

Rec'd 1/26/10
ROB

Gallagher, Carol

From: 최광식 [k083cks@kins.re.kr]
Sent: Tuesday, January 26, 2010 12:55 PM
To: Gallagher, Carol
Subject: Comments on Draft Safety Culture Policy Statement from Korea
Attachments: Comments on safety culture policy statement draft _Jan 27 2010_ Korea.pdf; Comments on safety culture policy statement draft (Jan 27 2010) Korea.doc

Dear Mr. Michael T. Lesar:

This is comments on your draft safety culture policy statement. We are not pretty sure that we, who live in Korea, Republic of, belong to the category of your stakeholders; however, we believe that we could be so because your safety related policy statements will presumably affect the nuclear safety policies of the countries worldwide and therefore we would be also affected as a global citizen by your statement. We would provide comments as attached file (PDF and also MS word file).

We would note that these comments reflect our personal views as global citizens interested in nuclear safety culture and also as stakeholders worldwide, and therefore they should not be regarded as the official comments of the institute(KINS) we are presently affiliated.

We hope our comment could be some help for your efforts in preparing good safety culture policy statement of NRC, which could substantially affect safety policies of other countries.

Best regards,

Kwang Sik Choi, Ph.D. Korea Institute of Nuclear Safety
Young Sung Choi, Ph.D. Korea Institute of Nuclear Safety

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SUNSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Cdd = A. Saproontzis
(aps)

Comments on Draft Safety Culture Policy Statement

Dear Mr. Michael T. Lesar:

This is comments on your draft safety culture policy statement. We are not pretty sure that we, who live in Korea, Republic of, belong to the category of your stakeholders; however, we believe that we could be so because your safety related policy statements will presumably affect the nuclear safety policies of the countries worldwide and therefore we would be also affected as a global citizen by your statement. We would provide comments as follows:

Firstly, on your question (4) regarding definition of safety culture, you adopted in your draft statement the definition of safety culture in INSAG-4(1991) and slightly modified it. Since the publication of INSAG-4, there has been much progress in the areas of how to understand safety culture, what practical action could be implemented for its enhancement, how to define the role of regulator, and so on. As was already explained in several literatures, safety culture can be more systematically understood with the three-level model (artifacts, espoused value and basic assumption) of organizational culture (corporate culture) suggested by Dr. Edgar Schein, on which IAEA's guidebook and training materials are based.

The IAEA's adoption of Schein's model which includes espoused values and basic assumptions is appropriate in the development of safety culture concept because 'safety culture' is the subculture of organizational culture (or corporate culture) related to nuclear safety and it may also tell us how difficult to measure and develop safety culture from the perspective of deep and stable drivers of culture, i.e., basic assumptions and espoused values.

The draft policy statement defines the safety culture as 'that assembly of characteristics, attitudes and behaviors in organizations and individuals...'. Here, characteristics need to be clarified, although it is understood as overarching components identified from particular artifacts, espoused values and basic assumptions that are associated with safety. It is our opinion that it would be better if explicit emphasis on basic assumptions is included in the definition or somewhere in the policy statement. It is because the attention to them would be beneficial from the points that there might be difficulties and long lead-time required to change culture and, thus, more strenuous efforts and subtle methods are needed to do so.

With the above mentioned points in mind, licensees and also regulators can prepare measures for improving the values they share and also the basic assumption they own. We would like to inform that in Korea, the approach of sociodrama among licensees, regulators and the public have been tried and implemented to improve the value they share and also the basic assumptions with various psycho-dramatic techniques such as role reversal, doubling, etc.

Secondly, on your question (1), we think that an important characteristic of positive safety culture is '*the organization recognizes their facilities and activities to have potential risks of leading to severe accident anytime*'. This is, in a sense, similar to the first characteristic of 'safety ownership' addressed in your draft policy statement although it is more straightforward and explicit to touch the basic assumption. In Korea, that assumption is emphasized at educations on safety culture, which have been organized by regulator's initiative and held once every year in each nuclear facility site. It is important to alert the licensees and also regulators to have their basic assumption more aligned with nuclear safety, as their basic assumption have

presumably been deteriorated due to the perceived good safety performance so far. It is our belief that the wide spread term 'Nuclear Renaissance' itself is a symptom of complacency.

For instance, the assumption that severe nuclear accident would not occur any more at modern NPPs with safety features of prevention and mitigation of accidents seems to be widely spread and consolidated among operating organizations and, what is worse, also among nuclear regulators, due to the good (safety) performances so far after the Chernobyl accident.

Third point is with regard to your question (6). Licensees in the materials area are not likely to be accustomed to safety culture which originated from power reactor area. In addition, most of material licensees are small business owners which have limited resources. Thus, we think that they might be reluctant to do something regarding safety culture. To relieve them from the concerns about costs that they perceive to incur much when acting on the safety culture policy statement, it would be helpful to give them some hints about development/evolution stages of safety culture. Then, they may identify their present status and set up goals to be directed, and also they can make near-, mid- and long-term plans with their resource constraints.

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