ISO 9001:2015 Quality Management System (QMS)
for Nuclear Nonproliferation and Security Training Program

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1. Introduction

KINAC/INSA achieved the latest International Organization for Standardization's Quality Management Systems (ISO 9001:2015) and this paper describes the achievement process and effectiveness of ISO 9001:2015.

2. Necessity of ISO 9001:2015 certification for COE

The requirements of ISO 9001:2015 focus on overall quality management including education and training. The greatest advantage of ISO 9001:2015 certification is that it presents methods and procedures for improving service quality through analysis of customer needs and expectations. Therefore, it can help COEs to develop high quality, effective and sustainable training programs that support the implementation of international recommendations, and national regulations for nuclear nonproliferation and security.
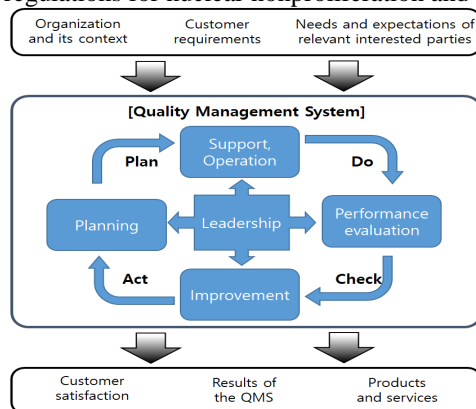

Figure 1. Representation of the structure of ISO in PDCA(Plan, Do, Check, Act) cycle [2]

3. KINAC/INSA's ISO 9001:2015 Certification

KINA/INSA's achievement process of ISO 9001:2015 certification is as follows.

DATE	PROCESS
'16.7.~12.	Consultancy Meeting (16 times)
'16.10	Certification Application
'16.11.	Certification Audit
'16.11.	Achieving Certification
'17.4.	1st Serveillance Audit
'17.10.	2nd Serveillance Audit
'17.11.	Internal Audit
'18.5.	3rd Serveillance Audit
'18.10.	Internal Audit
'18.11.	4th Serveillance Audit
'19.5.	5th Serveillance Audit
'19.9.	Internal Audit
'19.10.	Recertifucation Audit
'19.11.	Achieving Recertification
'20.9.	6th Serveillance Audit

Table 1. KINAC/INSA ISO 9001:2015 Certification Journey

In November 2019, KINA/INSA requested recertification audit of ISO 9001:2015 to KSA and achieved KSA's certification again. Through recertification audit, it has been re-confirmed that all processes have been operated based on QMS and fulfilled all requirements of ISO 9001:2015 [4].

A. Management Support	
PA01	Policy management process
PA02	Organization & job assignment management process
PA03	Internal audit process
PA04	Management review process
PA05	Human resources development process
PA06	Data analysis & operation process
PA07	Corrective action management process
PA08	Resource management process
PA09	Human resources management process
B. Document Record	
PB01	Quality document management process
PB02	Document & Information management process
PB03	Records management process
PB04	Knowledge management process
PB05	Quality planning management process
C. Customer Management	
PC01	Customer reruirements management process
PC02	Customer information management process
D. Supply Management	
PD01	Supplier management process
PD02	Procurement management process
PD03	Educational facility & equipment management process
PD04	Expandables management process
E. Operation Management	
PE01	Education management process
PE02	Instructor management process
PE03	Traceability management process
PE04	Storage facility management process
F. Quality Management	
PF01	Inspection management process
PF02	Noncomformity output management process
G. Environment Management	
PG 01	Legal management process
PG 02	Communication management process
PG 03	Risk management process
PG 04	Monitoring and measurement management process
PG 05	Working environment management process

Table 2. List of all Processes developed by KINAC/INSA for maintaining ISO 9001:2015

4. Conclusions

ISO 9001:2015 certification could be a core competence of KINAC/INSA, which is distinct feature from neighboring countries' COEs. Above all else, the greatest advantages of ISO 9001:2015 certification are that COE can not only improve education and training course's quality based on analysis of customer needs and expectations but also provide high quality education and training courses met QMS.

KINAC/INSA will ensure the reliability of training courses based on ISO 9001:2015 certification and continue to improve training courses through standardized work procedures.

REFERENCES

[1] IAEA Nuclear Security Series No. 20 "Objective and Essential Elements of a State's Nuclear Security Regime"
[2] ISO 9001:2015 Quality Management Systems -Requirements, ISO, 2015
[3] ISO 29990:2010 Implementation handbook, WINS, 2016
[4] Operation and Infrastructure Improvement of International Nuclear Nonproliferation and Security Academy in 2019, KINAC, 2020