EFCOG Webpage FAQ Outline

1. **What is the definition of Safety Culture?**

   The Department of Energy (DOE) G 450.4-1C, DOE (Integrated Safety Management System (ISMS) Guide) defines safety culture as:
   > "an organization's values and behaviors modeled by its leaders and internalized by its members, which serve to make safe performance of work the overriding priority to protect the workers, public, and the environment."

2. **How are Safety Culture, Organizational Culture, and Safety Conscious Work Environment Related?**

   See Figure 1.; Safety Culture is a part of overall organizational culture, and Safety Conscious Work Environment (SCWE) a part of Safety culture, which the Department of Energy (DOE) defines as "*A work environment in which employees feel free to raise safety concerns to management (or a regulator) without fear of retaliation.*" (DOE G 450.4-1C)

   SCWE attributes are included within the safety culture attributes identified in DOE G 450.4-1C, Attachment 10.

   All three are interrelated; SCWE will influence your Safety Culture and Organizational Culture.

3. **What is the history of Safety Culture at the DOE?**

   DOE committed itself to establishing and maintaining a strong nuclear safety culture in 1991through Secretary of Energy Notice SEN-35-91, Nuclear Safety Policy.

   Several industry events resulted in the issuance of DNFSB Recommendation 2004-1. In response to this recommendation, the DOE issued an ISMS Manual (DOE M450.4-1) which included new supplemental safety culture elements. These safety culture elements were intended to capture lessons learned from various industry events and experience. Initially, DOE only held itself to the new principles, with the intent of reviewing that effort and potentially extending them to the contractors as well. Based on review of external operating experience and internal DOE complex performance data, as well as the supplemental safety culture elements, a compelling case existed for applying these new safety culture characteristics across the complex, in order to provide a significant positive impact to overall effectiveness of ISMS.

   In 2007, the DOE Office of Health, Safety and Security (HSS) and the DOE ISM Champion Council identified safety culture as one of their top ISMS related priorities. The EFCOG ISMS Working Group was responsible for safety culture as a functional area. Through this Subgroup, a joint DOE/EFCOG sponsored ISMS Safety Culture Task Team (The Team) was formed to address this issue. The Team identified a consensus set of safety culture principles, along with implementation practices that could be used by DOE, NNSA, and their contractors. The Team consisted of a diverse group of senior leaders representing major DOE and NNSA contractors, subject matter expert advisors, and DOE and NNSA personnel. (Reference to DOE is also intended to include NNSA and its contractors.) The goal of this effort was to achieve an improved safety culture thru ISMS continuous
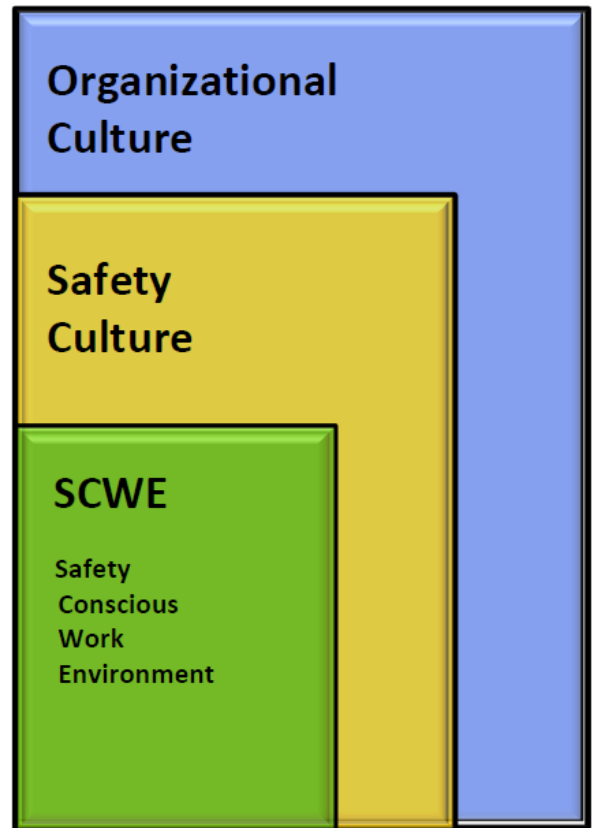
improvement building on operating experience from similar industries such as the domestic and international commercial nuclear and chemical industry. The final report was issued in 2010.

Implementation practices identified by the team proactively enhanced previously existing ISMS Guiding Principles in the areas of leadership, employee/worker engagement, and organizational learning. These enhancements were consistent with the latest safety improvements in the commercial nuclear industry (INPO), the International Atomic Energy Agency, high reliability organizations, DNFSB Recommendation 2004-1, and other related experience. These enhancements were intended to apply to DOE as well as contractor personal.

EFCOG formed the Safety Culture Subgroup in 2010 to help ensure effective roll out and share lessons learned on the Safety Culture attributes issued in 2010.

Defense Nuclear Facilities Safety Board (Board) Recommendation 2011-1, Safety Culture at the Waste Treatment and Immobilization Plant, issued on June 9, 2011. This commitment was reiterated and confirmed in February 2011, in DOE Policy 420.1, Department of Energy Nuclear Safety Policy. Establishment of a strict safety culture must be a fundamental principle throughout the DOE complex, and we are in unqualified agreement with the Board that the WTP mission is essential to protect the health and safety of the public, our workers, and the environment from radioactive wastes in aging storage tanks at Hanford.

Related to the DOE response to DNFSB Recommendation 2011-1, In 2011, the ISMS Guide Attachment 10 was issued which incorporated the EFCOG model finalized in 2010.

As part of the response to the Recommendation 2011-1 DOE developed and conducted a new safety culture training course for senior managers (NTC SAF 200), training over 2000 managers. A new course was developed by DOE in 2017 to train first line managers on safety culture (NTC TLP-150)

4. **What is the Energy Facilities Contractors Group (EFCOG), and how is it involved in Safety Culture?**

EFCOG promotes excellence in all aspects of the operation, management, and integration of DOE facilities in a safe, environmentally sound, efficient and cost-effective manner through the ongoing exchange of information on lessons learned. EFCOG became directly involved in safety culture in 2007 through the ISMS Working Group. A joint DOE/EFCOG task team was formed in 2008 to establish an ISMS safety culture model for the DOE contractor community. After the product of that team was released in early 2010, an EFCOG Safety Culture Subgroup was created which is still in operation today.

5. **What are the DOE attributes of a strong Safety Culture?**

The three key safety culture focus areas and their associated attributes are:
- Leadership
  - Demonstrated safety leadership
  - Risk-informed, conservative decision making
  - Management engagement and time in field
  - Staff recruitment, selection, retention, and development
  - Open communication and fostering an environment free from retribution
  - Clear expectations and accountability
- Employee/Worker Engagement
  - Personal commitment to everyone's safety
  - Teamwork and mutual respect
  - Participation in work planning and improvement
 - Mindful of hazards and controls

- Organizational Learning
  - Credibility, trust and reporting errors and problems
  - Effective resolution of reported problems
  - Performance monitoring through multiple means
  - Use of operational experience
  - Questioning attitude

These safety culture focus areas and associated attributes are elaborated upon in Attachment 10 of DOE G 450.4-1C.

6. **How does Safety Culture relate to the Integrated Safety Management System (ISMS)?**

   It is an integral part of the ISMS; reference Attachment 10.

   In the context of ISMS, it is important to recognize that the term "safety" within the context of ISMS has a much broader definition than industrial safety. Safety within ISMS includes all types of hazards, including, but not limited to, chemical, physical, biological, ergonomic, environmental, nuclear, electrical, and transportation. Therefore, it is not needed or even advisable to further enhance the term "safety" culture with descriptors such as "nuclear" safety culture which suggests a narrower focus than what was intended in the broad ISMS context.
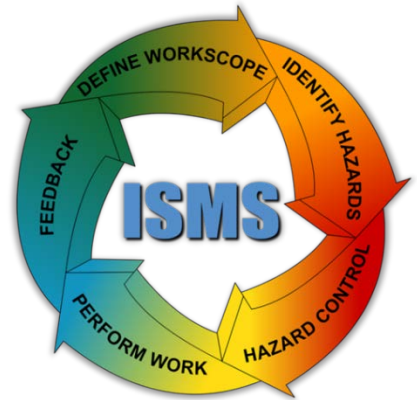
7. **What other models for Safety Culture are there, and how are they related?**

   There is only one current model: the Nuclear Regulatory Commission (NRC) Institute for Nuclear Power Operations (INPO) has the "Traits of a Healthy Nuclear Safety Culture" (INPO 12-012) which are similar to the DOE Safety Culture Focus Areas and Attributes. If you encounter references to "10 traits" that appear similar to the DOE Focus Areas and Attributes, these are likely based on INPO materials.

8. **What can I find further EFCOG guidance and Safety Culture?**

   Check the EFCOG Bibliography!

9. **I've been asked to perform a Safety Culture survey – where can I find guidance/resources? (Contract the 3 questions into a single question).**

   For EFCOG guidance on surveys, see the EFCOG Best Practice 181.

   For additional resources, check out our EFCOG Bibliography, and specifically the Guide for Developing and Using Safety Culture Questionnaires.

10. **I've been asked to do a Safety Culture Assessment – where can I find guidance/resources?**

   For EFCOG guidance on initial base-lining, see the EFCOG - A Guide to Safety Culture Evaluation Sept 2015.

   For additional resources, check out our EFCOG Bibliography, and specifically the Guide for Collecting and Analyzing Qualitative Data for Safety Culture Evaluations. Add link to the EFCOG guides.

11. **I've been asked to monitor my organization's safety culture, including development of metrics – where can I find guidance/resources?**

    For EFCOG guidance on developing metrics and other monitoring mechanisms, see the EFCOG Best Practice 181 and EFCOG - Guide to Monitoring and Improving Safety Culture April 2017

    For additional resources, check out our EFCOG Bibliography.

12. **What groups should I be interfacing with that will have information or impact on my organizations' safety culture?**

    Examples of programs and processes that are related to a healthy Safety Culture include:
    - Corrective Action/Issues Management Process
    - Operating Experience process
    - Assessment Process
    - Management field observation process
    - Differing Professional Opinions (DPO)
    - Human Resources/Disciplinary
    - Employee Concerns Program (ECP)
    - Human Performance Improvement (HPI)
    - Integrated Safety Management Systems (ISMS)
    - Price Anderson Amendment Act (PAAA)
    - Occurrence Reporting
    - Voluntary Protection Program (VPP)
    - Work Planning and Control Process
    - Conduct of Operations Program
    - Training Program

13. **Where can I go for training?**

    The DOE has TLP-series training available to employees working in the DOE complex through the National Training Center (NTC). DOE TLP 200, and DOE TLP 150 are current training courses supporting safety culture.

14. **I have questions that weren't addressed in this FAQ – where can I go?**

    The DOE's Safety Culture Improvement Panel (SCIP) is devoted to promoting safety culture across the complex; more information can be found on the Powerpedia SCIP page.

    There is also an OrgEx webpage for the community of practice to discuss challenges and share ideas.