

Pre-Conference Panel and Workshop on Enhanced Mission Delivery Initiative (EMDI) – The Field Perspective

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Basis for Perspective and Observations

- Sandia National Laboratories (Albuquerque, New Mexico)
 - 1977 – 1994: Operated by AT&T Bell Labs
 - 1994 – 2005: Operated by Lockheed Martin Corporation (LMC)
- Atomic Weapons Establishment (Aldermaston, UK) [Lab and Plant]
 - 2006 – 2009: AWE plc, Operated by AWEML LLC (LMC, BNFL, Serco, Jacobs)
- NNSA Defense Programs, NA-10 (Government)
 - 2010 - 2015

Top-level summary of EMDI recommendations

- Modify contractual model: Longer terms, performance-based extensions; less emphasis on fee and unnecessary re-competitions.
- Allow M&Os to manage workforce salaries and benefits.
- Delegate decision authority to Field Offices and M&Os.
- Enable and aid transfers and temporary postings of people across sites.
- Decrease low-level federal management. Increase high-level Fed/M&O agreements.
- Develop integrated ST&E investment plan.

If executed, these can make a dramatic improvement in productivity.

Next up: The Challenge of Execution

- Making hard decisions in government is hard.
- There is nearly zero incentive in the Federal workforce to take risk. Good staff and managers do it in the interest of programmatic outputs, not enhancement of their careers.
- It has often felt to me as though the Forrestal Building has a personality of risk aversion all of its own. It has seemed that if everyone left at once and an entirely new team came in, the personality would be the same.
- However, this is not the case with the present NNSA team and the EMDI. Some planning is done. Now, it is time to execute and move forward. Execution is difficult. Delays will relegate the plan to the dustbin. We have already passed the half-way point on the first Biden administration.

Decisions with Large Shadows – 3 Challenges

- **Challenge #1:** Where possible, move to commercial and industrial standards in all non-nuclear activities.
 - Amb. Linton Brooks, NNSA Administrator in 2004-7, approved the “Kansas City model” for operations at the Kansas City Plant (KCP), permitting KCP to manage its operations using commercial (e.g., OSHA) and industrial standards (e.g., ISO 2000, 9000, 14000) rather than DOE orders. What ensued was a success – safe operations continued and productivity increased. Industrial standards and international standards generally improve with time; DOE orders generally do not.
 - The next steps could be taken now at Sandia/NM, Sandia/CA, and LLNL, all of whom have limited nuclear operations and risks.

Decisions with Large Shadows – 3 Challenges

- **Challenge #2:** Migrate from ALARA (As Low As Reasonably Achievable) to ALARP (As Low As Reasonably Practicable).
 - There is a difference between current US/DOE and UK/MoD nuclear practice. In my view, the UK, which has less money due to a smaller tax base, thinks more deeply about expenditure of money. Terms such as “Value for Money” (VfM) and “Fit for Purpose” (FfP) are widely used in the UK, and rarely in the US. This shows abundantly in the cost and effectiveness of nuclear operations in the two nations. The view that standardization is the highest ideal is false. Fitness for Purpose is the highest ideal.
 - In my experience, people at the labs, plants and nuclear regulators are all well-trained. I was pleased to see the level of nuclear engineering training in the professional staff of the UK/NII (now NSR) and in the US/DNFSB. But at the political level, posturing occasionally got in the way of good practice. We can all do better if we follow ALARP principles.
 - The next immediate step in understanding of US and UK practices for management of nuclear materials and nuclear operations could be taken now under US/UK Mutual Defense Agreement auspices by convening a workshop among NNSA, MoD, DNFSB and NSR at Level 2.

Decisions with Large Shadows – 3 Challenges

- **Challenge #3:** Adopt, publicize, and follow the “Vic Stello” Rule
 - In 1990, I wound up sitting on a library step-stool in front of Vic Stello’s desk. This was in the early days of DOE Secretary James Watkins’ “Tiger teams”. As manager of the largest pulsed power facility at Sandia (known as Z today), I saw the questions a tiger team in training was asking of our workers. I elected to take a “cessation of operations” (aka “safety pause”) to do extensive housekeeping around the still-new accelerator. When I wanted to re-start, I was told that only DOE could approve a restart. So I traveled to DOE and got an earful. **[More of this story will be stated in person.]** In the end, Vic Stello (fmr NRC, and deputy to the Assistant Secretary of Defense Programs (pre-NNSA) agreed to the principle that ***“If DOE needs to shut down a facility, it is the prerogative and obligation of DOE to approve a startup, but if a manager at an M&O decides to take a “safety pause”, the authority to approve a restart remains in the hand of that M&O manager.”*** This approach underpins safety in operations. If a manager at an M&O believes that if he/she shuts down a facility for a safety pause, but only DOE can approve a restart, it is likely that needed safety pauses would become extinct. [Cf., PF-4 shutdown, for example]
 - The italicized text is attributed to Vic Stello in honor of his making a hard decision while in government. Let’s just call it the “Stello rule”.

Summary

- Good planning on the Enhanced Mission Delivery Initiative (EMDI) has been done. NNSA deserves credit for this.
- Now the hard job of execution begins, and there is no time to waste.
- It is not only NNSA that must act.
- The M&Os at the sites need to be aggressive in proposing changes that support the thrust of the initiative.
- The Site Offices need to step forward in working higher level agreements with the M&Os and begin to reduce lower-level federal management.
- EVERYONE needs to join in on crafting workable changes while there is a supportive NNSA leadership team in place. Time is limited!