shall indicate test time, results obtained, and test equipment used (including identification and calibration certificate).

B
The Supplier* shall provide access to the electrical cable database access to the Owner*. This database shall be used for in process cable management which shall include but not limited to cable type, associated equipment (from and to) cable testing and final, termination report etc.

2.8.2.6 PROTECTIONS

A
Testing of protection shall minimally include: verification of differential pressure switches, voltage drop measurement, checking of the network of surge arrestors and their earthing connections.

AA
The associated protocol data sheets shall indicate test time, applied test voltage, results obtained, and test equipment used (including identification and calibration certificate). In all cases, the associated Czech electrotechnical Codes and Standards* shall be applied (see the Technical Requirements Document*, Chapter 2.5).

2.8.2.7 EARTHING

A
Earthing resistance shall be checked, as well as step and touch voltages.

AA
The associated protocol data sheets shall indicate test time, applied test voltage, results obtained, and test equipment used (including identification and calibration certificate). In all cases, the associated Czech electrotechnical Codes and Standards* shall be applied (see the Technical Requirements Document*, Chapter 2.5).

2.8.2.8 FLUSHING

A

The number of systems that required flushing shall be minimized. The Owner* prefers the construction and assembly to be performed with the appropriate level of internal and external cleanliness, with additional checks to prove the required surface condition.

B

The systems that require flushing (hydraulic actuation, lube oil, etc.) shall undergo flushing, duly performed and documented in accordance with applicable procedures.

C

The Supplier* shall submit to the Owner* the report on results of the flushing and their comparison with expected results. The Supplier* shall provide efficient anticorrosion protection after each flushing and maintain it during the Commissioning* process. Additionally, the Supplier* shall develop a corrosion evaluation procedure and regularly monitor the corrosion of SSC, results shall be provided as a part of Commissioning Dossier (see Section 3.2.6 of this Construction and Commissioning Document*).

2.8.2.9 EQUIPMENT AND COMPONENTS TESTING

2.8.2.9.1 GENERAL REQUIREMENTS

A

The Supplier* shall perform tests on SSC and Services* in accordance with the Inspection and test plans and respective procedures and instructions of the Supplier* as defined in the Terms and Conditions*, Section 6.2 and the Licensing and Permitting, Safety and Quality Document*, Section 3.4.

AA

The Supplier* shall submit to the Owner* the Quality plans, Inspection and test plans and procedures prior to the commencement of the testing activities in accordance with the Terms and Conditions*, Section 6.2 and the Licensing and Permitting, Safety and Quality Document*, Section 3.5.

B

In the case of specific equipment or the Package Plant*, the minimum requirement shall be compliance with the values and operating requirements laid down in the specifications for these components (design values). Verifications shall take place throughout the functional test.

C

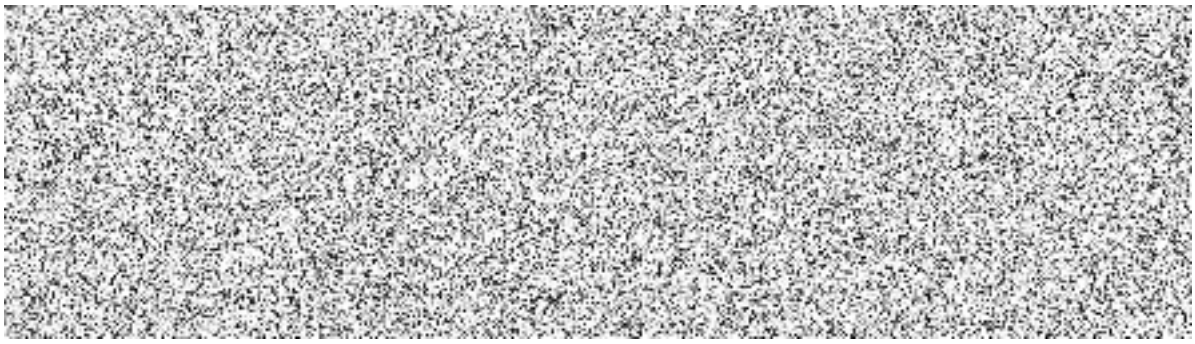
The following tests and activities shall be performed on all equipment and components:

CA

The Inspection*, review and verification of the state of equipment and associated components

CB

The equipment Inspection* shall follow the inspection procedures established for application to the Commissioning*; special attention shall be paid to:



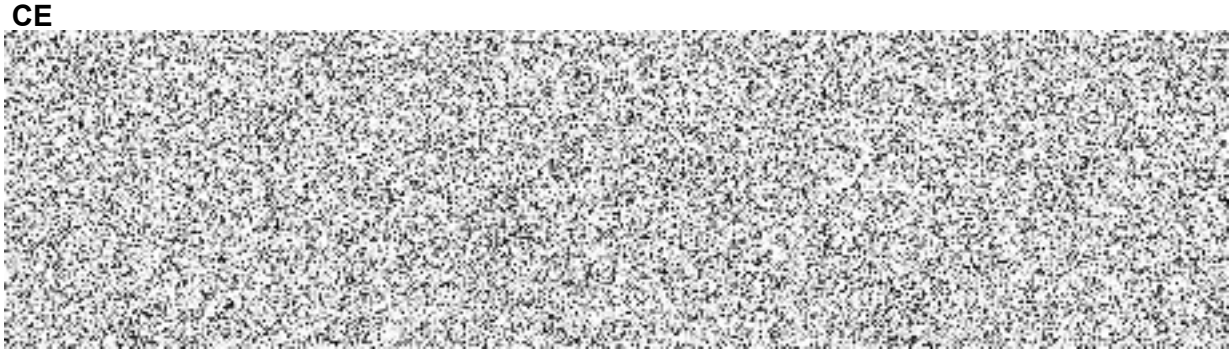
CC

Cleaning of equipment and components. As a rule, a first mechanical and hydraulic cleaning shall be performed, followed by cleaning with pressurized water: pressure hosing, hydro laser, flushing, etc. The equipment and components shall be dried after these operations. Equipment and components which is not possible to dry shall be excluded from the flushing programme.

CD

Mechanical review of the equipment and associated components, including pipes, connections, valves, vents and drains.

CE



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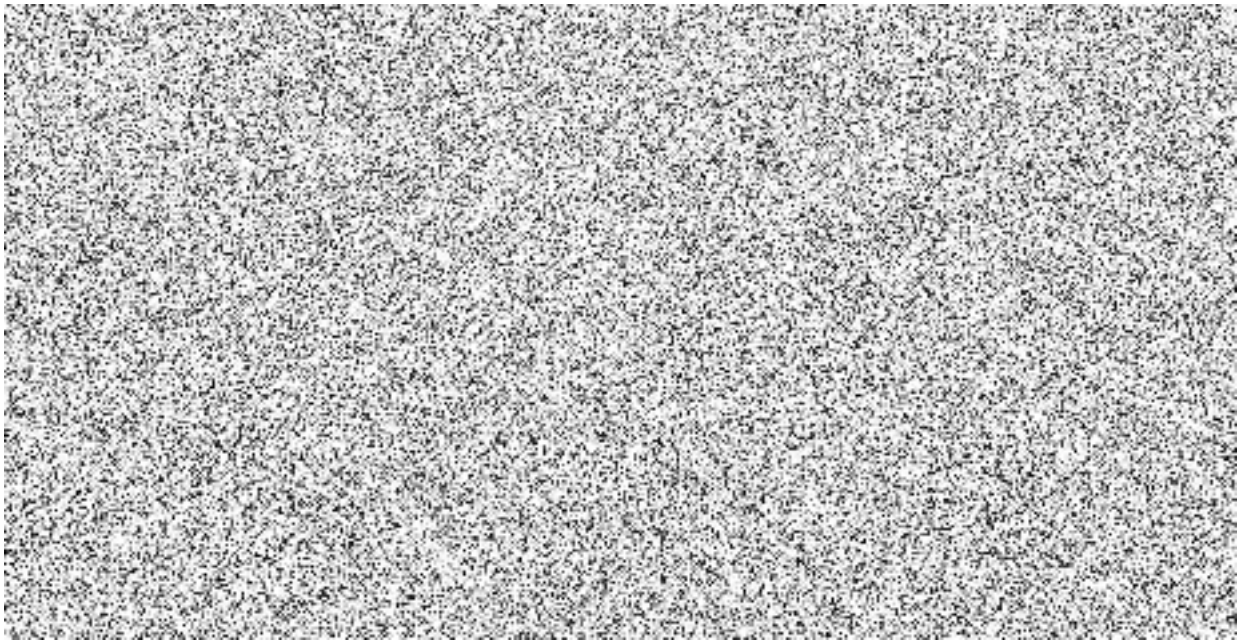
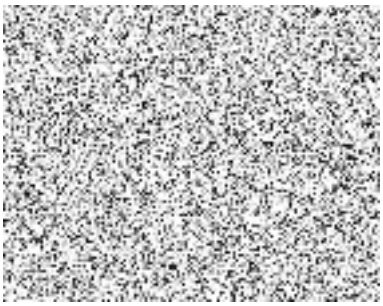




D
All measurements, verifications and test shall be carried out according to requirements of the Rules* specified in the Technical Requirements Document*, Chapter 2.5, procedures and with Good Engineering Practice*.

E
All data shall be recorded; the test results obtained shall be compared with the specified values and with factory acceptance testing values.

EA
Deviations observed shall be corrected in accordance with applicable standards and the manufacturer's recommendations.

F
The Supplier* shall be responsible for the performance of the aforementioned tests and verifications that apply to each specific item to be tested, with the particularities indicated in the following.

G
The Supplier* shall provide the Owner* with documentation that contains complete results of testing activities (for details see Sections 2.6.2.1, 2.8.2.1.2 and 3.2.6 of this Construction and Commissioning Document*).

2.8.2.9.2 I&C EQUIPMENT AND SYSTEMS

A
The Supplier* shall check the connection between all Plant* components and the control system, as well as their individual and overall configuration and operation.

B
The testing of the Plant* control system shall commence after energization. To this end, the Supplier* shall perform as a minimum the following activities in accordance with the applicable procedures:

C
For the other requirements on I&C system testing see Section 2.10.7.2 of the Technical Requirements Document*.

2.8.2.9.3 MAIN EQUIPMENT / SYSTEM TEST

A

During the LWA Phase* the Supplier* shall provide to the Owner* for approval the list of main equipment/system requiring special Test Procedures, with the schedule of their development.

B

The Supplier* shall develop special procedures for each of the main equipment /system (required contents of procedures is described in Section 3.2 of this Construction and Commissioning Document*) which is part of the Plant* for the NI, PGP, BOP and the Support Facilities*.

BA

The Supplier* shall perform Factory Acceptance Tests, Site Acceptance Tests and Availability Tests of the Training Simulator* according to the requirements stipulated in Section 2.20.2.6 of the Technical Requirements Document*.

2.8.2.10 INTERRELATED SSC

A

The Supplier* shall perform tests and Inspections* of the Structures, Systems and Components* up to the respective connection point. After execution of connection to the battery limit, the Supplier* shall perform testing of the connection.

B

The Supplier* shall develop special procedures for tests and Inspections* of interrelated SSC (required contents of procedures is described in Section 3.2 of this Construction and Commissioning Document*), these procedures shall be approved by the Owner*.

2.9 TURN OVER FROM CONSTRUCTION TO COMMISSIONING

A

After the completion of construction activities, SSCs are transferred from the construction organization to the Commissioning* organization and all responsibility for the transferred SSCs is moved to the Commissioning* organization.

AA

The Supplier* shall divide SSCs within the Plant* into the parts (turn over packages) to be gradually transferred from the construction organization to the Commissioning* organization. The Supplier* shall develop rules and prerequisites for turn over packages transfer from the construction organization to the Commissioning* organization including detailed schedule of such transfer and provide it to the Owner* for approval.

AB

The Supplier* shall develop procedures to control the finalization of the construction phase and transfer to the Commissioning* which describe in details provisions that are established and implemented to coordinate this gradual transfer, including development and maintenance of the associated Punch List*.

AC

The procedures shall also include the list of the associated Documents* (such as final quality dossier, design documentation of the SSC with status as-built after completion of the erection

and the installation, operation and maintenance manuals, …), needed during Commissioning*, required level of construction completion including conditions which must be fulfilled in order to turn the SSC over to the Commissioning*, the way to assign responsibility/date for rectification of the pending Defects* and performance of the pending Works* included in the Punch List*.

AD
The Supplier* shall not transfer any turn over package to the Commissioning* unless any Defects* with potential impact to safety, reliability, performance, availability and lifetime of any SSC within the turn over package have been rectified and any pending Works* have been performed by the Supplier* and associated final quality dossiers have been provided to the Owner* (see Section 2.6.2.1 of this Construction and Commissioning Document*).

B
Construction completion of turn over packages and the associated Documents* shall be approved by the Supplier's* construction organization and accepted by the Commissioning* organization.

C
A specific meeting for transfer of each turn over package shall be held. The Supplier* shall inform the Owner* about these meetings ahead and the Owner* shall have the right to attend these transfer meetings.
Organization of the meetings shall be described in the procedures mentioned in Paragraph AB and AC in this Section 2.9.

CA
The Supplier* shall handover the associated Documents* included in turn over package to the Owner* as a part of accompanying technical documentation (see the Project Management Document*, Attachment 3, Section 1.3.9) including the up to date as-built design Documents*.

CB
The Supplier* shall ensure that turn over activities within this Section 2.9 comply with requirements and/or recommendations of the IAEA Specific Safety Standards Series (e.g. Specific Safety Requirements No. SSR-2/2 (Rev. 1)) and relevant Safety Guide (e.g. IAEA Nuclear Energy Series No. NP-T-2.10) which describes in details provisions established and implemented to control and coordinate this transfer from construction to the Commissioning*.

CC
The Supplier* shall produce system boundaries mark-up P&ID, & Electrical single line diagrams for clarity of system division for turnover based on which the Supplier* will produce system turnover skyline plan by priorities and turnover dates. The Supplier* shall provide a written document with details of the document to be included for the turnover for both hard copy and electronic format which shall align to the Owner* expectation and plan.

2.10 LAND RECLAMATION

A
The Supplier* shall provide the Documents* for the Land Reclamation* works of the Construction Site* which shall comply with the requirements of the Rules*.

B
In order to prepare the Site* for the Technical Reclamation* works, all temporary underground and above-ground structures, equipment and facilities used by the Supplier* during construction, shall be demolished, dismantled and cleared off the Construction Site* (except for those which the Owner* decides to retain under Section 2.2.2 of the Scope of Supply Document*). All underground structures and facilities shall be demolished to the minimum depth of 1,4 m under the level of final ground shaping and in accordance with the approved Documents* for the Land Reclamation* works.

BA
The Supplier* shall perform Technical Reclamation* in such way allowing the Owner* to perform smoothly subsequent Biological Reclamation*.

C
The Supplier* shall repair the functional roads including the connection to the public road network into the functional condition. The renewal of road drainage system shall be also part of the restoration.

D
All waste shall be cleaned off and disposed by the Supplier* (see also the Scope of Supply Document*, Section 2.3.7.2). The Supplier* shall comply with the requirements of the Rules* specified in Technical Requirements Document*, Chapter 2.5.
For Soil management see the Scope of Supply Document*, Section 2.3.7.3.

E
The final ground shaping works shall be done to meet the landscape determined by the approved Documents* for the Land Reclamation* works.

F
After finalization of the Technical Reclamation* works, the Supplier* shall hand over the On Site Facility Area* back to the Owner*.

3 COMMISSIONING

3.1 GENERAL PRINCIPLES

A

Commissioning* has the objective of demonstrating that both the Plant* itself and the Units* including the First Core* as constructed meet the design requirements and the safety requirements as specified in the Design documentation, safety analysis report and in the license conditions. For the achievement of this objective and to ensure safe and reliable operation of the Plant* in the future, the Commissioning* process shall include activities for the following purposes:

- to verify that Structures, Systems and Components* fulfil the design criteria (incl. margins) and safety and performance objectives through the corresponding acceptance criteria;
- to collect baseline data for Structures, Systems and Components* for future reference;
- to validate those operating procedures and surveillance procedures for which the Commissioning* tests provide representative activities and conditions, and to validate, to the extent practicable, that the Plant*'s operating procedures, maintenance procedures, surveillance procedures and emergency procedures are adequate (requirements for validation of procedures is described in the Operation and Maintenance Document*, Section 3.1);
- to verify guaranteed parameters in compliance with the Terms and Conditions*, Chapter 15;
- to familiarize the Owner's* personnel with the operation of the Plant*.

B

The individual stages of each Unit* the Commissioning* are in compliance with the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended:

a. The Inactive Testing* - includes the complex verification of functional ability of nuclear installation and its final proof performed before the fuel loading into the reactor.

b. The Active Testing* - includes the tests performed from the start with initial fuel loading into the reactor, up to the completion of the Trial Operation*.

Stages of each Unit* Active Testing* further consists of:

1. The Physical Start-up*: the purpose is to verify physical properties, especially the neutron - physical characteristics of the Core*, and selected functions of other SSC, especially those that are dependent on the neutron - physical characteristics of the Core*. The initiation of the Physical Start-up* is the first handling of the Fuel Assembly* with the aim to loading it into the reactor.
2. The Power Start-up*: the purpose is to verify design characteristics of the Core* and other SSC at different power levels, design function of all systems also in the transient processes and operation stability in accordance with the approved programs. The Power Start-Up* also includes the Performance Test*, the Demonstration Run* including the Duration Test*, the certification tests, the Guarantee Test* and the Trial Operation*. The purpose of the Trial Operation* is to verify design parameters and the operation stability in accordance with the approved program of the Trial Operation*.

C

The Supplier* shall be responsible for preparation, realization and evaluation of all tests relating to the Commissioning* and their results up to the Provisional Takeover*.

D
The Commissioning* is performed so that each stage shall create the integral set of tests according to the Programs for Commissioning*. Completion of all tests and subsequent documentation proving the fulfilment of all specified acceptance criteria of the tests is one of the conditions for the transition to the next stage of the Commissioning*. The subsequent stage must not be started before the completion and fulfilment of stipulated conditions of the previous stage.

E
Moving from one stage to the next stage is not to be allowed until an evaluation of the Commissioning* test results has been carried out to ascertain that all the objectives and the Requirements of Authorities* have been fulfilled. The next stage of the Commissioning* shall not be initiated prior to obtaining authorization from the Owner* and the Authorities* to move to the next stage.

F
All Commissioning* activities shall be performed only according to approved Commissioning Documentation* as described in Section 3.2 of this Construction and Commissioning Document*. The Supplier* is responsible for ensuring that all facts, quantities, data or parameters important from the viewpoint of nuclear safety and radiation protection is recorded. The Supplier* shall commence recording at the beginning of the Commissioning*. The Supplier* shall comply with the Mandatory Law* and the Requirements of the Authorities*.

G
The Owner* shall have the right to access to all records and information made by the Supplier*, as well as tools and measuring devices related to the Commissioning*.

H
During the Commissioning* period, the Supplier* shall involve the Owner's* personnel at an early stage of the testing tasks, which will lead to competent and trained personnel. Therefore, the Supplier* shall allow the Owner's* personnel active participation in the operation activities of SSC during Commissioning* in accordance with Section 3.3.4 of this Construction and Commissioning Document*.

I
The Commissioning* activities shall be managed by the Supplier's* personnel up to the Provisional Takeover*. The Owner's* personnel shall work under the direction and responsibility of the Supplier*.

J
Supplier* is responsible for the maintenance and decontamination (if required) of the Plant* and/or Unit* SSC during the Commissioning* up to the Provisional Takeover* as described in the Operation and Maintenance Document*, Section 3.1. The Supplier* shall maintain all records, including, but not limited to, Commissioning* tests, functional data, operational and maintenance records and other records important for point view of nuclear safety, and records important for maintenance and life management of the Plant*. All these information and records shall be submitted by the Supplier* to the Owner* before the Provisional Takeover*.

K
The Supplier* shall be responsible for the developing and application of FME program during the Commissioning* up to the Provisional Takeover*.

L
The language of commissioning document used during the various stages of commissioning follows Part I, Terms and Conditions, Section 4.2.1.

M
The Supplier* shall define the treatment to avoid corrosion and system lay-up requirements during the Commissioning* in accordance with Section 2.8.2.8 of this Construction and Commissioning Document*.

N
During the Commissioning* period Documents* for operation and maintenance are validated in accordance with Chapter 3.1 of the Operation and Maintenance Document*.

O
The Supplier* shall comply with the requirements of the Rules*, specified in Technical Requirements Document*, Chapter 2.5.

3.2 COMMISSIONING DOCUMENTATION

3.2.1 COMMISSIONING DOCUMENTATION

A
The Commissioning Documentation* shall comprise all organization and management documents, the commissioning programs and procedures and the reporting documentation needed for Commissioning* and/or required in this Construction and Commissioning Document*.
As a part of the preliminary version of the Commissioning Documentation* the Supplier* shall provide list of all testing and administrative procedures including schedule of their progressive development and issue.

B
The Supplier* shall prepare and submit for approval to the Owner* the comprehensive Commissioning* plan covering and integrating all the Commissioning* stages and indicating the interfaces with the Owner's Scope of Supply* (as described in the Scope of Supply Document*). The detailed Commissioning Programs shall be prepared by the Supplier* and provided to the Owner* for approval in accordance with the Construction and Commissioning Document*, Section 3.2.3.

C
The Commissioning Programs for the Plant* and/or Unit* shall contain all tests (link to testing procedure) which are necessary for the complete demonstration of safety, reliability and performance of the Plant* and/or Unit* and shall also contain such other tests as may be required by the Authorities*.

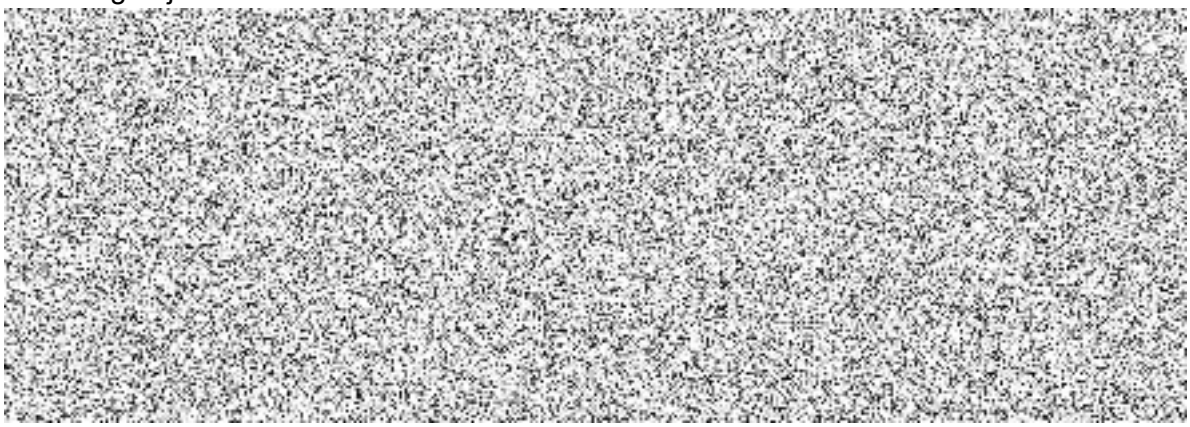
For more information about Test Procedures see Section 3.2.3 of this Construction and Commissioning Document*.

D
The Commissioning Programs for the Plat* and*or Unit* (consists of program for the Inactive Testing* and programs for each stage of the Active Testing*) shall cover all the activities to be

performed on Structures, Systems and Components* needed to bring them to an operational mode. The Supplier* shall comply with the requirements of the Rules* specified in Technical Requirements Document*, Chapter 2.5, namely Czech Atomic Act* and Decree No. 21/2017 Coll., as amended.

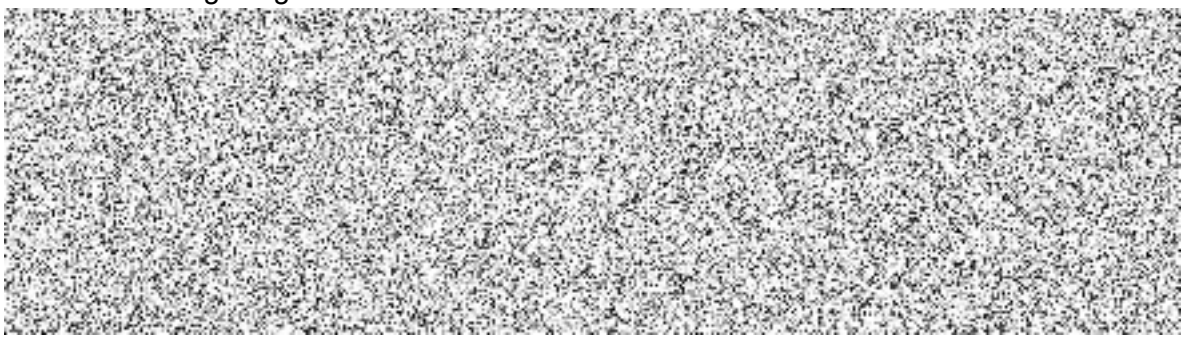
E

The Commissioning Programs for the Plant* and/or Unit* shall be structured in such a way that the following objectives are met:



F

The Commissioning Programs for the Plant* and/or Unit* shall also include:



G

The Supplier* shall ensure that the Commissioning Documentation* complies with the requirements of the Mandatory Law* and the Requirements of the Authorities* (According Rules* as described in the Technical Requirements Document*, Chapter 2.5).

H

The Supplier* shall provide the Commissioning Documentation* based on the completed design documentation and presented in a form that can be maintained, updated and used over the lifetime of the Plant*. Commissioning Documentation* shall cover the full range of Plant* and/or Unit* conditions required in the design and the safety case. The results shall demonstrate that the behaviour of the Plant* and/or Unit* as built is in compliance with the design assumptions and the license conditions.

3.2.2 COMMISSIONING MANUAL

A

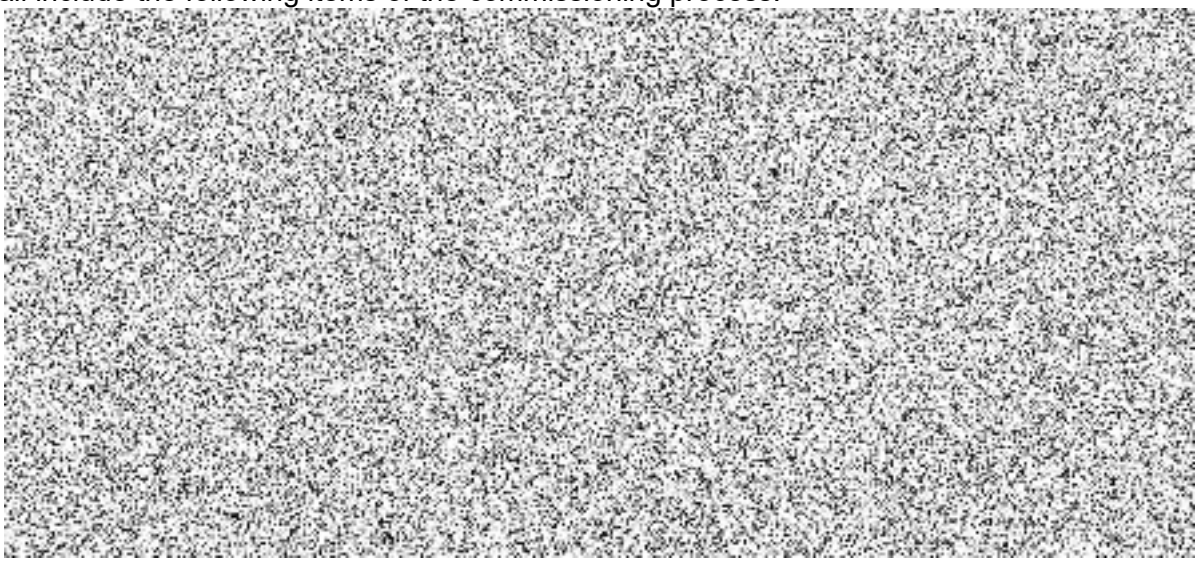
The Supplier* shall prepare and submit for approval to the Owner* the Commissioning Manual for the Plant* and/or Unit*, or a similar document that sets out the management organization

and the documentation processes, which shall form part of the Commissioning Documentation*. The Commissioning Manual shall define the management structure for Commissioning*, to enable Commissioning* activities to be logically planned and safely executed in compliance with the Rules*, especially the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended.

B
The purpose of the Commissioning Manual is to clearly specify the organizational structure and responsibilities of individuals and groups for the management and control of testing and Commissioning*, to meet the requirements for quality, established requirements, statutory obligations and the license provisions. The Commissioning Manual shall specify the extent and nature of, and the approval process for, the documentation, including procedures and certificates to be used during Commissioning*.

C
The Commissioning Manual shall provide the basis for the planning and execution of the testing of SSC, as a coordinated activity between the Owner* and Supplier*.

D
The Commissioning Manual, referring, as appropriate, to the Project* management system, shall include the following items of the commissioning process:



E
The organization structure, administrative procedures and management for Commissioning* shall ensure that:

3.2.3 COMMISSIONING PROGRAMS AND PROCEDURES

A
The Supplier* is responsible for developing all the Plant* and/or Unit* Commissioning Programs and Procedures for individual Commissioning* tests, Commissioning Programs

for individual stages of Commissioning* and administrative procedures to be applied during the course of the Commissioning*; defining the interfaces with the Owner's Scope of Supply* (as described in the Scope of Supply Document*) and including definition of applicability (time, particular test, process, stage of the Commissioning*) of each individual procedure in compliance with requirements of the Rules*, especially the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended.

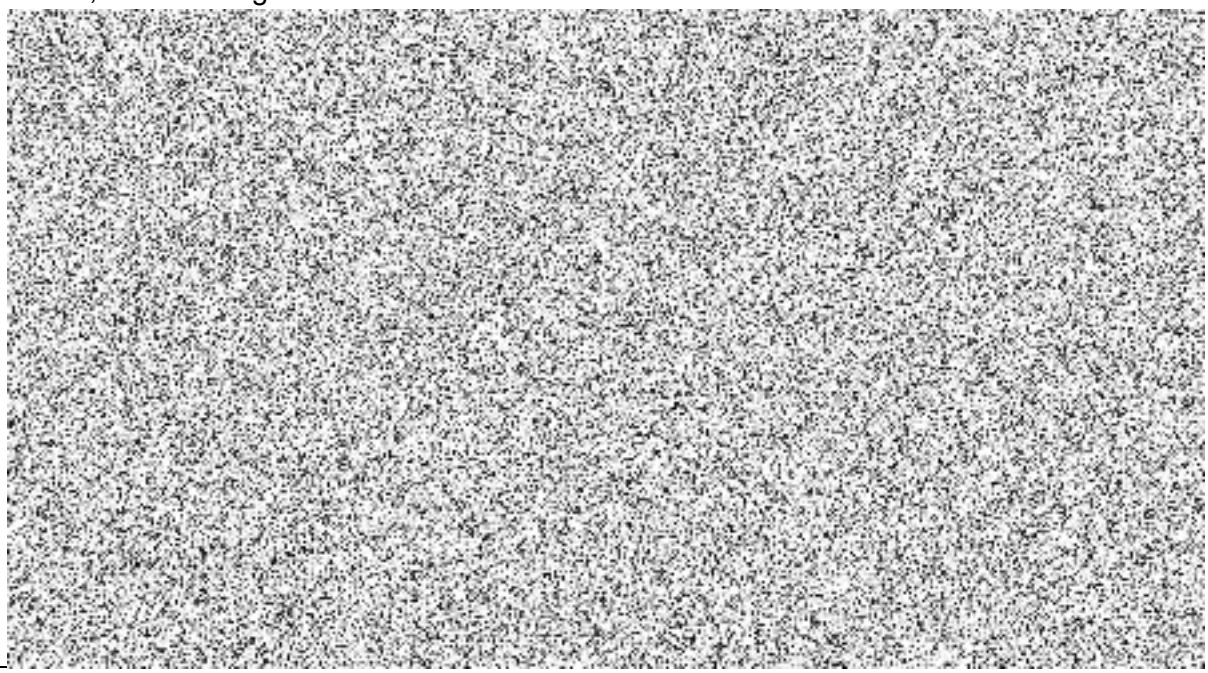
AA
The Supplier* shall submit a detail lock out and tag procedure to the Owner* for approval which shall also include plan for training of the Site* personnel including construction labour who still are active on Site*.

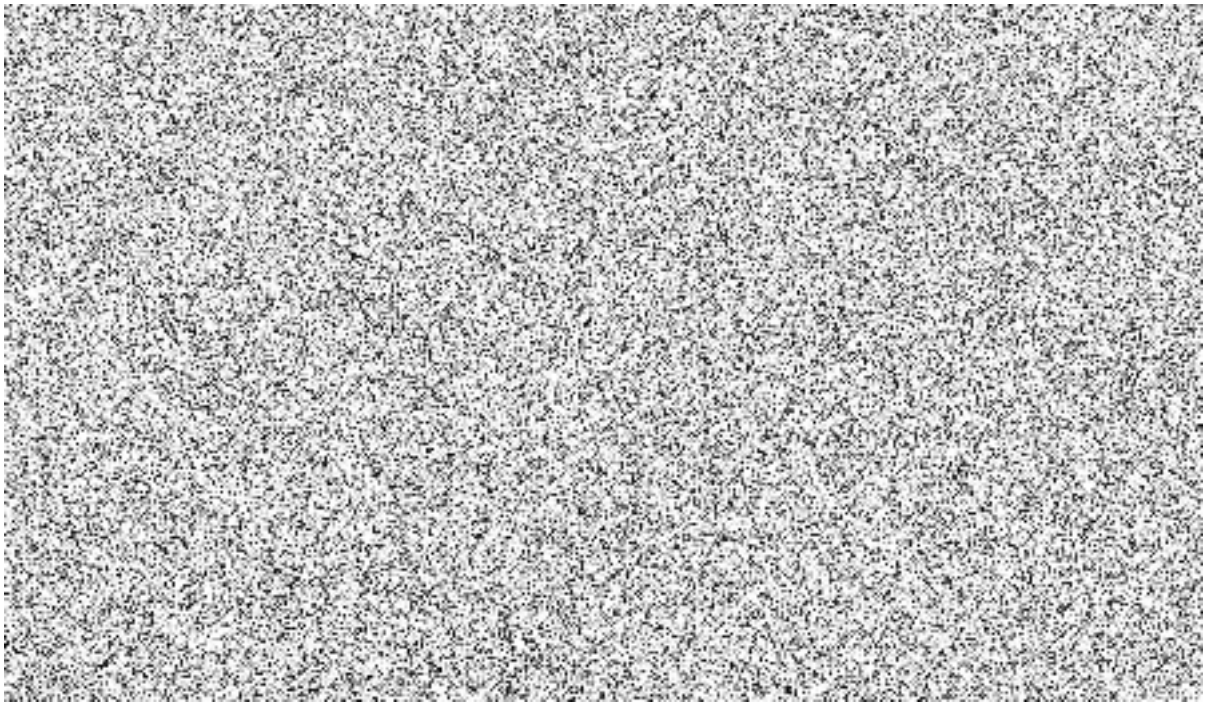
B
All the Commissioning* tests shall be performed as per approved step-by-step written Test Procedures for the Plant* and/or Unit*. The preparation of Test Procedures, including their verification and approval, shall be defined by an administrative procedure which shall be provided to the Owner* for approval. The level of review shall reflect the importance to safety of the system and the nature of the test.

C
The Test Procedures and administrative procedures for the Plat* and/or Unit* shall be subject to a thorough verification and approval process with participation of the Owner* and the Authorities* (as required) to ensure their technical accuracy and shall be validated to ensure their usability with the installed equipment and control systems.

D
The Test Procedures for the Plant* and/or Unit* shall follow the normal operational procedures to the extent as practicable. If necessary, the normal operational procedures shall be amended for use during the Commissioning*.

E
The contents of Test Procedures for the Plant* and/or Unit* shall include, but shall not be limited to, the following:





F
The Supplier* shall confirm to the Owner* the completeness of the final versions of Commissioning Programs and Test Procedures for the Plant* and/or Unit* for each stage of Commissioning* (see Article 14.1.15 of the Terms and Conditions*) in compliance with requirements of the Rules*, especially the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended.

G
The Commissioning Programs for the Plant* and/or Unit* shall assign the personnel responsibilities for safety to individual roles or participants defined in the Commissioning Programs as needed, in accordance with the Licensing and Permitting, Safety and Quality Document*, Chapter 2 and the Terms and Conditions *, Article 14.1.6.

3.2.4 COMMISSIONING TIME SCHEDULE

A
The Supplier* shall prepare the Commissioning Time Schedule for the Plant* and/or Unit* in accordance with the Project Management Document*, Section 2.6.5.

B
The Commissioning Time Schedule for the Plant* and/or Unit* shall include the basic sequences of the main Commissioning* stages, phases, tests and Commissioning* activities, taking into consideration the requirements of the Terms and Conditions* and specifically those related to the provisions related to permitting and licensing (for more details see Sections 3.4, 3.5, 3.6, 3.7 of this Construction and Commissioning Document* and the Project Management Document*, Section 2.6.8.4).

C
In order to inform the Owner* about progress of the Commissioning* Works*, the Supplier* shall periodically update the Commissioning Time Schedule in accordance with the real time progress and requirements of the Project Management Document*, Section 2.6.9.

3.2.5 REVIEW AND APPROVAL OF COMMISSIONING DOCUMENTATION

A

Commissioning Documentation* shall be approved by the Owner*, as described in the Project Management Document*, Attachment 3.

B

The Supplier* shall be aware that some part of the Commissioning Documentation* are requested for approval by the Authorities* (see the requirements of the Rules* specified in Technical Requirements Document*, Chapter 2.5. namely the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended.). The Supplier* shall consider the time period legally defined for the Authorities* review and/or approval in its schedule.

C

The Supplier* shall provide support during dealing of the Test Procedures with the Authorities*. The Supplier* shall modify the Test Procedures according to the Owner's* and/or the Authorities* comments. The Supplier* can start the tests after obtaining the Owner's * approval.

3.2.6 REVIEW OF TEST RESULTS, TEST REPORTS, STAGE REPORTS, CERTIFICATES, FINAL COMMISSIONING DOSSIER

A

Test results shall be reviewed by the Supplier* to provide assurances that the testing performed demonstrates that the performance of the systems tested is in accordance with the Plant* and Unit* design and that any operating constraints have been identified. It shall ensure that all necessary data have been obtained and analysed, and that a technical evaluation and report have been completed. The evaluation of the test results shall include a comparison with the acceptance criteria.

B

A test certificate/protocol including test results shall be developed by the Supplier* to certify that the test has been completed in accordance with the procedures approved by the Owner*, or, if otherwise, it shall state all deviations from these procedures.

C

The Supplier* shall provide the Owner* with documentation that contains list of all tests including results executed in each stage completed in accordance with associated Commissioning Programs and Procedures for the Plant* and/or Unit* before proceeding to the next stage. This documentation also includes but is not limited to test evaluation reports, protocols, equipment readiness reports as required by the Mandatory Law* namely the Czech Atomic Act* and Decree No. 21/2017 Coll., as amended. If requested by the Owner* the Supplier* shall present required documentation to the Authorities*.

D

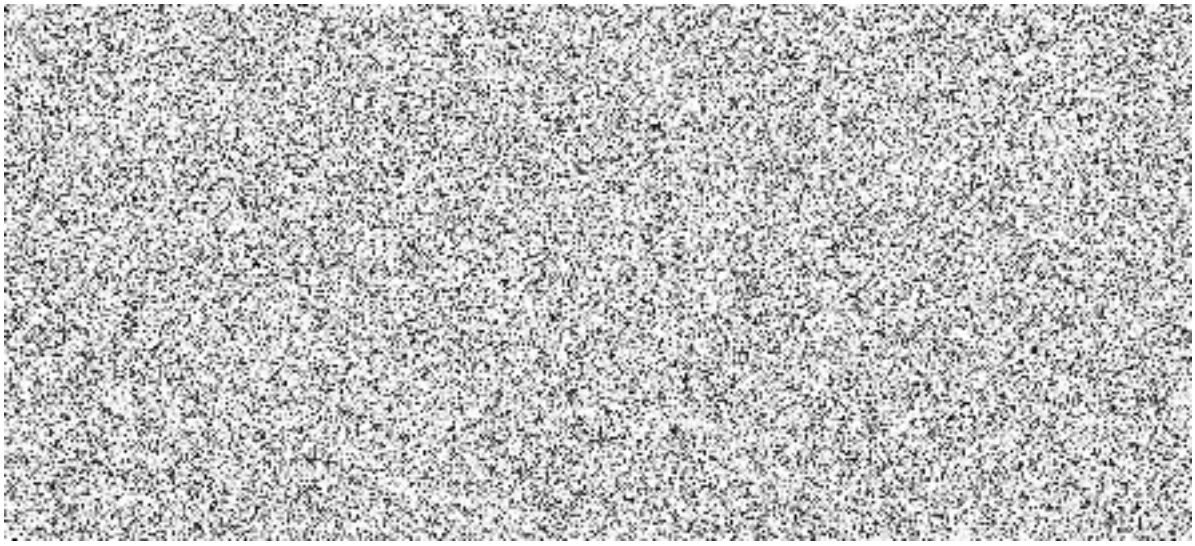
The tests certificates/protocols shall be subject to the Owner's* approval as a condition to conduct further tests defined in Commissioning Program for the Plant* and/or Unit*. Where required, the Owner* shall obtain approvals of tests certificates/protocols from the Authorities*.

E

The Supplier* shall develop the Readiness report/protocol which summarizes test activities results from previous Commissioning* stages (provided to the Owner* as a part of Commissioning Dossier for the Plant* and/or Unit* - see item F of this Section here below) and declares fulfilment of prerequisites for the next Commissioning* stage. This Readiness

report/protocol shall be approved by the Owner* and the Authorities* (if required) and it is a prerequisite for transition to the next Commissioning* stage.

F
The Commissioning Dossier for the Plant* and/or Unit* shall comprise:



G
All Documents* forming Commissioning Dossier for the Plant* and/or Unit* shall be progressively handed over to the Owner* during the Commissioning* and shall be duly approved (where applicable) by the Owner*. Commissioning Dossier for the Plant* and/or Unit* forms a part of accompanying technical documentation (see the Project Management Document*, Attachment 3, Section 1.3.9)

After completing the testing of the Plant* and prior to each relevant Unit Provisional Takeover*, the Supplier* shall confirm in writing to the Owner* provision of all Documents* forming part of the Commissioning Dossier, including their list and evidence of their provision to the Owner* (i.e. the Final Commissioning Dossier for the Plant* and/or Unit*).

H
The Supplier* shall maintain and make available at the Site* all Documents* forming part of the Commissioning Dossier for the Plant* and/or Unit* and the Owner* shall have an access during the Commissioning* to all Documents* of the Commissioning Dossier for the Plant* and/or Unit* created by the Supplier* or its Subcontractors*.

3.2.7 PUNCH LIST

A
The Supplier* shall work out and maintain the Punch List* for the Plant* and/or Unit* established at the transfer from construction to Commissioning* (see Section 2.9 of this Construction and Commissioning Document*) and shall provide it as a part of Commissioning Dossier for the Plant* and/or Unit* for the Owner* at the end of each Commissioning* stage.

AA
The supplier shall establish a procedure for joint errands with the Owner* in order to streamline the process of creating a Punch List*.

3.3 PLANNING AND ORGANIZATION OF COMMISSIONING

3.3.1 SUPPLIER'S COMMISSIONING PERSONNEL

A

The Supplier* shall be responsible for the Commissioning* organization as regards availability and structuring of human and material resources for the successful outcome of this phase of the Project* (in accordance with Project Management Document*, Chapter 2).

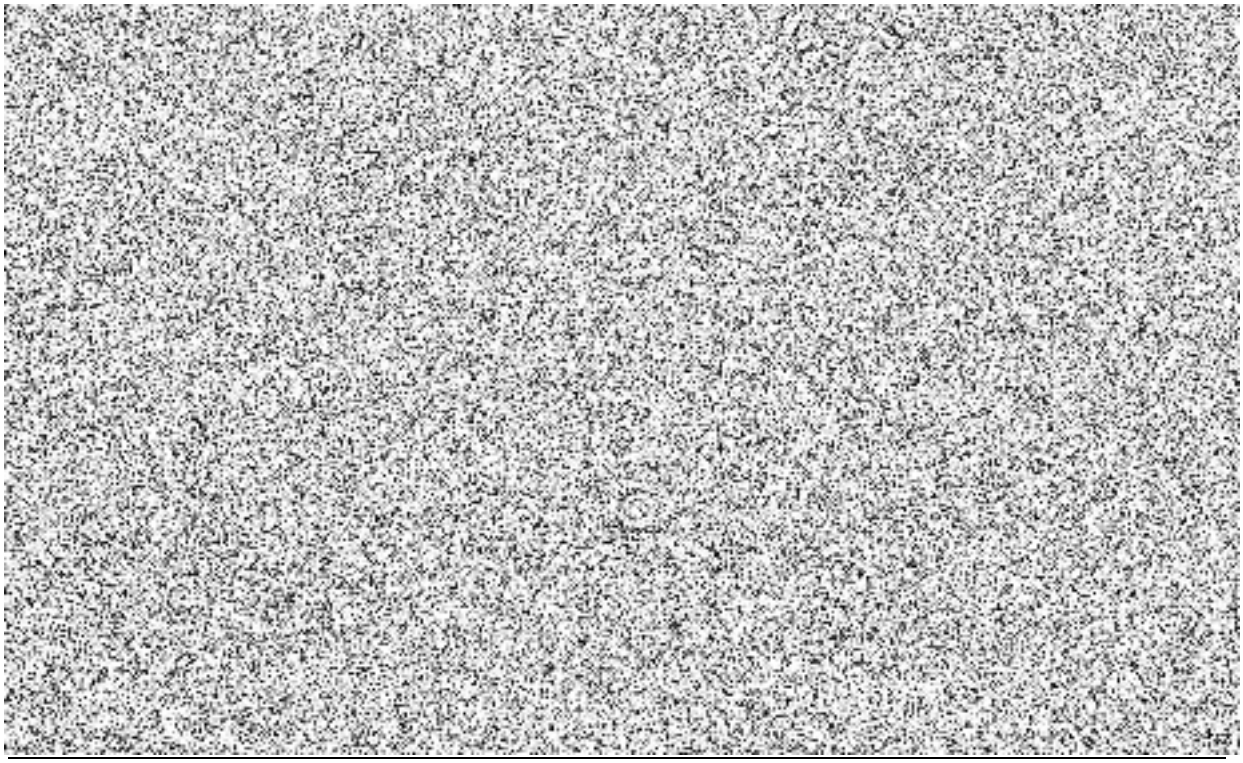
AA

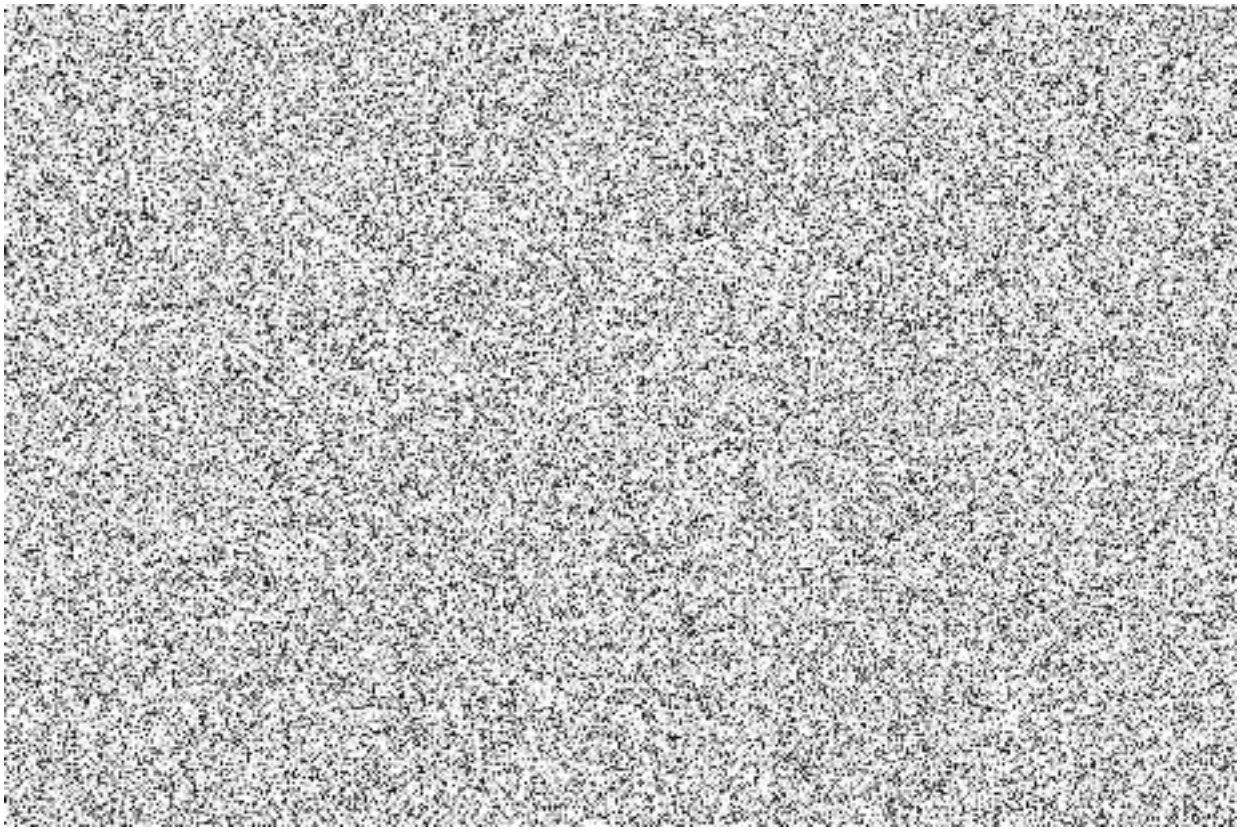
The Supplier* shall ensure appropriate personnel for the Commissioning* stage of the Project* based upon the turnover package transfer from construction to the Commissioning* (see Section 2.9 of this Construction and Commissioning Document*).
The Supplier* shall include the support required from the Owner's* staff to participate in the Commissioning* activities. As a part of the Commissioning Time Schedule for the Plant* and/or Unit* (see Section 3.2.4 of this Construction and Commissioning Document*), the Supplier* shall specify the number of Owner's* personnel required to participate in accordance with requirements in Operation and Maintenance Document*, Section 1.1.

B

The key posts described in the organization chart shall include the leaderships in each discipline (for NI, PGP, BOP and Support Facilities*) and for each Commissioning* stage.
All personnel proposed by the Supplier* for management of testing and the Commissioning* activities shall have the necessary and proven training and experience in the Commissioning* of this type of facilities, and their curriculum vitae shall be sent to the Owner*.
The Supplier* shall prove compliance of the training of these personnel with Mandatory Law*, Requirements of the Authorities* and recommendations of IAEA documents NG-T-2.2, NS-G-2.8 and TRS-380, with good practices in WANO, INPO, WENRA documents and Rules* as described in the Technical Requirements Document*, Chapter 2.5.

3.3.2 OPERATION OF SSC DURING PARTICULAR STAGES OF COMMISSIONING

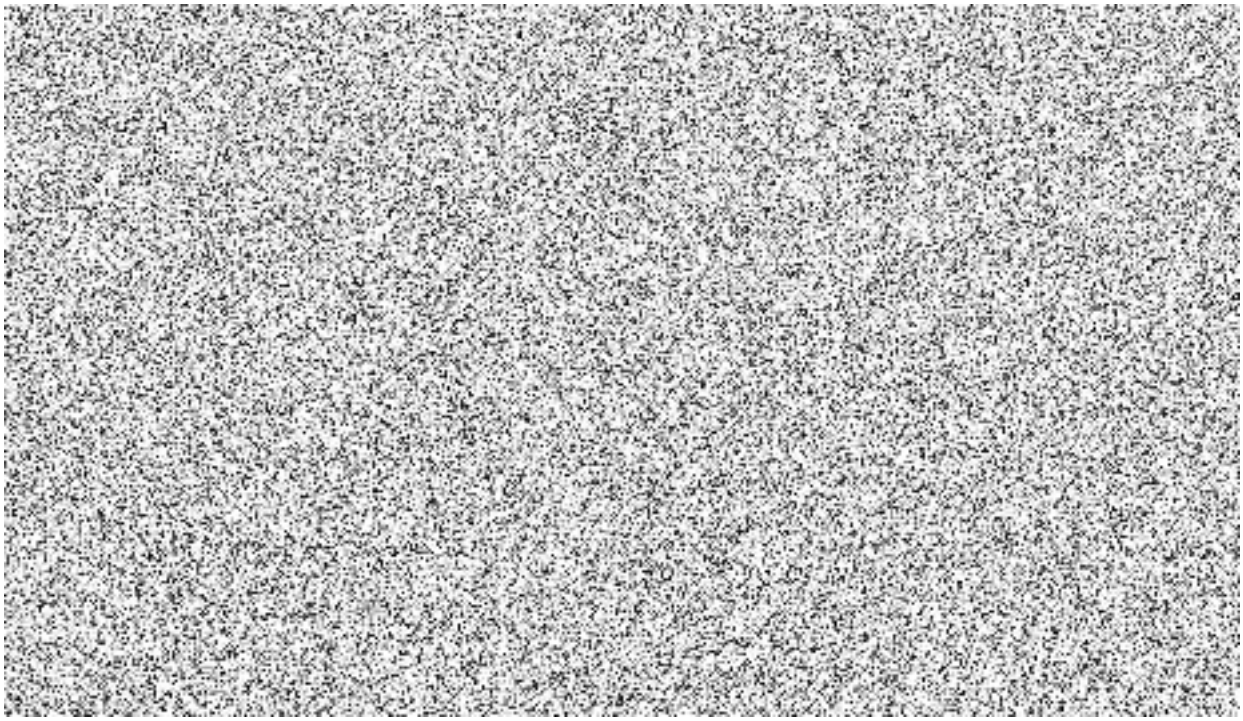




3.3.3 SUPPLIER'S COMMISSIONING ORGANIZATION RIGHTS AND RESPONSIBILITIES

A

From the start of Commissioning* up to the Provisional Takeover* of the Plant* and/or Unit* the Supplier* shall be responsible for:



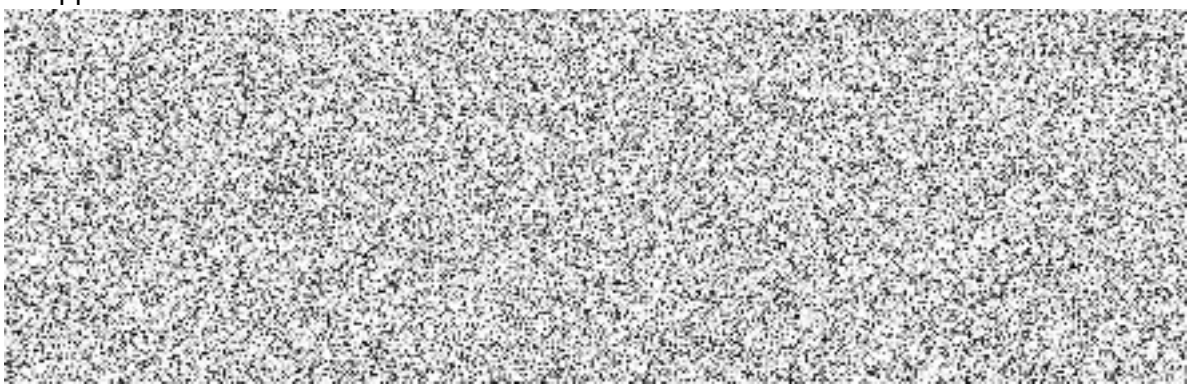
3.3.4 ROLE OF THE OWNER

A

From the beginning of the Commissioning* the Owner's* personnel shall be involved by the Supplier* in the activities associated with the Commissioning*. The scope of involvement shall be agreed between the Parties*.

B

The Supplier* shall enable:



C

The Supplier* shall establish such condition, that from the Nuclear Fuel* delivery to the Site*, all operation and monitoring activities related to the Nuclear Fuel* handling and storage and related to the management of concerned areas and systems shall be performed by the Owner* according to the operational procedures, Supplier's* instructions and under the Supplier's* supervision.

CA

However Supplier's* obligations related to the Nuclear Fuel* handling at the Site* such as the Technical Assistance* are defined in the Nuclear Fuel Contract*, Chapter 2.

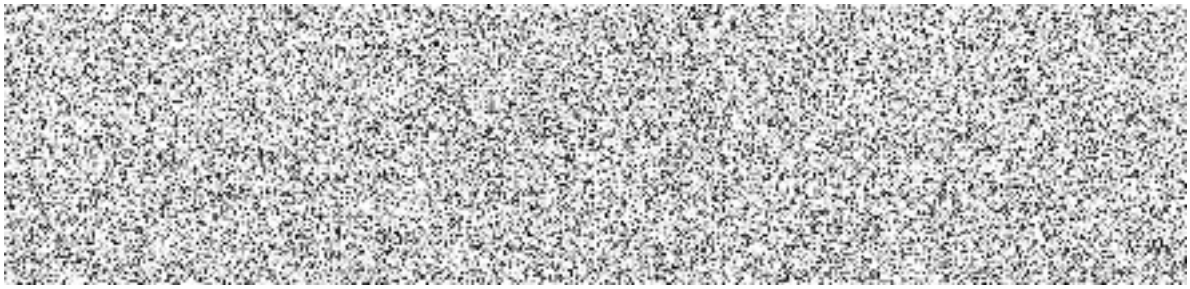
D

The detailed rules for responsibility of the Owner* and Supplier* shall be described in the Commissioning Manual and relevant Commissioning Documentation* for the Plant* and/or Unit*.

3.3.5 SCHEDULING AND FOLLOW-UP

A

The Supplier* is responsible for Commissioning* control and management in accordance with the Project Management Document*, Chapter 2.18, including, but not limited to, the provision and updating of following Documents*or information:



B
These documents shall cover all parts (also parts of Owner's Scope of Supply*) of the Plant* and/or Unit*, grouped by disciplines, Mechanical Systems, Electrical Systems, I&C Systems, Auxiliary Systems and Equipment.

C
The Owner's* personnel shall have unlimited access to any part of the Construction Site* at all times and witness and observe all test activities performed by the Supplier* or Subcontractor*, with no prior notice to the Supplier*, in accordance with the requirements provided under Section 6.2 of the Terms and Conditions*.

CA
The Supplier* shall conduct all tests in accordance with schedules provided to the Owner* and shall without undue delay notify the Owner* using adequate communications means agreed with the Owner* about any deviation from scheduled works.

D
The Supplier* shall provide a suitable reporting system (e.g. in the percent activities completion, if appropriate) to provide an accurate status and completion of the overall SSC Commissioning* and inform the Owner* periodically and in detail about the progress of the Commissioning* Works* in the form of the Project* progress reports (monthly Project* progress report and weekly Site* Progress Report). The Supplier* shall allow the Owner* to verify the content of each progress report in accordance with the Project Management Document* and the Project Organization and Management Manual* (see the Project Management Document*, Section 3.7).

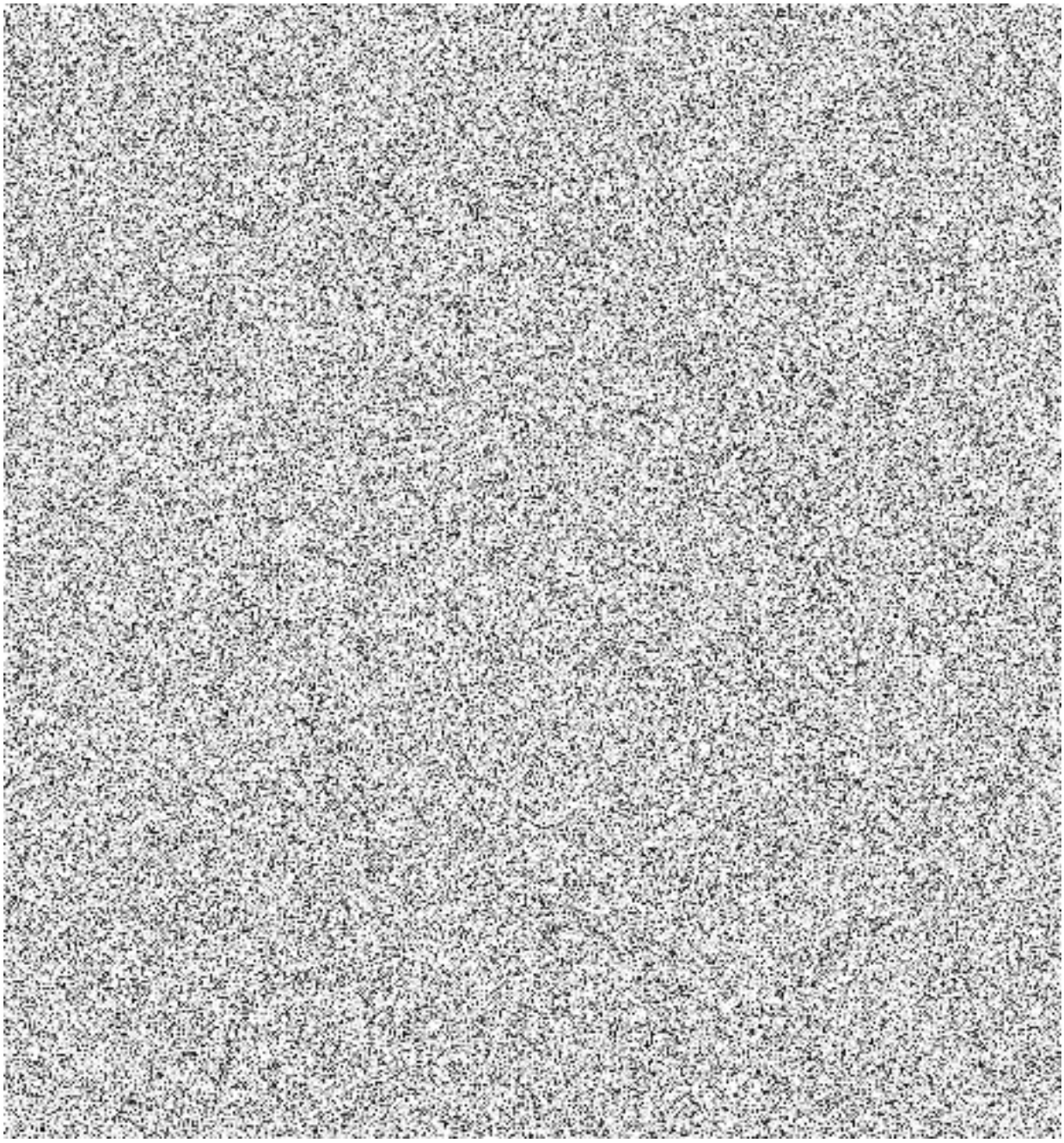
3.4 PRE-COMMISSIONING TEST (INDIVIDUAL TESTING)

A
The Supplier* shall perform all construction tests and Inspections* to demonstrate that each Unit* and the Plant* SSC are correctly installed and operational. The requirements are described in Section 2.8.2 of this Construction and Commissioning Document*. The part of these tests requiring specific technical condition and partial operability of the associated system shall be carried out during the Commissioning*. These tests are described in the following Sections of this Construction and Commissioning Document*.

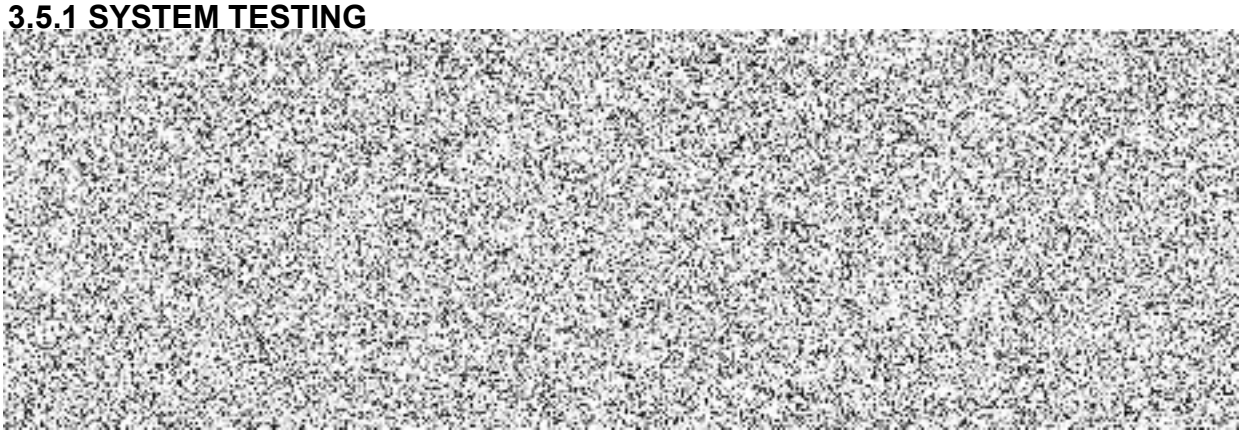
3.5 INACTIVE TESTING

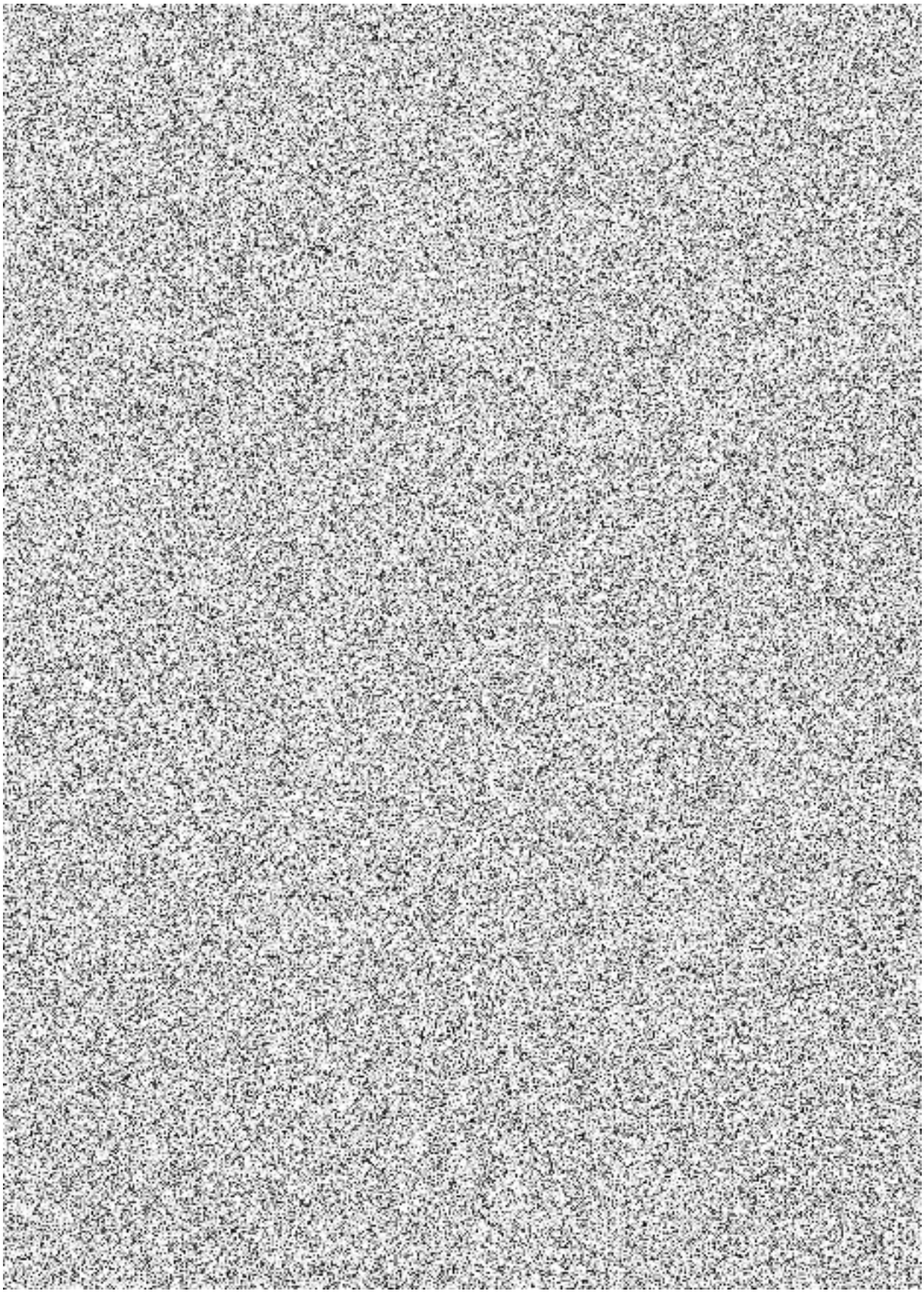
The Inactive Testing* period is the first stage of the Commissioning*; the functional tests are performed during this period.

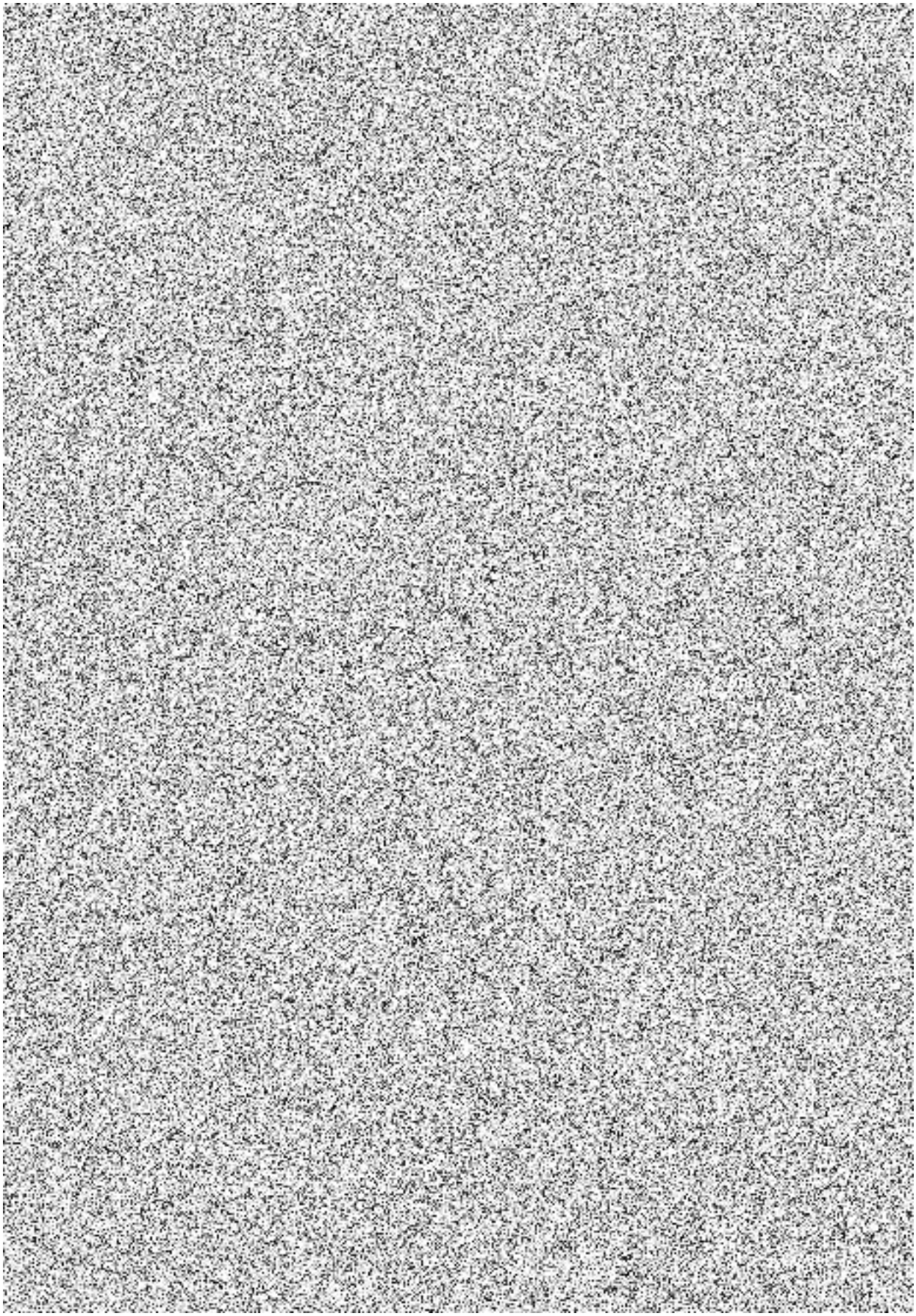
The functional tests are those tests normally conducted prior to the Nuclear Fuel* loading into the reactor to demonstrate the capability of each Unit* systems to meet design requirements. Next step of the Commissioning* is the Active Testing*.

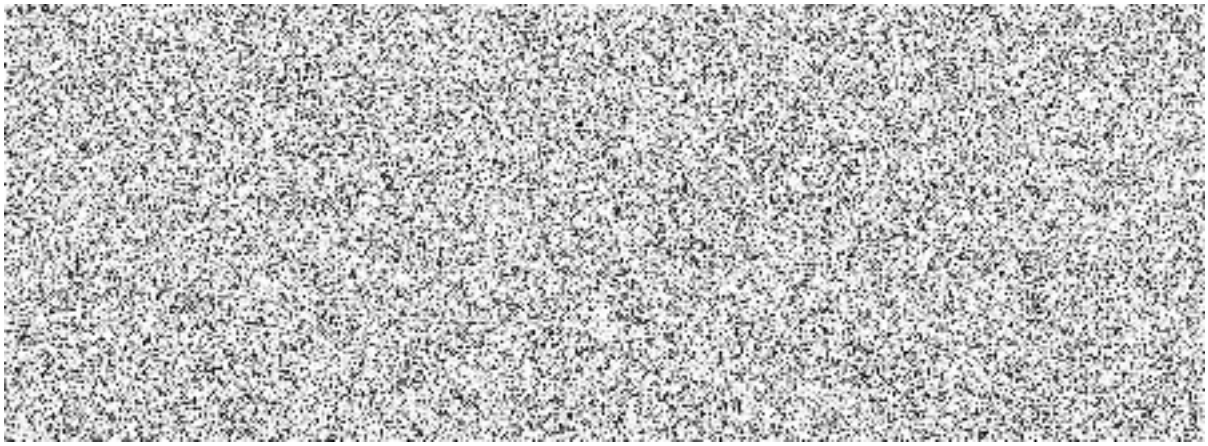


3.5.1 SYSTEM TESTING









3.5.5 INSPECTION AFTER HOT FUNCTIONAL TESTS

A

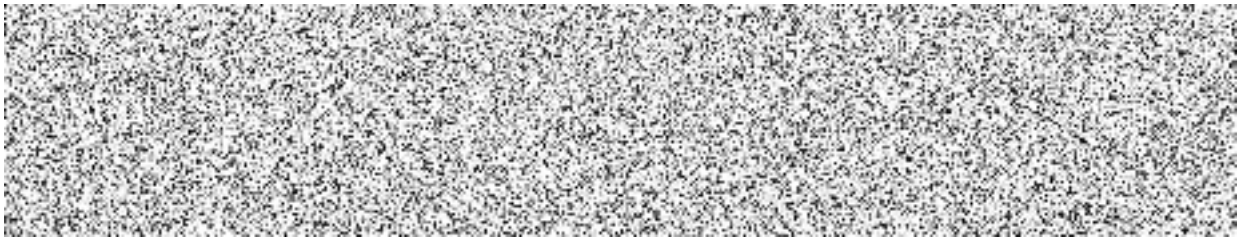
After Hot functional tests the Supplier* shall organize the overall Inspection* of the reactor, RCS and other systems in order to verify the status of the each Unit* systems according to the specific Inspection* procedure.

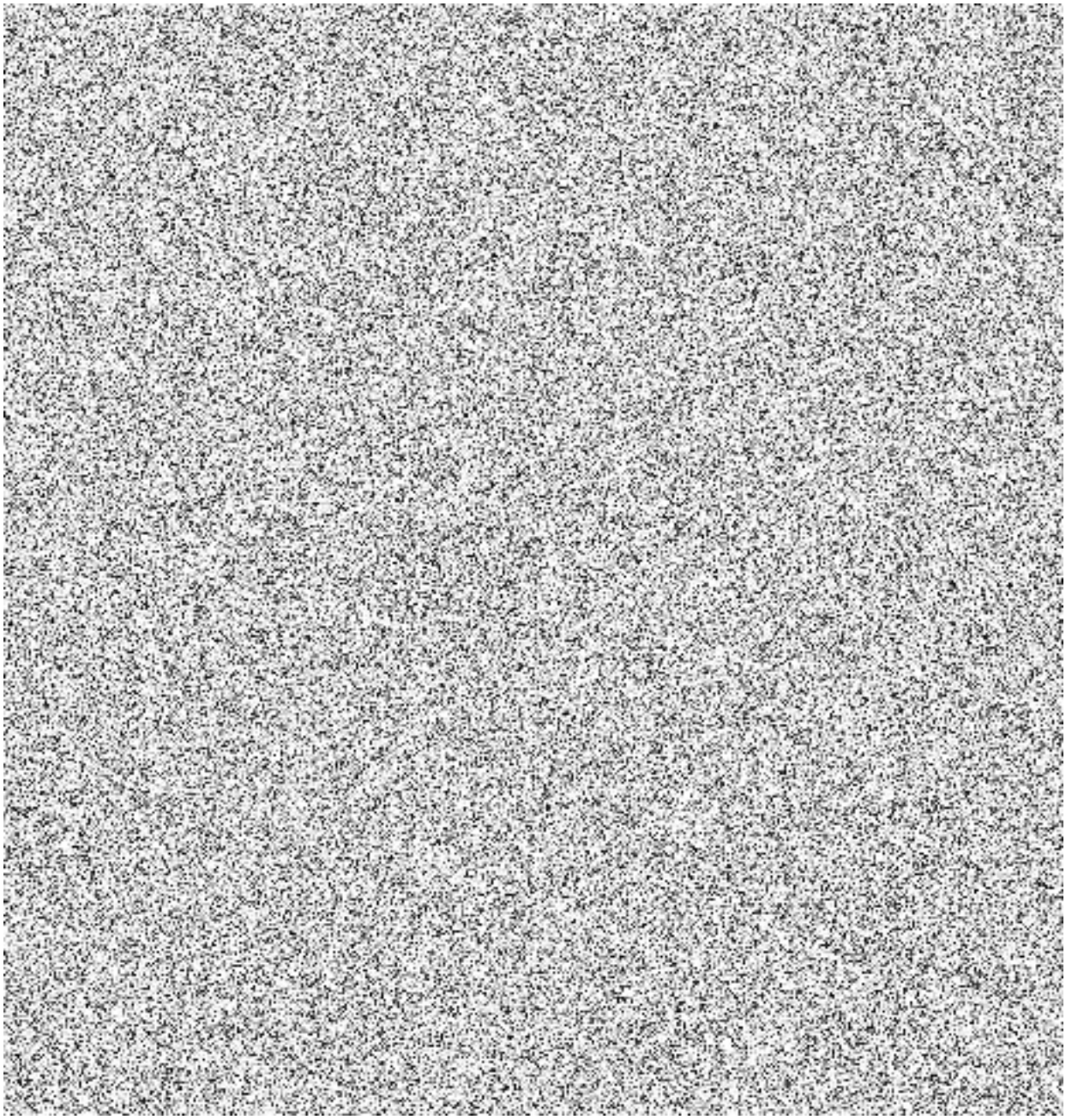
B

After Hot functional tests the Supplier* shall perform the Unit* complex cyber security test including test of Security Operations Centre (SOC) to verify that all I&C equipment complies with the established criteria. The procedure of the cyber security test and the results shall be documented (see the Technical Requirements Document*, Section 2.10.7.1, 2.10.7.2 and 4.7.17).

3.5.6 NUCLEAR FUEL RECEIPT

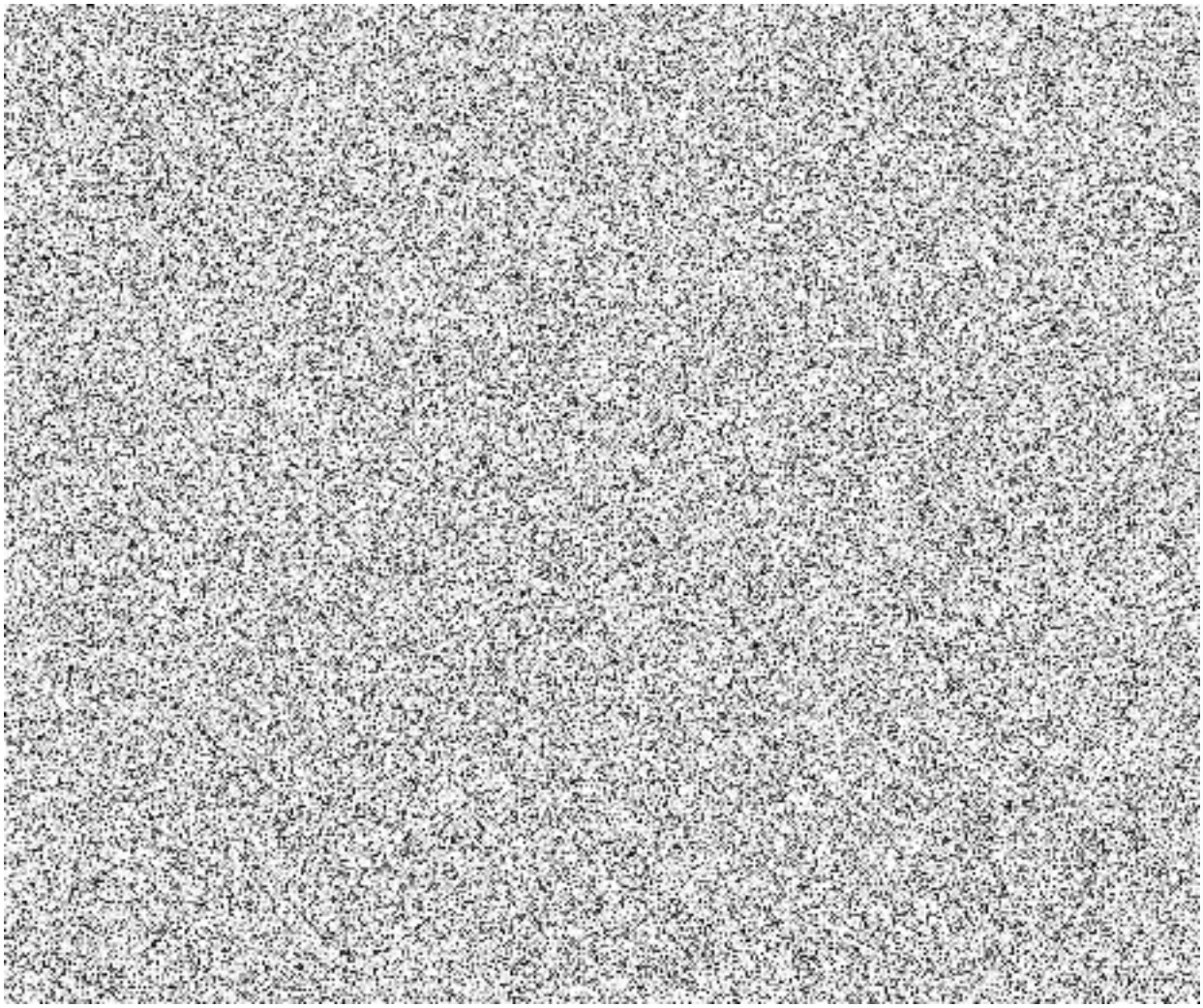
3.6 ACTIVE TESTING



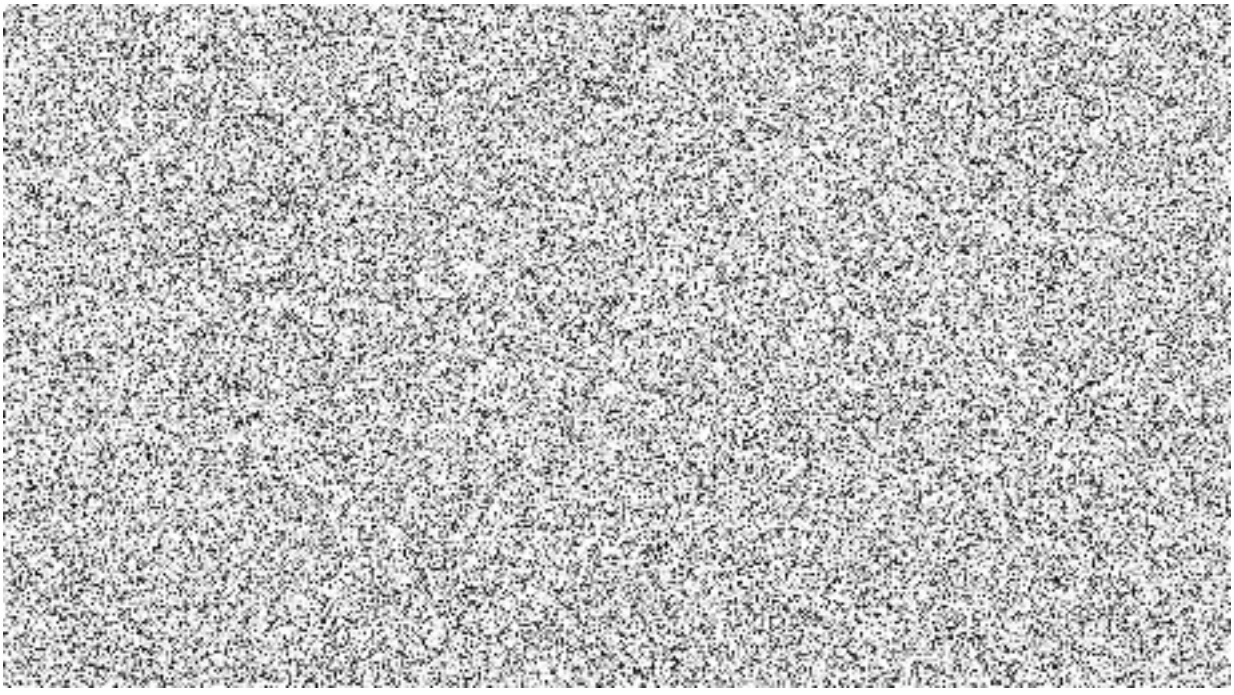


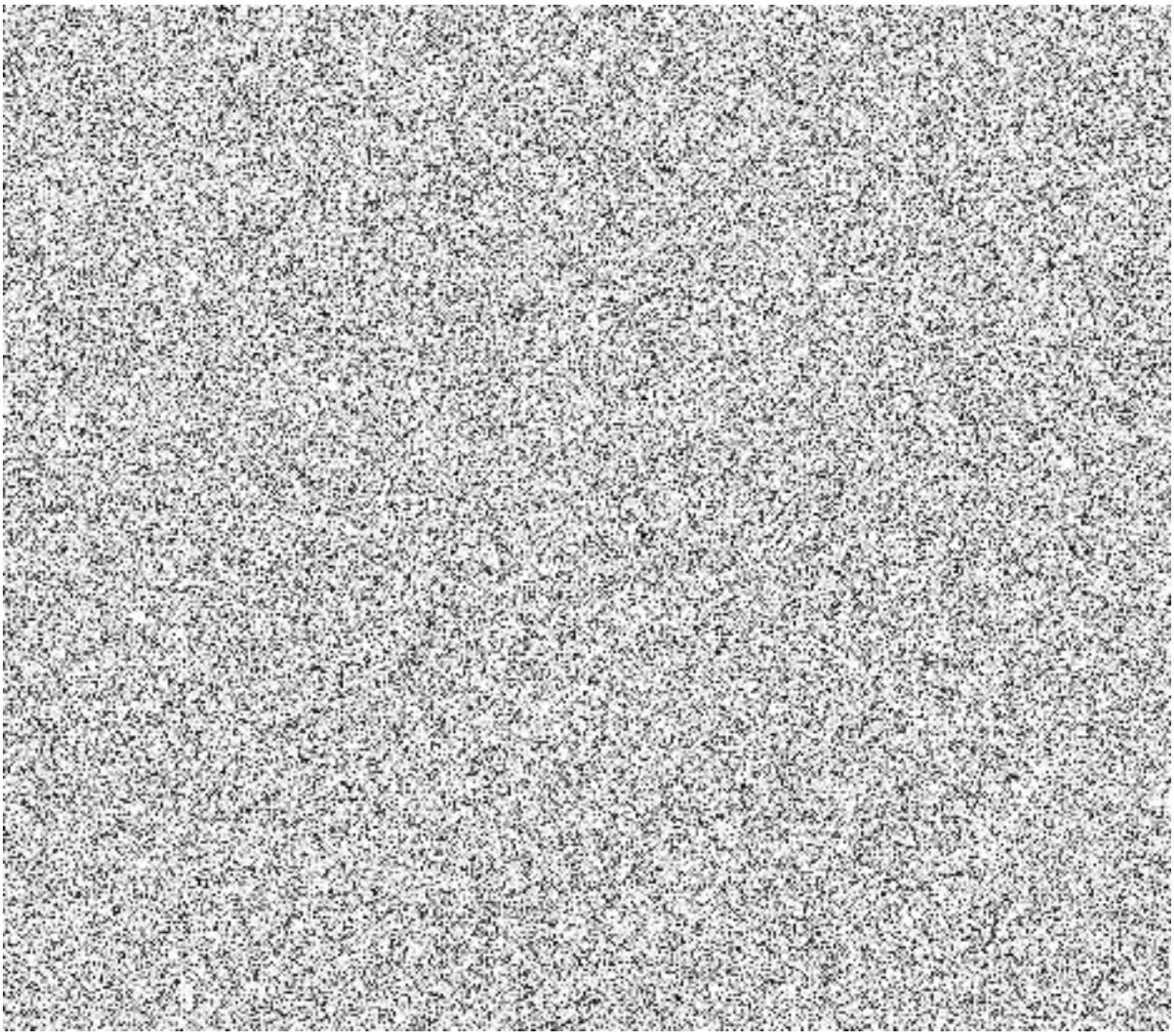
3.6.1 PHYSICAL START-UP

3.6.1.1 FUEL LOADING AND PRE-CRITICALITY TESTING



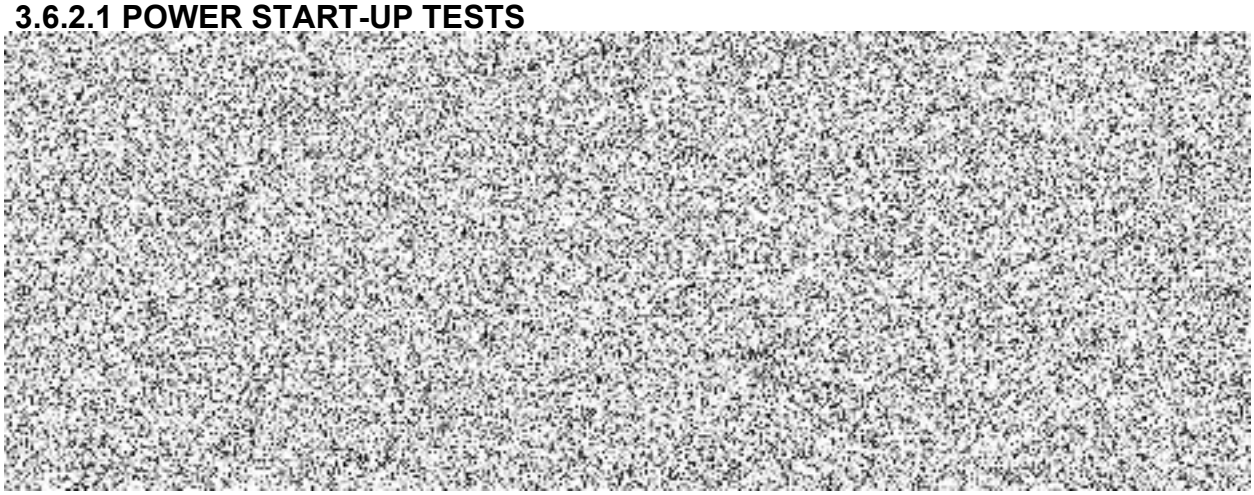
3.6.1.2 INITIAL CRITICALITY AND LOW POWER TEST

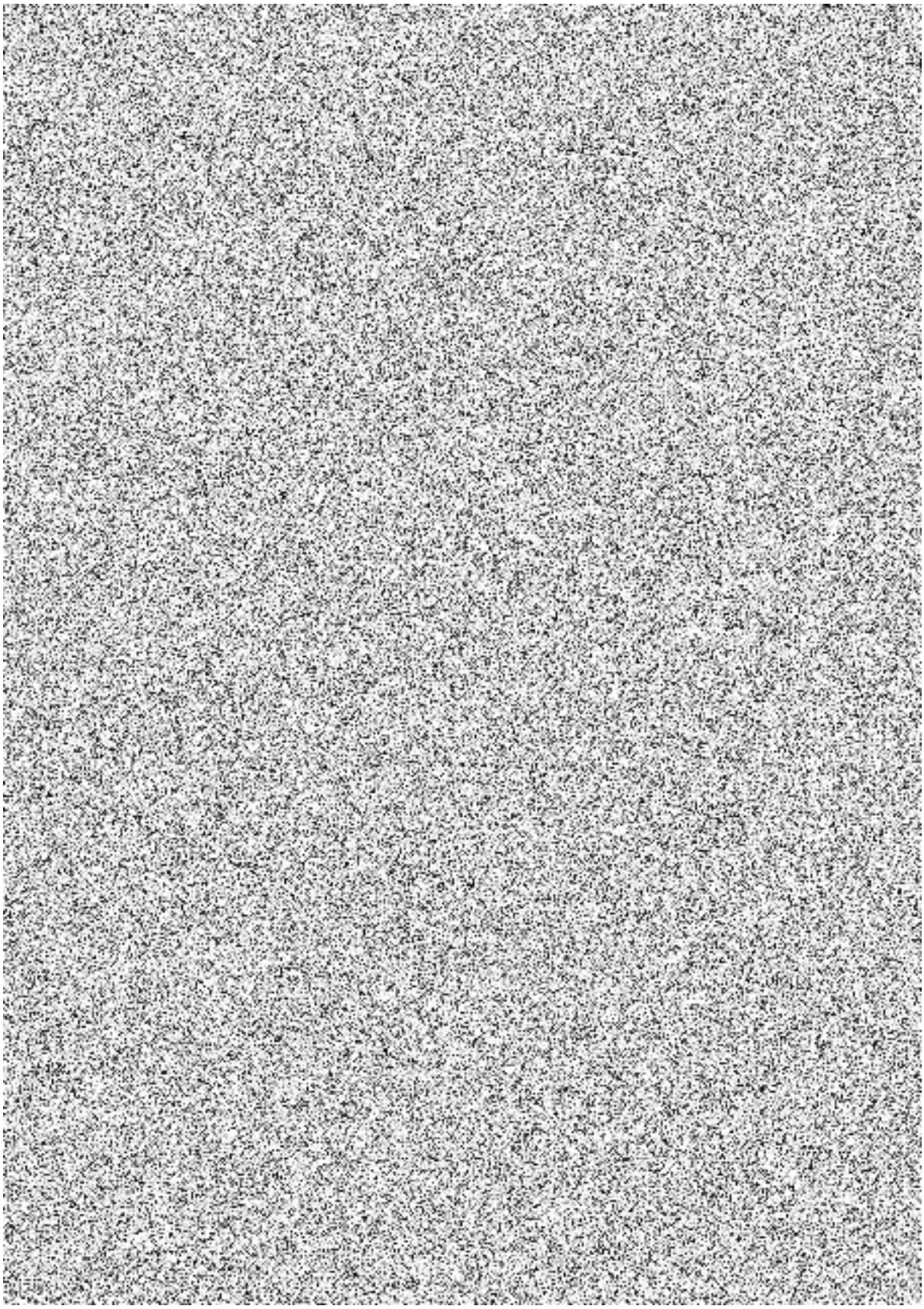


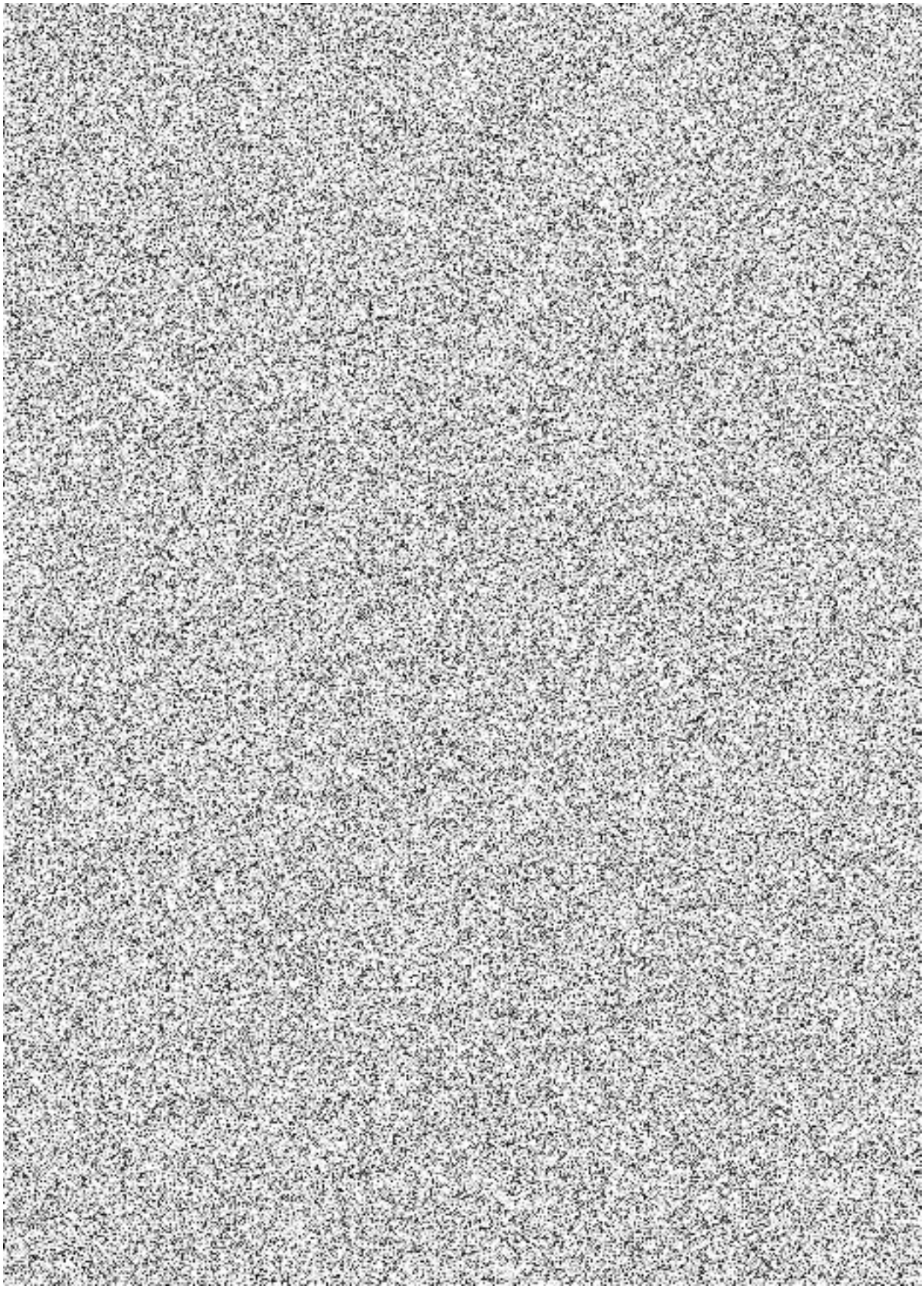


3.6.2 POWER START-UP

3.6.2.1 POWER START-UP TESTS



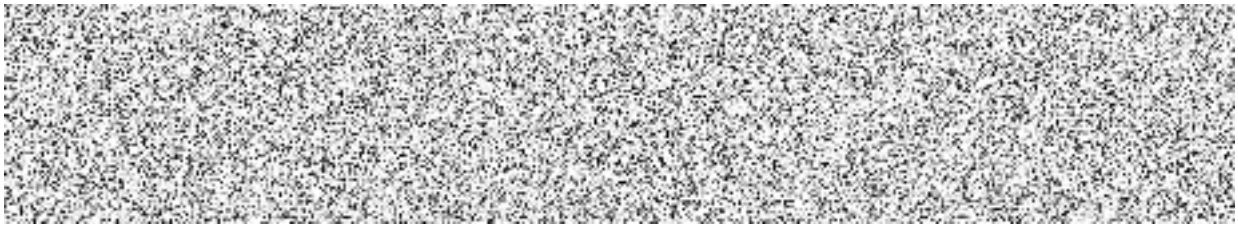




3.6.2.2 PERFORMANCE TEST

A

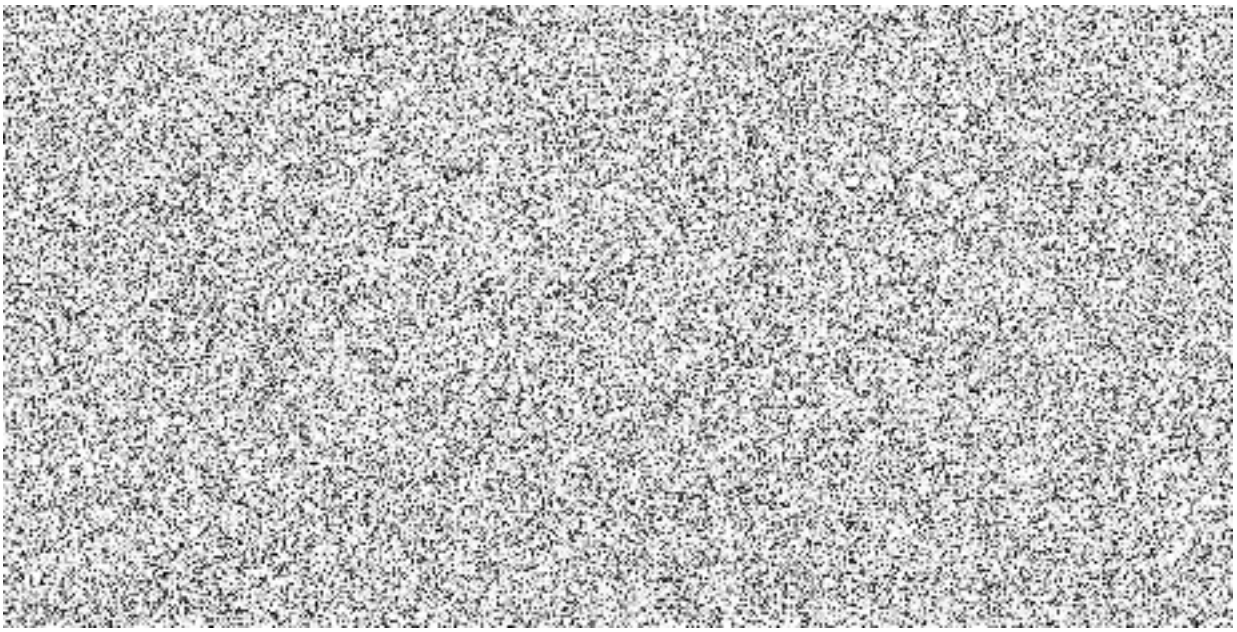
The Supplier* shall inform the Owner* in writing as soon as all relevant Structures, Systems and Components* of each Unit* have been tested successfully and each Unit* is ready for the Performance Test*.



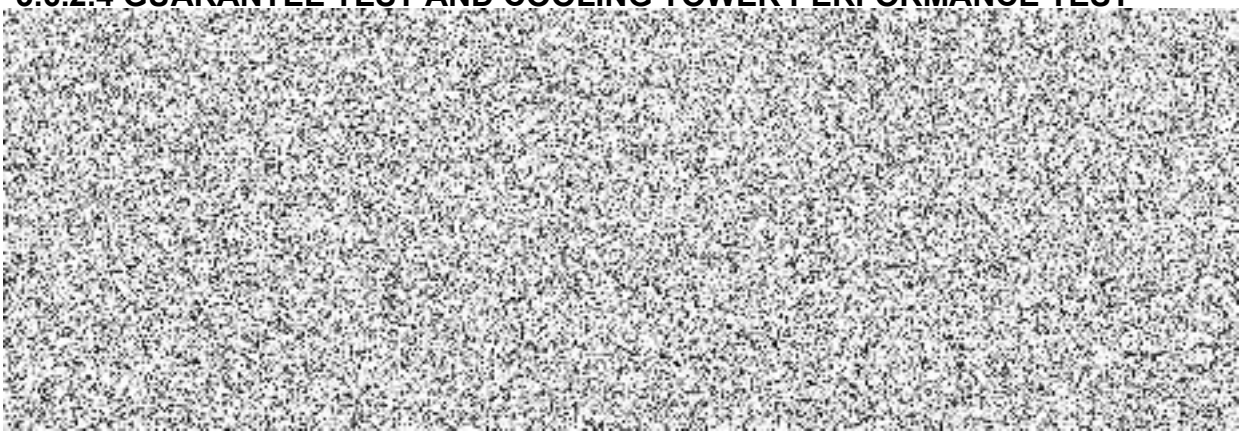
3.6.2.3 DEMONSTRATION RUN

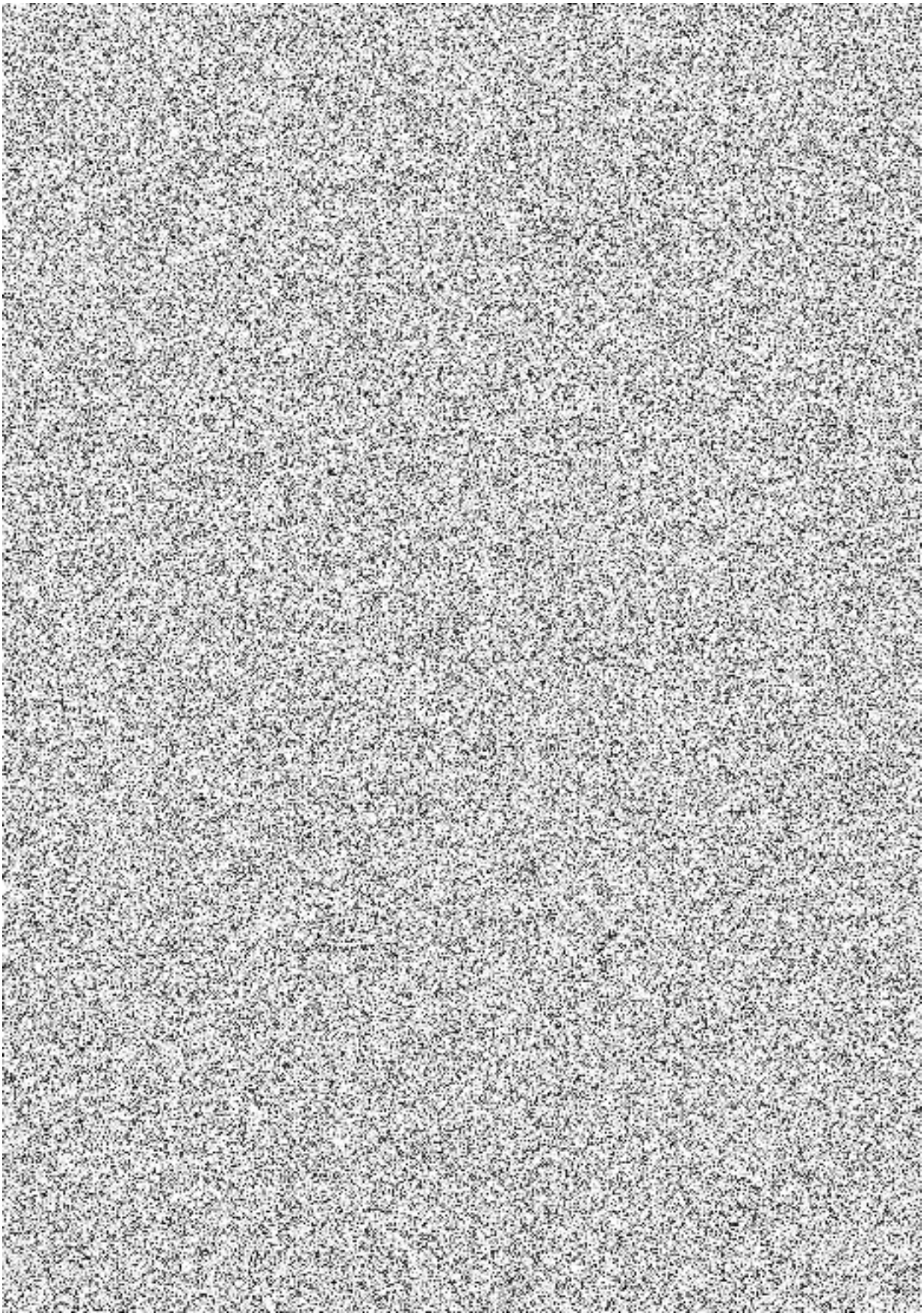
A

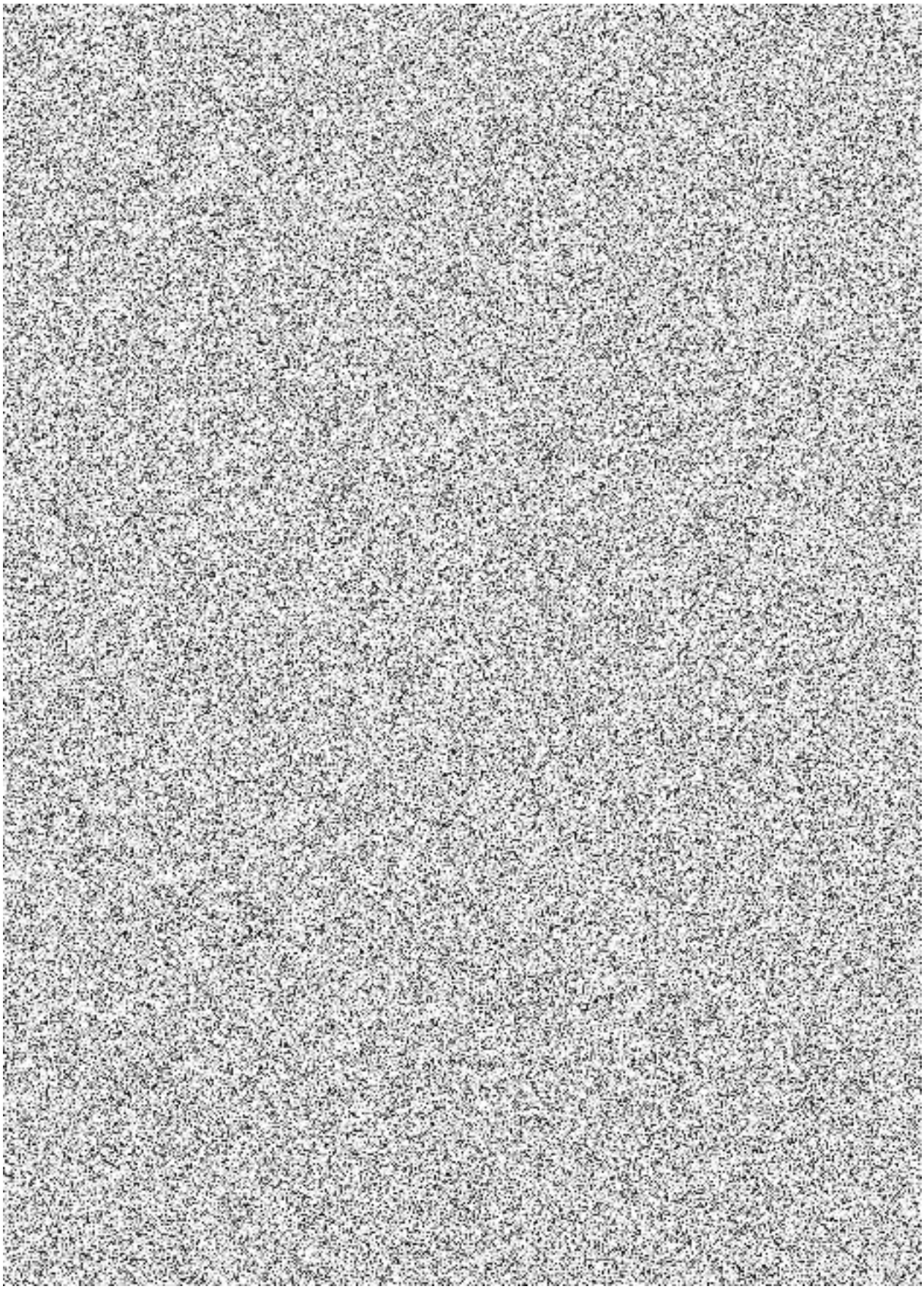
If the Performance Test Certificate* has been issued by the Owner* and the Supplier* notifies the Owner* in writing that the Plant* is ready for the Demonstration Run*, the Demonstration Run* shall be carried out by the Supplier* in accordance with Section 14.4 of the Terms and Conditions*.

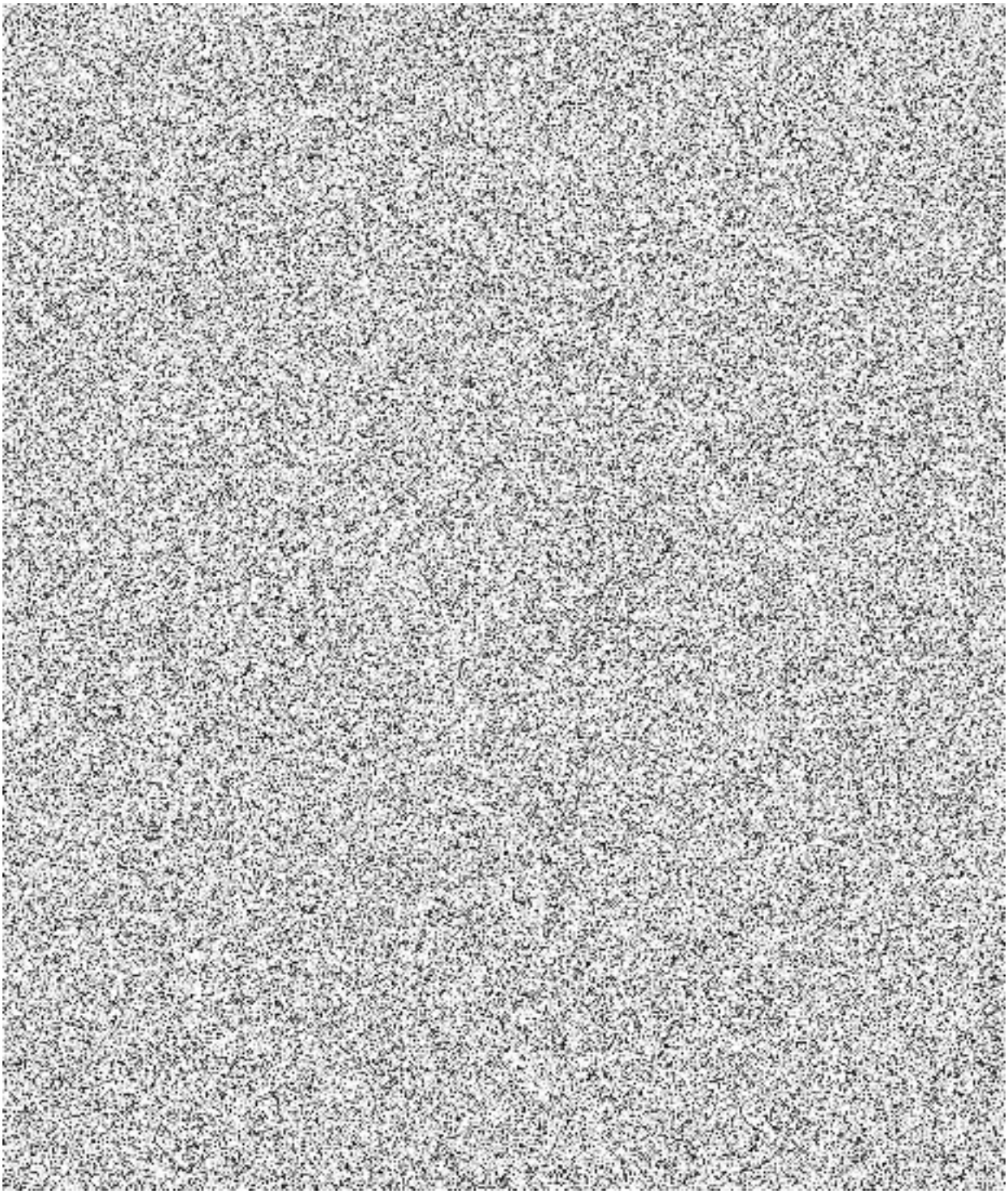


3.6.2.4 GUARANTEE TEST AND COOLING TOWER PERFORMANCE TEST

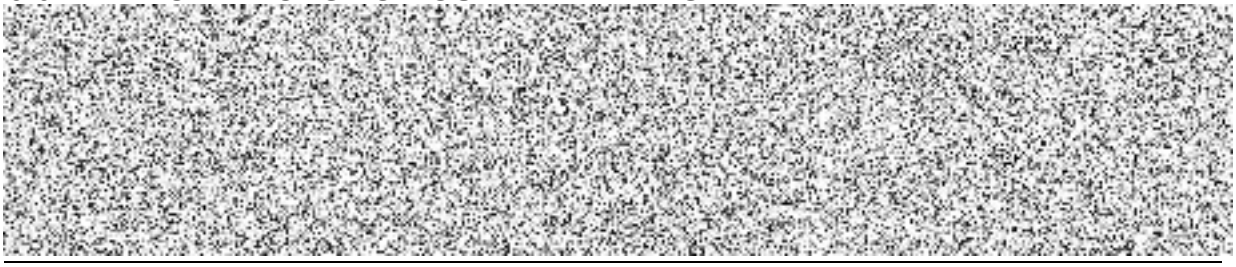


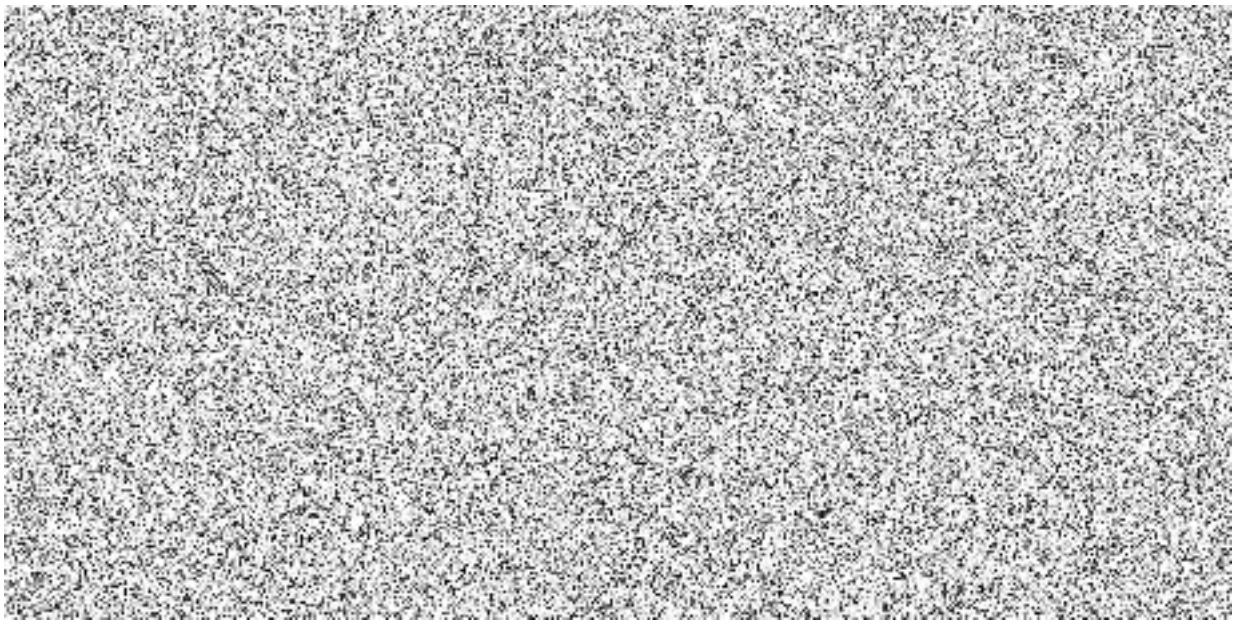




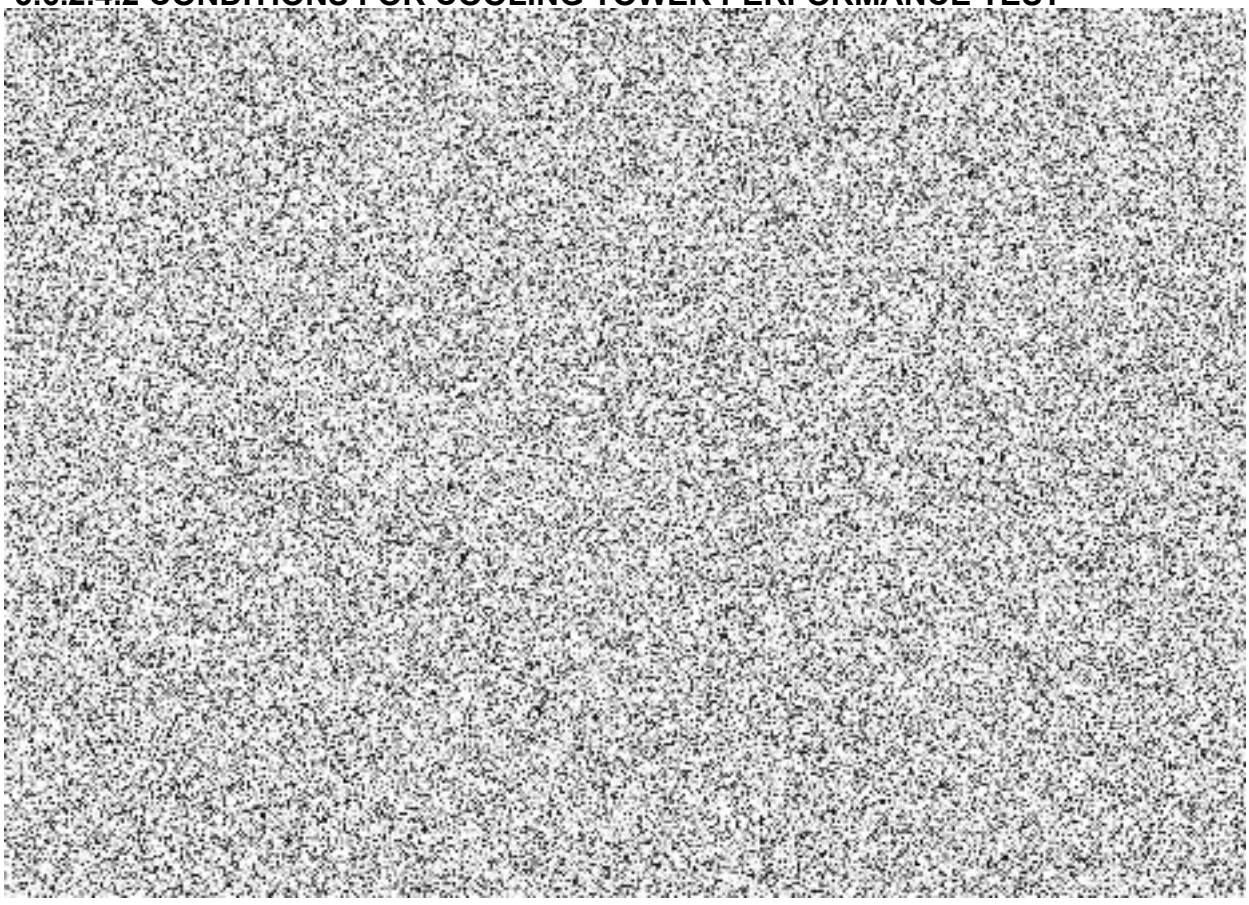


3.6.2.4.1 CONDITIONS FOR GUARANTEE TEST



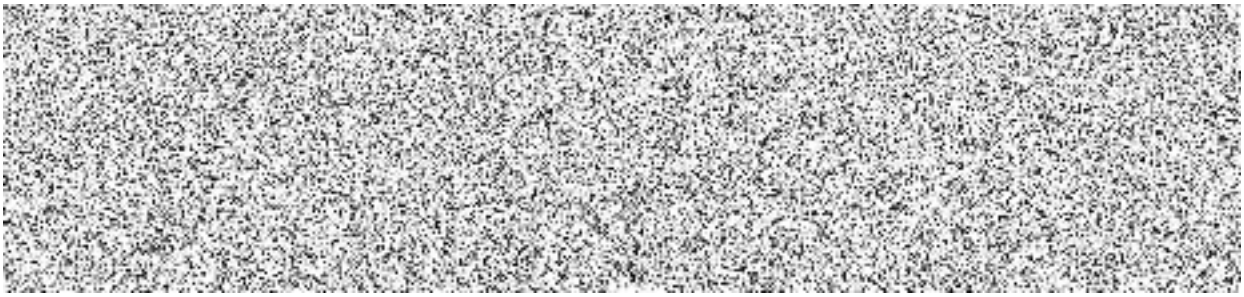


3.6.2.4.2 CONDITIONS FOR COOLING TOWER PERFORMANCE TEST

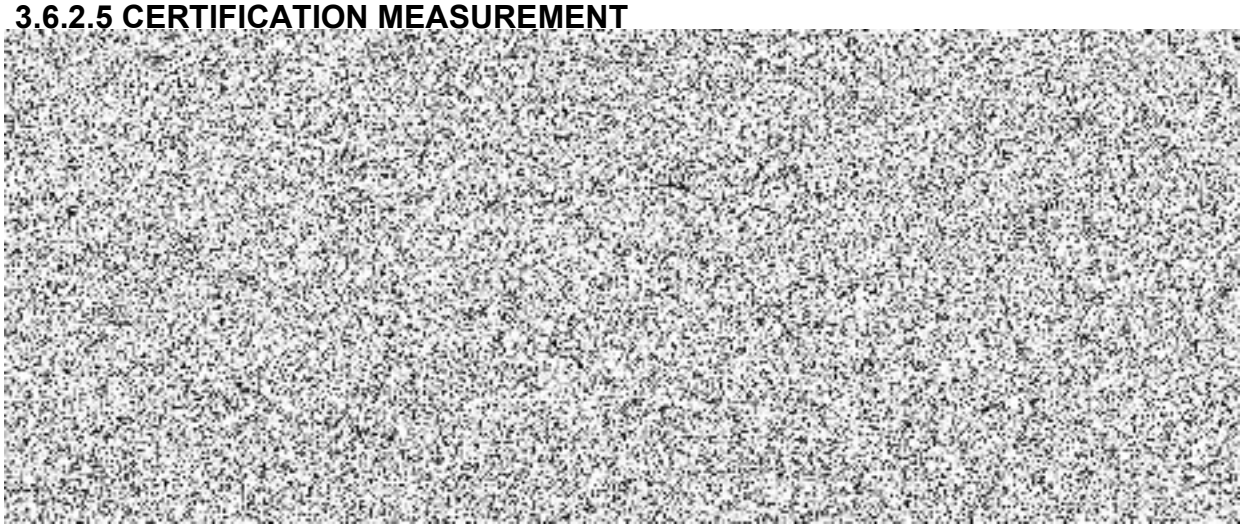


3.6.2.4.3 DESIGN PLANT PARAMETERS

A



3.6.2.5 CERTIFICATION MEASUREMENT



3.6.2.6 PROVISIONAL TAKEOVER

The Supplier* shall ensure and prove that the Plant* and/or Unit* complies with the requirements provided under Section 14.5 of the Terms and Conditions*.

3.6.2.7 TRIAL OPERATION

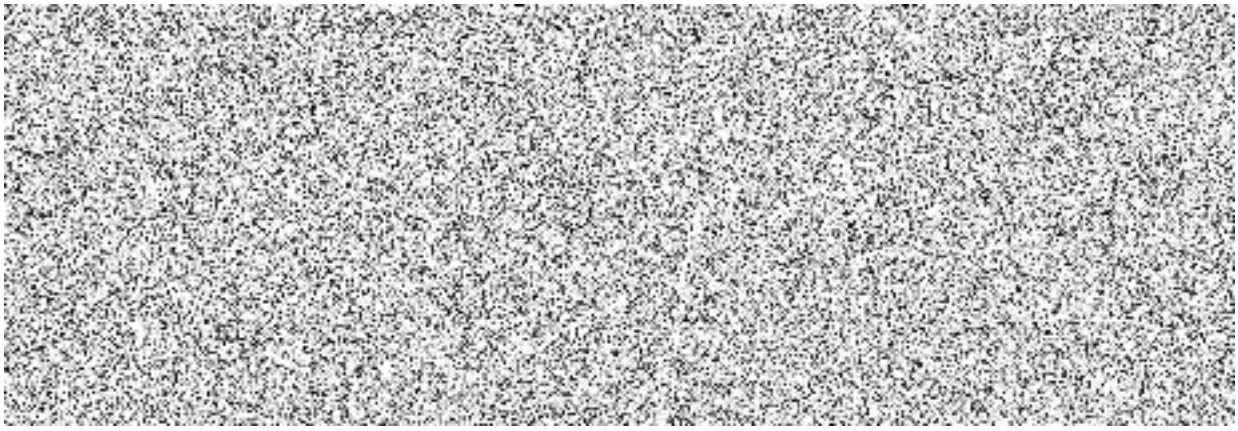
A

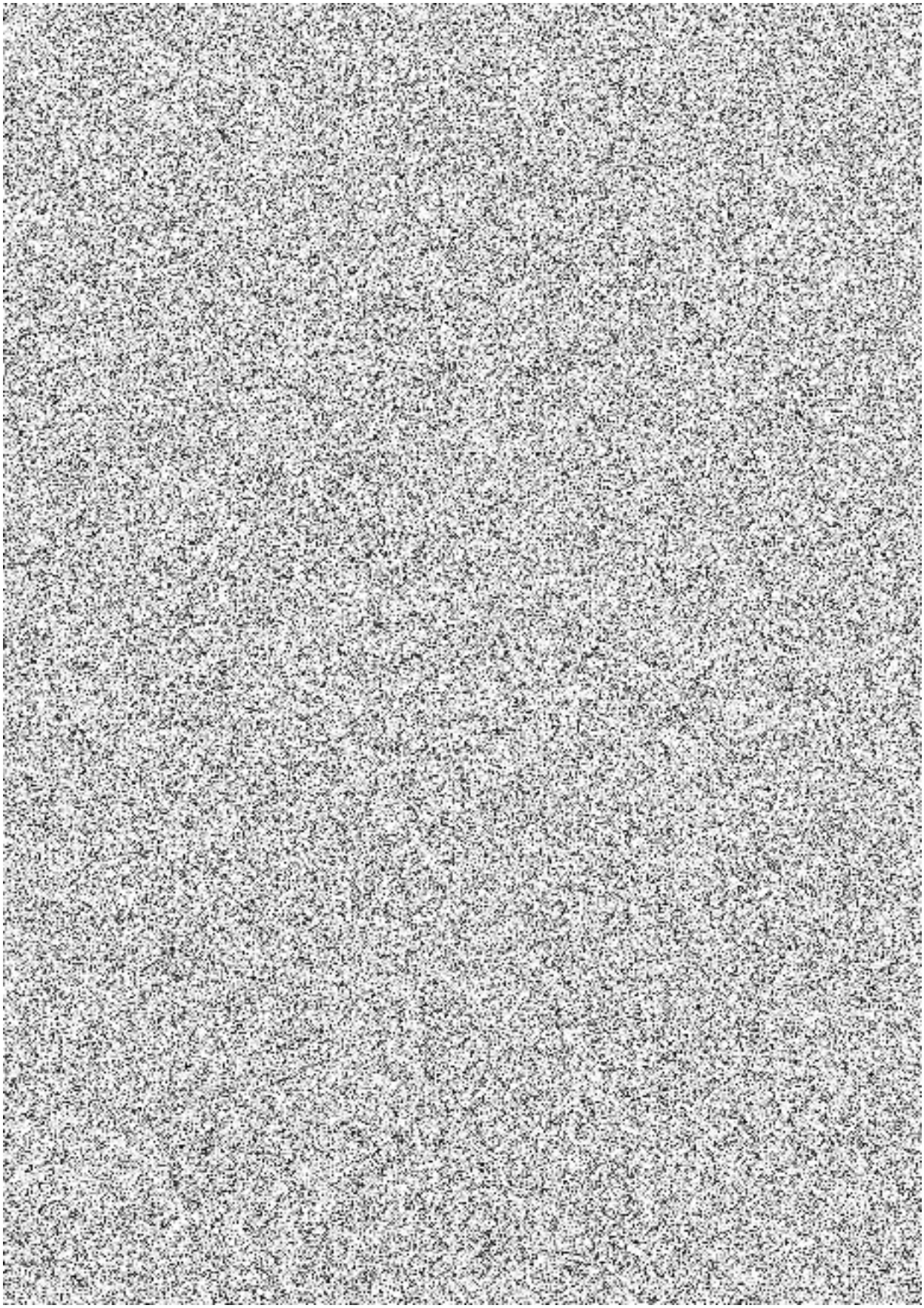
The Supplier* shall provide the support to the Owner* for the preparation of the Trial Operation Program as a part of the Power Start-up Program.

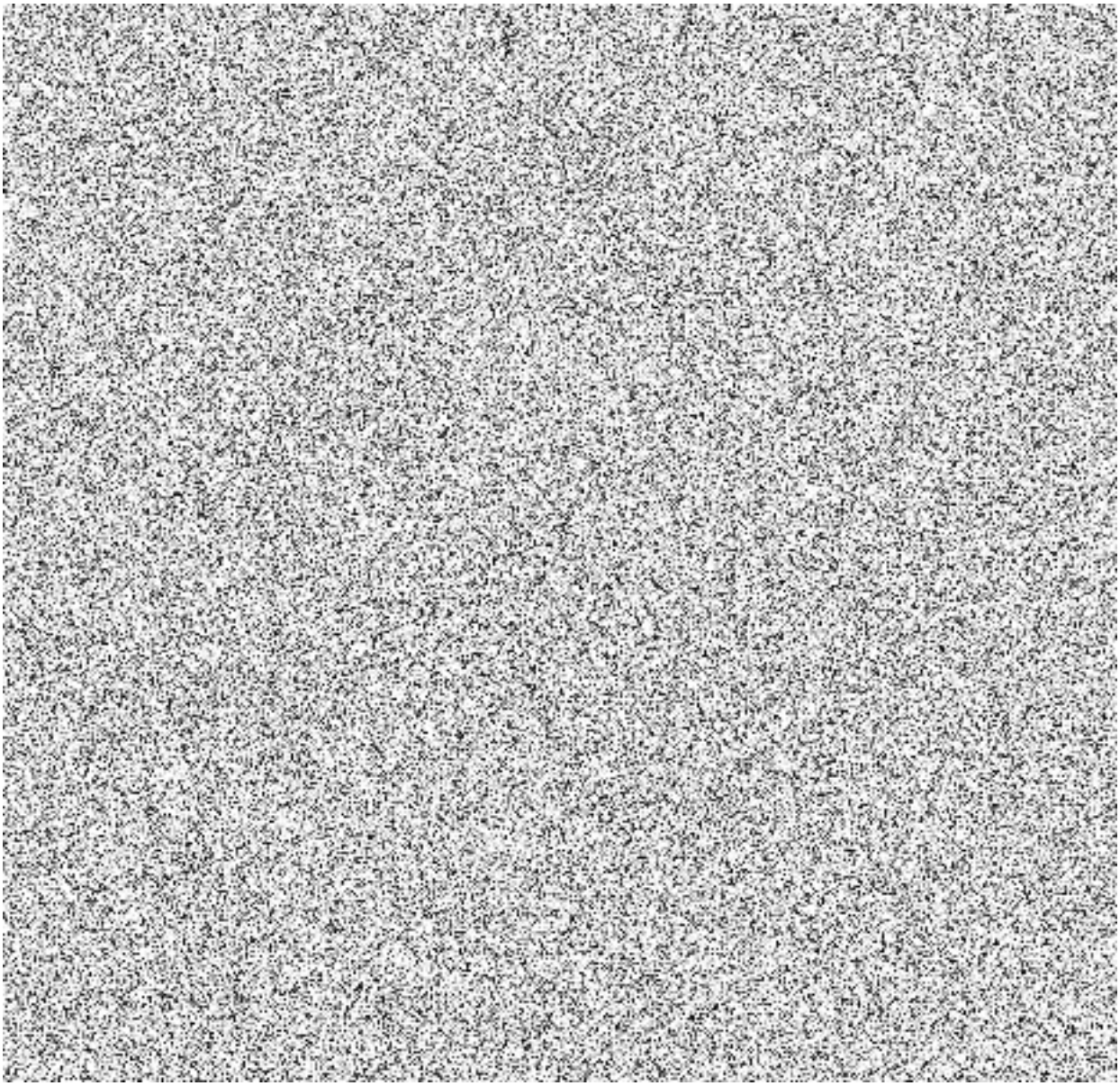
B

The conditions for the Trial Operation* are defined in the Terms and Conditions*.

3.6.2.8 LOAD FOLLOWING TEST







3.7 FINAL TAKEOVER

The Supplier* shall ensure and prove that the Plant* and/or Unit* complies with the requirements provided under Chapter 17 of the Terms and Conditions*.