

# General Requirements on Suppliers' Involvement

## Legislative Context for Nuclear Qualifications

Every responsibility concerning the nuclear facility Licensee with the HAEA.

„1/2022. (IV.29) HAEA decree (NSC) Section 34.

*(1) The licensee may involve suppliers in nuclear safety related activities according to the requirements of Annexes 2 to 10.*

*The licensee shall be responsible for the maintenance of nuclear safety even in such a case.*

*(2) The licensee of the nuclear facility shall develop and operate a qualification system according to Annexes 2 and 9 in order to verify the suitability of the suppliers intended to be involved.*

*(3) Prior to the start and during the performance of the supplier's activity the licensee shall ensure that the supplier is able to provide the conditions required for the work performance.”*

*„9.2.2.0600. No supplier shall be allowed to undertake nuclear safety related work unless permitted to do so by the Licensee, under continues competent supervision.”*

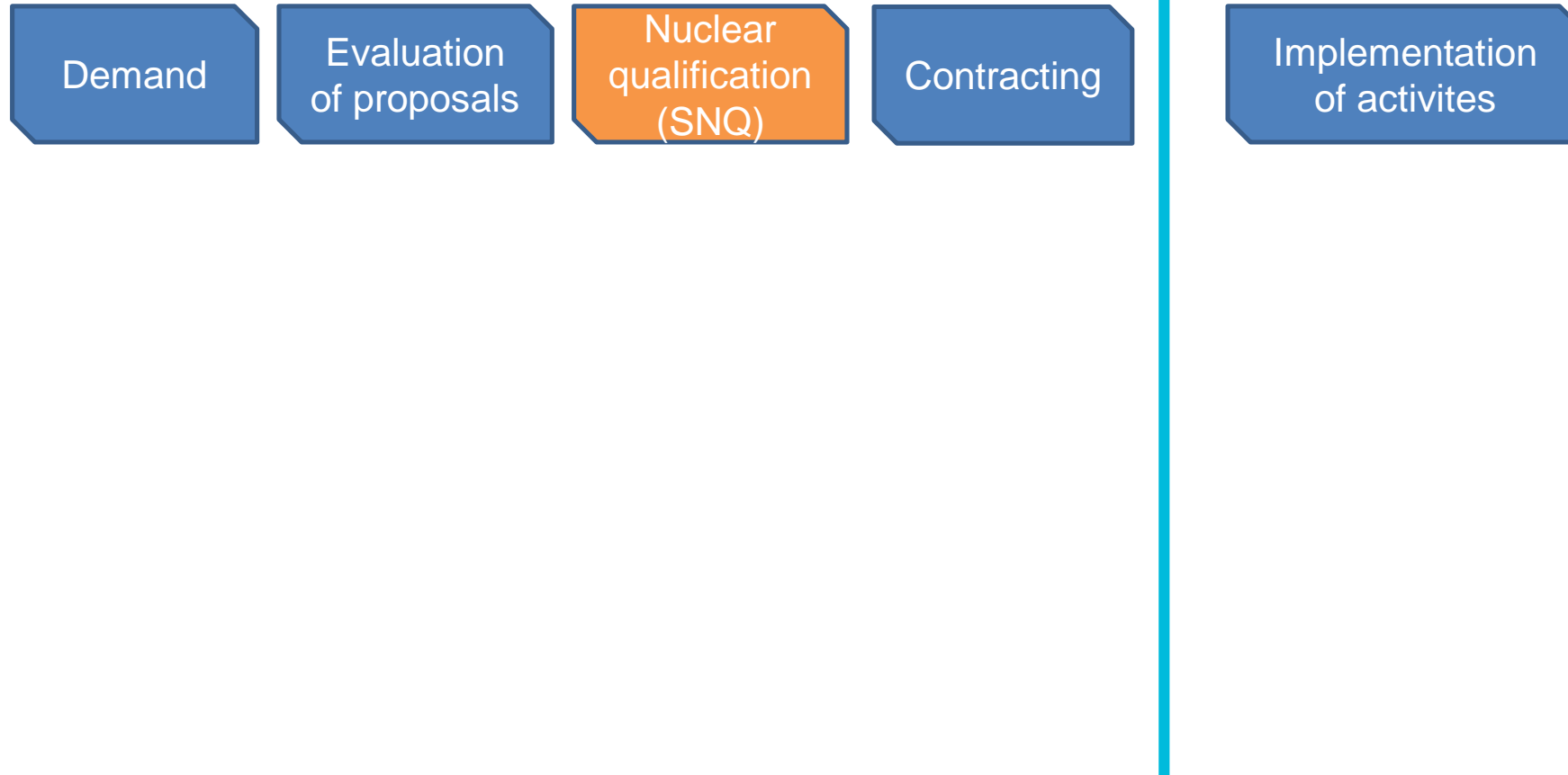
*„9.2.2.0700. The capacity and capability of suppliers for fulfilling their duties shall be examined and verified prior to the start of the activities and monitoring it regular intervals.”*

## The Main Characteristics of the Nuclear Qualification System



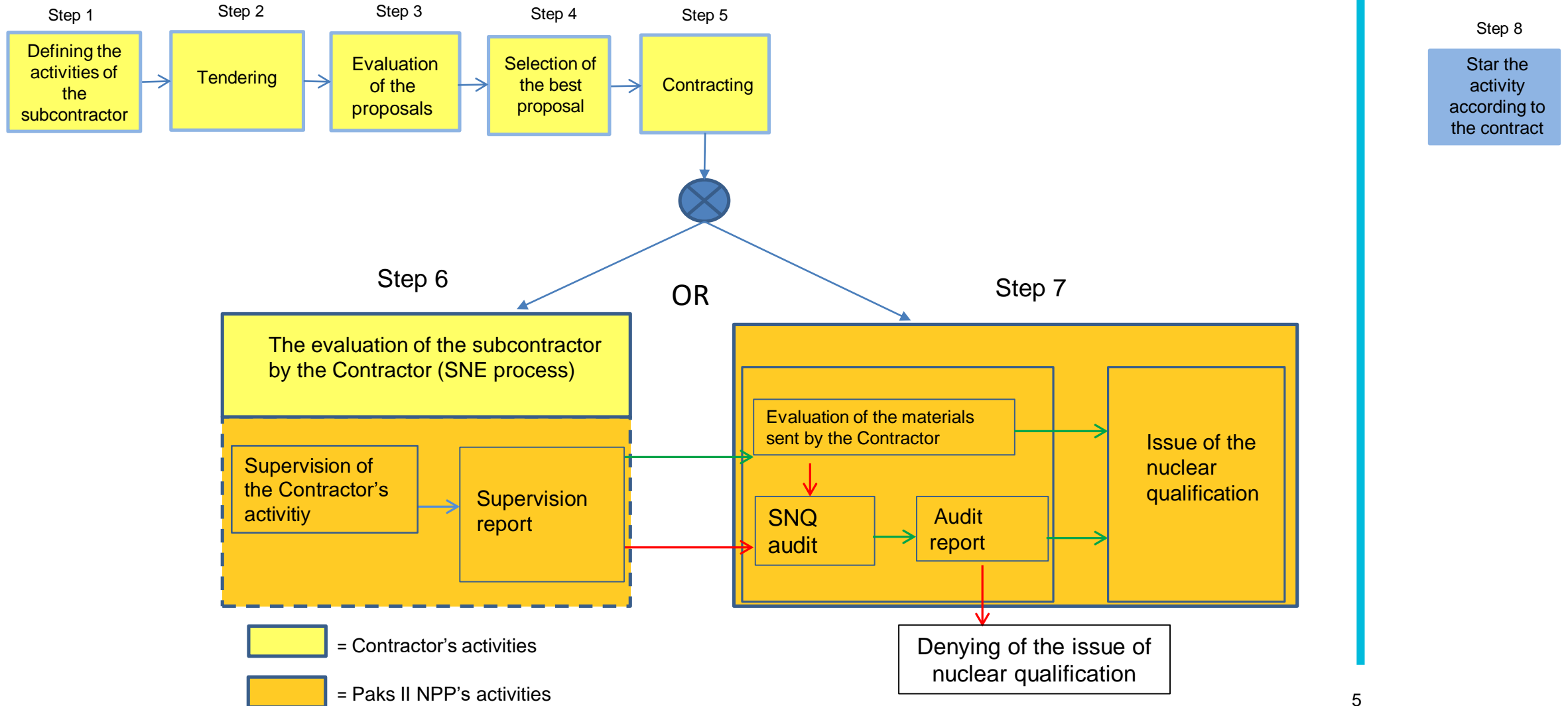
- It applies differentiated approach taking into consideration of the effect on safety, the life period of the facility and the required activity.
- Covers the complete supplier chain.
- Based on the examination of existing capacities.
- Extends on the evaluation of past achievements, which are relevant in the current achievements as well (references).
- Examines the documents concerning suppliers' activities (product, service).
- Evaluates the suppliers' quality management system
- Examines the existence and appropriacy of the site, personnel, machines, materials, and technologies in the scope of examination.
- Performs a sampling method of the processes and operational practices, qualitative and quantitative examinations.

# I. Processes Concerning the Contracts of Paks II NPP

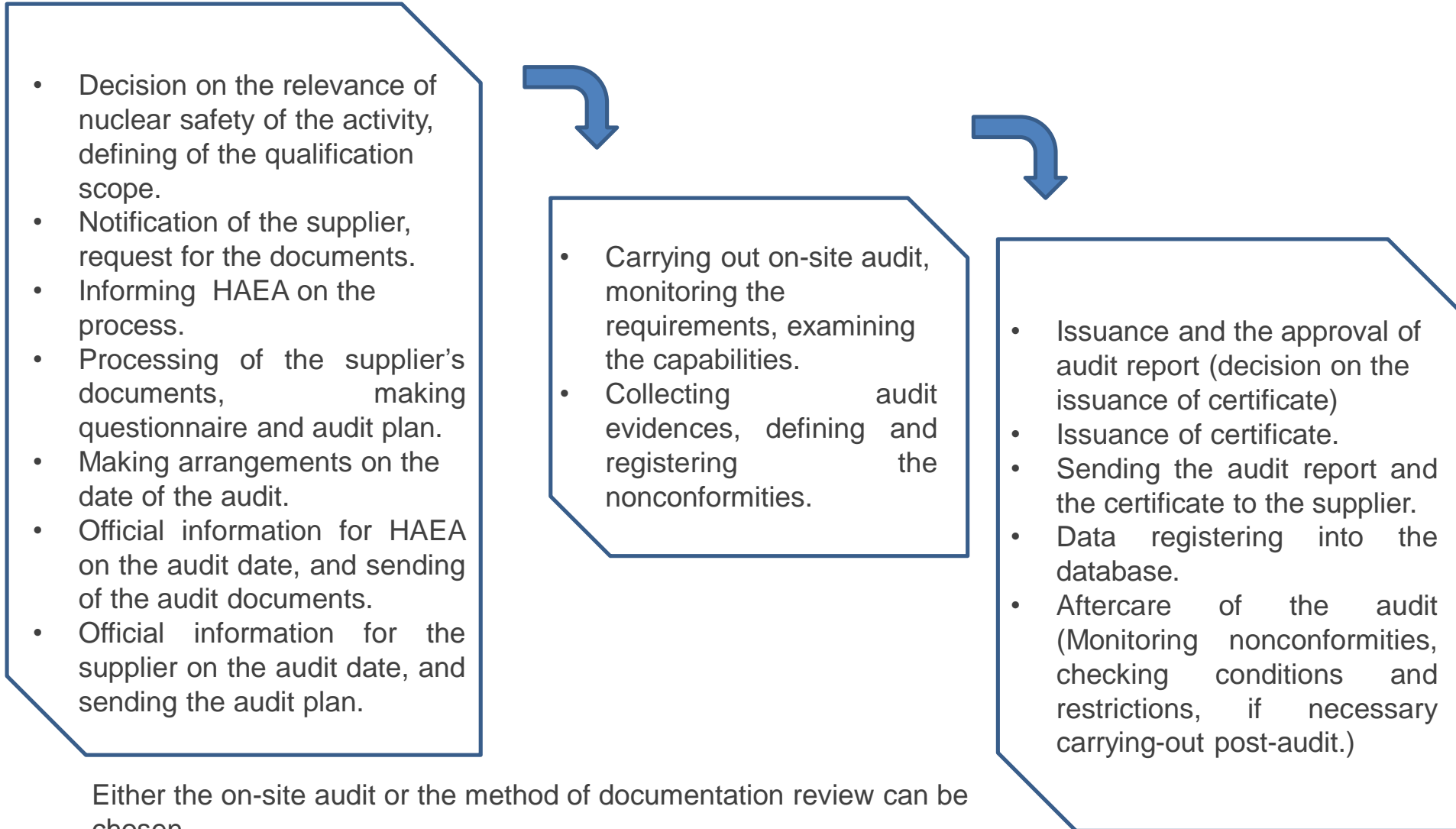


## II. Procedures Regarding the Contracts of the Main Contractor

### Cooperation with the Main Contractor Concerning the Qualifications



# Nuclear Qualification Audits (SNQ)



Either the on-site audit or the method of documentation review can be chosen.

## Audit findings



### Proposal

If the supplier fulfil the relevant requirement but a situation is identified which can cause problem in a further phase or a more effective solution is available, the proposal shall be taken to the supplier.

The supplier is free to decide to act on or not in accordance with the proposal.

The proposal has no effect on the beginning of the activity determined in the qualification's scope.

## Audit findings



### Restriction

If the supplier does not have adequate competence in the respect of an activity (or does not fulfil the relevant requirements of the NSC at an acceptable level) the Owner shall apply restriction.

The restriction can be

- permanent, in this case it is compulsory within the full term of validity of the qualification.
- temporary, it exists as long as the restriction for the problem is removed/lifted by the Owner. (e.g. If there was not adequately qualified or properly entitled welder at the time of the audit, the welding activity will be restricted till the proper capacity is proved).

In this case the supplier can carry out other activities supposing those involved in the qualification's scope.



## Audit findings



### Nonconformity:

According to the concept of internal procedure three stages are distinguished and applied:

- Minor nonconformity
- Medium nonconformity
- Major nonconformity

The organization under the audit process has to adopt measures in order to cease or correct the reasons of the nonconformities. Within a reasonable time depending on the seriousness of the nonconformity, measures and evidence of fulfilment shall be sent to the Owner. If the measure is appropriate and carried out efficiently, the nonconformity can be closed.

The corrective measures (with dates and responsible persons) must be sent to the Owner.

**The nonconformities do not hinder the beginning of the activity.**

## Audit findings



### Condition

In those cases, when a main element is missing in order to begin the activity (e.g. an introduction of a regulation, making a contract etc.) and the supplier is not able to carry out the activity in the proper way, a condition will be applied.

In case of a condition precedent being fulfilled and approved by the Owner the supplier can begin the activity involved in the qualification's scope.

The supplier shall begin the activity after the conditions have been lifted.

# Certificate Issued by Paks II NPP



1. name and address of the organization
2. The scope of the qualification
3. The validity of the qualification
4. Number of audit
5. Reference to the combined validity with the audit report
6. Signatures



### III. Supervisor Activity



#### Legislative context for Nuclear Supervision

Every responsibility concerning the nuclear facility Licensee with the HAEA.

„1/2022. (IV.29) HAEA decree (NSC) Section 34.

(1) *The licensee may involve suppliers in nuclear safety related activities according to the requirements of Annexes 2 to 10. The licensee shall be responsible for the maintenance of nuclear safety even in such a case.*

(2) *The licensee of the nuclear facility shall develop and operate a qualification system according to Annexes 2 and 9 in order to verify the suitability of the suppliers intended to be involved.*

(3) *Prior to the start and during the performance of the supplier’s activity the licensee shall ensure that the supplier is able to provide the conditions required for the work performance.”*

„9.2.2.0600. *No supplier shall be allowed to undertake nuclear safety related work unless permitted to do so by the Licensee, under continues competent supervision.”*

„9.2.2.0700. *The capacity and capability of suppliers for fulfilling their duties shall be examined and verified prior to the start of the activities and monitoring it regular intervals.”*

### III. Supervisory Activity



The main elements of the supervisory system

- Control of the activities of companies with nuclear qualification through supervisory audits. (SNS)
- On-site inspection of the activities (construction and manufacturing) – 4th level inspection according to the No. N9.2 HAEA guide.

### III. Supervisor Activity

#### Suppliers' Nuclear Supervision audits (SNS)

- There is a need for supervision the activity of organizations with nuclear qualification (e.g. major nonconformity)
- Notification of the supplier.
- Informing HAEA on the procedure.
- Making questionnaire and supervision audit plan.
- Making arrangements on the date of audit.
- Official notification of HAEA on the date of supervisor audit, sending the documents of the supervision audit.
- Official notification of the supplier on the date of supervision audit, sending the audit plan.

- Making on-site audit, and monitoring requirements, activities, personnel, materials, products, capabilities
- Collecting audit evidences, defining and registering nonconformities.

- Compiling and approving of the supervision report (**decision on the adoption, restriction or withdrawal of the qualification**).
- Sending the supervision report to the supplier.
- Registering data into the supervision database.
- Aftercare of the audit. (Monitoring nonconformities, checking conditions and restrictions, if necessary carrying-out post-audit).

### III. Supervisor Activity

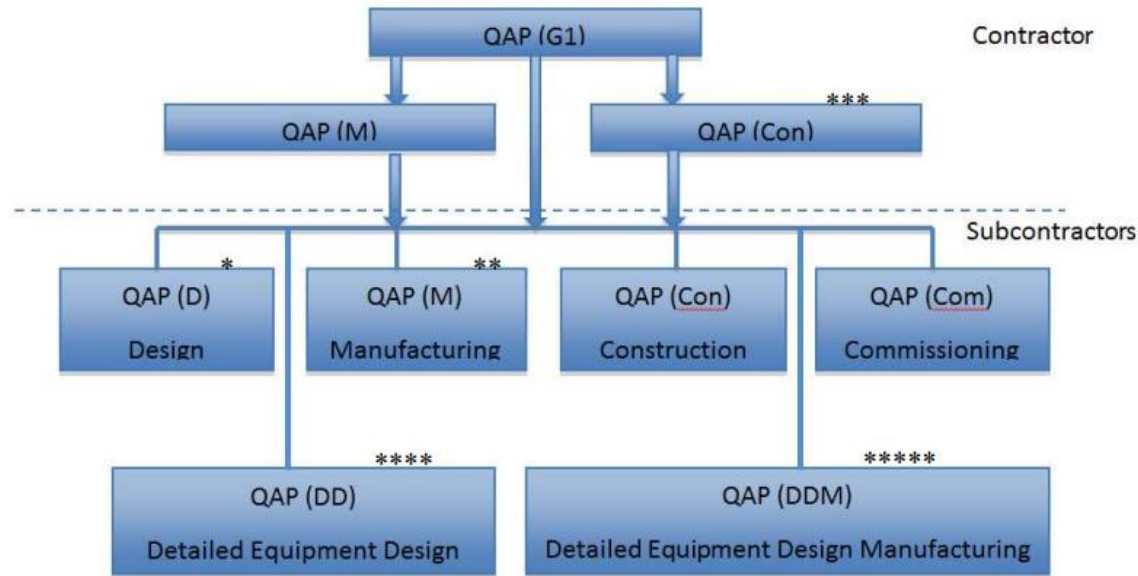


#### Main inputs of the SNS audits

- Experiences of the previous SNQ audits
- Experiences of the SNE audits conducted by the Contractor
- Experiences of the previous supervisor audits with the supplier
- Experiences of Design Process Review (DPR) audits
- Experiences of Project Management Manual (PMM) audits
- Findings of the previous investigation related to the supplier

### III. Supervisor Activity

#### Approval of the Quality Assurance Programs



The QAP hierarchy (source: PAKSII-PMM-12.0.01 QAP (G1) point 4.8.3. )

Chart 1. QAP Hierarchy

Quality plans:

The document summarizing the quality program of the whole activity and all of the related measures. It has an interface function with the supplier's management system providing the fulfilment of the Hungarian requirements.

Quality inspection and sampling plans:

Includes the method of the inspections, the scope, the participants, the criteria of the approval, the method of the documentation, and the determination of the hold points concerning the activity.





PAKS II. LTD.