Effective Separation between Regulatory Function and Promotional Function in the Government of Uganda

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1. Introduction

The increasing demand for clean and sustainable energy has resulted in many countries considering nuclear energy as one of the options. In 2009, the IAEA noted a wide use of radioactive sources and ionizing radiation and clearly indicated that many countries expressed the need to introduce nuclear power into their national energy mix. However, the plans for developing nuclear power programme in some countries were faster than the establishment of the necessary infrastructure and capabilities [1].

Uganda is one of the countries that are considering introducing nuclear power into their energy mix, and thus, in 2009, established the Atomic Energy Council to regulate the peaceful application of ionizing radiation. Although the government of Uganda has done much to establish an independent regulatory body, the regulatory personnel should guard against pressure from government institutions and stakeholders that can unduly influence regulatory decision making. In addition, they need to be fully aware of their authority.

The purpose of this paper was to assess the perceived regulatory independence of regulatory staff as one of the basic personal attributes for effective and efficient execution of regulatory activities. Furthermore, effective separation between regulatory function and promotional function in Uganda was noted as one of the fundamental requisites for effective regulatory performance especially during the early infancy period of a regulatory body.

The study assessed the perceived regulatory independence in comparison with the theoretical independence. The results showed a good sense of independence by the staff and thus, the approach can be used for regulatory body self-assessment. However, more appropriate forums such as the Integrated Regulatory Review Services or the Convention on Nuclear Safety are suggested as the best ways of assessing regulatory independence.

2. Separation of Regulatory Functions

The government is mandated to establish and sustain an effective legal and governmental framework for safety, including an independent regulatory body [2]. Regulatory independence cannot be complete due to principal agency dilemma and regulatory capture. Therefore, appropriate involvement of legitimate groups both governmental and non-governmental is required to ensure accountability. However, adequate measures must be in place to protect the regulatory body from entities having interests or responsibilities that could unduly influence regulatory decision making. Such entities include not only the regulated industry and medical users of radioactive material and technology, but also other governmental bodies charged with the development or promotion of the technology, as well as political bodies and non-governmental bodies [3].

In principle, the four dimensions of independence must be in place, that is, *regulatory*, *supervisory*, *institutional* and *budgetary independence*.

Regulatory independence is critical for effective rulemaking in the area of nuclear safety regulations because of the nature of the risk associated with application of nuclear technology. A high degree of autonomy in setting prudential regulations is a key requirement to ensure that the sector complies with international best standards and practices [4].

Budgetary independence provides the driving force for the regulatory body. It gives the regulatory body freedom to determine and meet its staffing, training, and remuneration needs.

3. Significance of Separation

Regulatory bodies located within the administrative structure of another organization, or is supervised by it, does not necessarily mean that the regulatory body lacks independence. It is rather important to evaluate the detailed provisions determining how the practical work of the two organizations is conducted, that is the *de facto* independence.

Although if the parent organization has responsibilities of conducting or promoting nuclear related activities, the fact that it is supervising the regulatory body will raise issues of "independence". In such a situation, administrative measures have to be taken in order to ensure that safety related decisions of the regulatory body are separate from developmental or promotional decision making. Thus, assuring a rational decision making process based on a pubic choice concept aimed at achieving the socially acceptable level of nuclear safety.

4. Legal Framework in Uganda

In March 2007, the Atomic Energy Bill was approved by Cabinet, passed by Parliament in May 2008, assented to by His Excellence the President in November 2008 and hence became the *Atomic Energy Act, 2008*. All the provisions of the Atomic Energy Act went into force on February 18, 2009.

The Act provides the legal framework for regulating Atomic Energy in Uganda. Pursuant to section 4 of the Act, the Atomic Energy Council (AEC) was establishes as an independent regulatory body in the Ministry of Energy and Mineral Development in July 2009. *Regulatory objective of the Atomic Energy Council is to provide for the protection and safety of individuals, society and the environment from the dangers resulting from ionizing radiation.*

From the *de jure* perspective, Section 13 of the Atomic Energy Act, 2008 affirms the functional separation of the Atomic Energy Council from entities having interests or responsibilities that could unduly influence regulatory decision making. Section 24 provides for the source of funding of the Atomic Energy Council.

5. Method

The Regulatory independence index by Sander (2003) was modified to conduct the survey. The data were collected through questionnaires sent to nine cadres responsible for daily regulatory activities.

The index was constructed on the basis of the answers in the questionnaire with respect to the four thematic sections of regulatory independence as indicated in table1. All answers were given a value between 1 and 0, with 1 being the answer indicating a high degree of independence and 0 indicating a low degree of independence.

Respondent (9 Recruited out of 13)	External Influence		Operational Autonomy		
	1	0.61	0.33	0.67	0.25
2	0.61	0.21	0.75	0.63	0.55
3	0.56	0.25	0.79	0.88	0.62
4	0.56	0.00	0.79	0.88	0.56
5	0.56	0.00	0.79	0.88	0.56
6	0.64	0.25	0.83	0.88	0.65
7	0.25	0.25	0.58	0.63	0.43
8	0.44	0.50	0.33	0.55	0.54
.9	1.62				
Index	0.53	0.22	0.69	0.74	0.55

Table 1 <u>Regulatory Independence Index</u>

6. Results and Discussion

The study revealed that the Uganda regulatory body has a high level of operational autonomy compared to independence from external influence (see *Table 1*).

The high operational autonomy was enabled by the newly promulgated law, the *Atomic Energy Act, 2008* while low independence from stakeholders was

attributed to the fact that there are few experts in the regulatory body, and thus, there is an appreciable dependence on the experts from the regulated industry. This is somewhat common in the early infancy period during the establishment of the regulatory body, but measures for capacity building must be in place to reduce the gap.

It is important to note that legitimate accountability to government is justified to guard against principal agency problem, regulatory capture and corruption, but we strongly recommend that the reporting of the regulatory body should be to a higher office, for example, the Prime Minister's office.

Furthermore, appropriate forums such as the Integrated Regulatory Review Services or the Convention on Nuclear Safety are suggested as the best forums for assessing regulatory independence.

7. Conclusion

Independence of the regulatory body from those organizations with responsibility for the promotion of the use of nuclear energy is essential for effective regulation. It is recognized that the independence of the regulatory body should be both "*de facto*" and "*de jure*".

Unbalanced independence may open the door to regulatory capture or self-interest, institutional rigidities, over-regulation and principal agency problems which in the long run may lead to regulatory failure if not corrected in time.

Therefore, clear and appropriate mechanisms for accountability and transparency in regulatory decision making are key steps in attaining stakeholder's confidence and in assuring the socially acceptable level of nuclear safety.

References:

[1] INTERNATINAL ATOMIC ENERGY AGENCY, Nuclear Safety Review Report 2009, IAEA, Vienna , pp.2, July 2010

[2] INTERNATINAL ATOMIC ENERGY AGENCY, Safety Principles, IAEA Safety Standards Series No. SF-1, IAEA, Vienna, pp.7, November 2006

[3] Carlton Stoiber, Abdelmadjid Cherf, Wolfram Tonhauser, Maria De Lourdes Vez Carmona, Handbook on Nuclear Law: Implementing Legislation, IAEA, Vienna, pp.25-26, August 2010.

[4] Marc Quintyn, and Michael W. Taylor, Regulatory and Supervisory Independence and Financial stability, International Monetary Fund working paper, pp.15, March 2002.

[5] Katja Sander Johannsen, Regulatory Independence in Theory and Practice: a Survey of Independent Energy Regulators in Eight European Countries, AKF Forlaget, pp.29-51, February 2003.

[6] INTERNATIONAL NUCLEAR ADVISORY GROUP, Independence in Regulatory Decision Making, INSAG-17, IAEA, Vienna, pp.1, December 2003.