A Review on the Needs of Independent Information Channel for Regulatory Body

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1. Introduction

For a regulatory body it is very important to be independent not only in its actions but also in its information gathering channels. It is thus required for an organization to get requisite information for their decision making, as well as to prevail over information asymmetries. For corporate culture, information channels sometimes prove to be extensive enough to rune valuable resources and sometime base delays. The paper will reveal nature of an independent information channel. This review will additionally confer a scenario; a regulatory body may face in case of solely depending upon licensee for its information gathering. Working in the wake of this paper comprises review of allied published materials. It might be more helpful for interested ones to persist this effort by ensuring stakeholder involvement i.e. by making this sensitive topic alive through seminars and working groups.

2. Need of an Independent Information Channel

Information as a concept has a diversity of meanings, from everyday usage to technical settings. Generally speaking, the concept of information is closely related to notions of constraint and mental stimulus. The English word was apparently derived from the Latin accusative form (informationem) of the nominative (informatio): this noun is in its turn derived from the verb "informare" (to inform) in the sense of "to give form to the mind", "to discipline", "instruct", "teach". Inform itself comes (via French) from the Latin verb informare, to give form to, to form an idea of. As a final note, the ancient Greek word for form was "μορφή" (morf -> morphe, Morph) and also είδος eidos (kind, idea, shape, set), the latter word was famously used in a technical philosophical sense by Plato (and later Aristotle) to denote the ideal identity or essence of something. "Eidos" can also be associated with thought, proposition or even concept.

2.1 Behavioral Aspects toward Information Sharing

As a considerable aspect, cooperation is an emblematic mean of reducing uncertainty. In order to reduce hierarchal information load, elimination of slack resources may lessen additional cost to organization. The choice clearly depends on the alternative costs. For reducing information processing, the task-performing unit should have all the resources required to perform their undertaking. Following the lateral relations perception it also becomes possible to employ an organizational vanity that is different from the simple hierarchical information. At this juncture, information flow for a specific task (or set of tasks) is routed in accordance to the applied business logic, rather than the hierarchical organization. The Matrix organization is aiming to achieve a balance for information processing and decision making among the vertical (hierarchical) and the horizontal (project) structure. Blackler explains a categorization of knowledge types, being: embrained, embodied, encultured, embedded and encoded. Factors which complicate knowledge transfer include inability to articulate intuitive competencies, professional territoriality, non-conducive organizational culture and sometimes, lack of trust behaves like practical problem of transferring knowledge from one part of the organization to another (or all other) part(s).

2.2 Communicative Approach

Ensuring information consistency with physical characteristics of the real situation in a timely manner for making safe and cost effective decisions is an additional aspect to be considered. For instance, outsourcing engineering services turned over to the Nuclear power plants owner frequently does not convey the “know-why” for the operator. Referring to safety culture, personnel must recognize that unreliable data can have subdued effect on plant safety. Original copies describing configuration should be sheltered in accordance with IAEA SS. 50-C/SG-Q to facilitate regulatory review. The rhetoric “information just wants to be free” [1] promotes the ideology. In a nutshell, those who are part of the collaboration benefit – bystanders do not. To use the “free” information from licensees’ R&D, regulatory bodies had better carry out R&D on their own. Industry players will probably not rush to aid regulators in their lack. Information is a transparently valuable but fugitive commodity, always liable to escape unless closely guarded. For industries, optimizing enormous returns from capturing the information channels, the temptation to bend the rules is too strong, as public choice theory and economic common sense imply. Continued temptation to capture the regulators, to induce them to “promote” always persists. Organizational innovation increases the need for greater interdependencies. Each channel has explicit

characteristics, such as information richness, that make it appropriate in specific situations. Harmonization of information among regulators and their licensee might be elucidated by review missions, governmental commitments and commercial agreements on purchase of data (R&D). Resident inspectors of regulatory body could act as reliable channel. Additionally, 12,000 reactor-years of experience should be marshaled. Network of regulators of countries with small nuclear programs is dedicated to free exchange of nuclear regulatory information. Annual meeting of senior regulators too serves regarding this. Monitoring in emergencies is an important information source for regulatory decision making. Well established international channels for interaction include; IRS, and topical database systems maintained by OECD/ NEA. Hidden information problems can be managed by personal interviews and aptitude tests. The decision making for implementation of safety sometime involves comparison among the monetary cost of the measure and the benefits it generates [2]. Licensee usually pursues Nash strategies in communication with regulators. The full information optimum cannot be attained unless gains from information sharing exceed the information rents earned by licensee. Aggregate output and externality levels are lower at the regulated equilibrium than at the full information social optimum. This tradeoff has important implications for regulation under asymmetric information. For the regulatory mechanism to be both incentive and rational, the expected gains must be sufficient to cover expected information rents. Information rents greater than gains would not achieve optimality in Nash nature of the regulatory game. Regulations, to achieve full information social optimum would require costly subsidies.

3. Towards Regulatory Independence

Greater use of social channels implies access to resources (Gupta et al. 1999). Inter unit social interactions blur organizational boundaries, providing a way to achieve synergy that is valuable to the nuclear industry as a whole. Where there are few market players; operators tend to know more than the regulator about technological advances. From an early stage of development it should fully understood the need for independent regulatory agency [3]. Most instances of 'capture' are only partly visible, like an iceberg. Information exchange between regulators and contractors, advisory committees, consultants, etc, should be formally recorded. Specific reasons to seek regulatory information include mastering upcoming facilities, novel analysis, as well as to gain information about operator's contractors in another State. Operator's submissions should include events which may lead to misinterpretation by the public. Regulatory body cannot be absolutely independent of other parts of government: although it should have authority to fund independent advisory bodies & universities. IAEA's role in information services is multi-faceted. It maintains more than 200 computerized files of information [4]. In looking ahead, we can visualize Integration of Power Reactor Information System, Research Reactor Database, Nuclear Fuel Cycle Information System and IRS, as well as application of artificial intelligence. Strengthening global nuclear safety regime could help not only for present generation but for the future regulators.

4. Conclusion

"Multi-channeling" might give regulators a broader view to prevail over non conducive culture and professional territoriality. Sometimes, licensee prefers to stay with Nash strategies at some lower equilibrium of information sharing. If regulator wishes to shift it to a higher level, licensee might show a wish to get subsidized. Efforts should be pursued to facilitate world-wide harmonization of information. There should be some provisions in law for negotiation of regulator (by licensee consent) with vendor to get knowledge unswervingly. Concluding, a multi-channel approach might give a broader view for future regulators.

"If the regulator and regulated are to achieve the nirvana of shared understanding they need to work in a way which enhances the exchange of information – Sue Nelson".

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