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Managing New Contractors to the 10 CFR 851

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Overview

DOE Contractors are all aware that the expectation for work execution is high at DOE facilities. The 10 CFR 851 contains both different and enhanced elements from the standard OSHA construction requirements. DOE contractors also must work with a transient work force and we have a limited time to develop the knowledge of new work practices and change a safety culture.



How Should We Manage This Concern?

The most effective means to discover each contractor's understanding is to validate the construction contractor's administrative procedures (Safety Plan) and field conditions.

- Challenging an established well structured program by requiring new elements can be an obstacle for contractors
- There is a need to validate the company's safety record and competent person's knowledge
- Work Planning and Control – there is a wide range of understanding within the contracting community of this activity.

What are some Key Differences?

- Unique hazards such as Beryllium, Explosives and Radiation
- DOE 1090 Hoisting and Rigging Standard
- NFPA 70E – difference between required verses guide
- ACGIH TLVs BEIs – Often different than OSHA/NIOSH PEL
- Heat Stress
- Superintendent duties
- Accident Scene preservation
- Occurrence Management System
- Office of Enforcement

Check Administrative Processes

The review of the Contractor's Safety Plan is an important element of this process

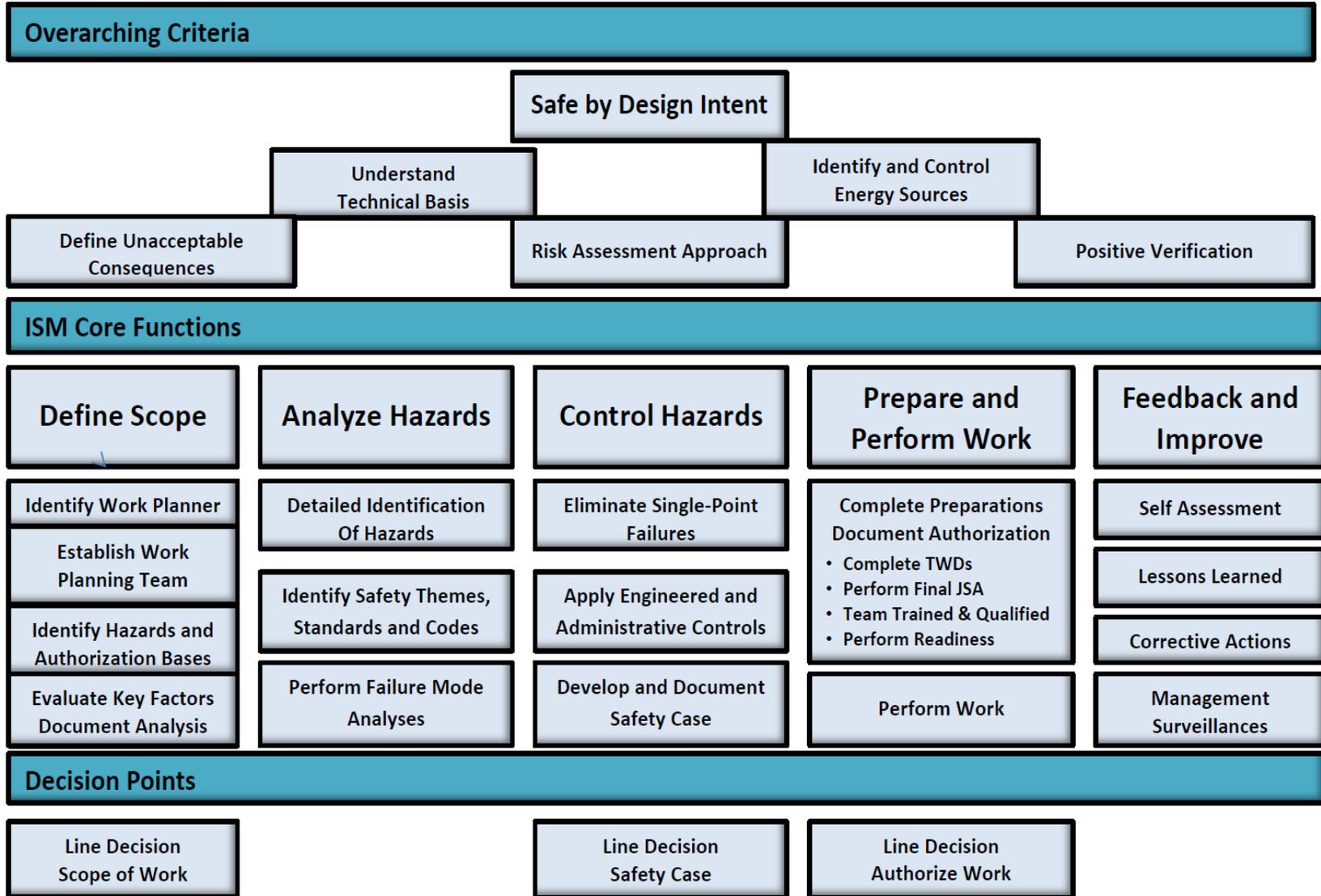
- Each ES&H discipline (Safety Engineering, Industrial Hygiene, Radiation Protection, Environmental, and Waste) needs to understand the scope of work and the proposed controls by the contractor
- The DOE Contractor needs to know how they address “changes in condition”
- Do they have a good knowledge of the site's permit processes?

Validate Field Conditions

The construction contractors are not aware that the specific work practices that are unique to 10 CFR 851 may take time to grasp fully

- Use the project schedule to anticipate the known hazards that are different than the standard industrial hazards
- Use a database to track trends in ES&H compliance

Work Planning and Control/ISMS



Unique hazards such as Beryllium Explosives and Radiation

Construction contractors can have minimal understanding of these hazards and the importance of the controls

- Training to the specific site hazards is essential for awareness
- Signage can be different, construction personnel are not accustomed to signs that change wording
- Construction contractors often do not view latent hazards as real.



DOE 1090 Hoisting and Rigging Standard

There are differences in the OSHA 29 CFR 1926 subpart N and the DOE 1090 Standard

- Inspect rigging/crane prior to work- suspect counterfeit
- Interview the competent person



- Share these resources with your contractors:
 - DOE Standard 1090-2011 - <http://energy.gov/sites/prod/files/2013/06/f1/DOE-STD-1090-2011.pdf>
 - Crosby Group - <http://www.thecrosbygroup.com/>
 - Wire Rope Users Manual

NFPA 70E

All new contractors state that they follow the Standard for electrical safety in the workplace, however many of them do not own the standard

- Review documentation closely and ensure it is flowed down to all subcontractors and manufacturers representatives
- Field verify work practices – PPE, Lockout/Tagout, Test equipment
- Use analysis to minimize exposure to workers through engineering and work practices

NFPA 70E (continued)

- Ensure the new electrical and control contractors have a strong understanding of the requirements prior to their field investigation
- Many contractors on large jobs try to protect apprentices from energized parts by conducting LOTO for them and not engaging them in the process

ACGIH TLVs and BEIs

American Conference of Governmental Industrial Hygienist

Examples of differences between PEL and TLV

Chemical	OSHA PEL	2005 ACGIH TLV (10 CFR 851)	Current ACGIH TLV
Crystalline silica	~ 0.1 mg/m ³	0.05 mg/m ³	0.025 mg/m ³
Manganese	5 mg/m ³	0.2 mg/m ³	0.1 mg/m ³ inhalable size fraction; 0.02 mg/m ³ respirable fraction
Hydrogen sulfide	20 ppm ceiling	10 ppm (8 hr); 15 ppm STEL	1 ppm (8 hr); 5 ppm STEL
Copper fume	0.1 mg/m ³	0.2 mg/m ³	0.2 mg/m ³
Hexavalent chromium	5 µg/m ³	50 µg/m ³	50 µg/m ³ water soluble; 10 µg/m ³ insoluble

Most construction contractors don't conduct air sampling and some do not utilize certified laboratories

Heat Stress

OSHA has no thermal stress standard

- The ACGIH can be very difficult for some contractors to understand and many construction personnel do not have the equipment to monitor conditions
- The weather conditions and instrumentation needs professional interpretations

Superintendent

- During periods of active construction i.e., (excluding weekends, weather delays, or other periods of work inactivity), the construction contractor must have a designated representative on the construction worksite who is knowledgeable of the project's hazards and has full authority to act on behalf of the construction contractor.
- The contractor's designated representative must make frequent and regular inspections of the construction worksite to identify and correct any instances of noncompliance with project safety and health requirements

Accident Scene Preservation

NNSA/DOE flows down Order (O) 225.1B, Accident Investigations the accident scene preservation and causal analysis to the host sites

- New construction contractors will not generally understand the need for this requirement and the large contractors are accustomed to providing their own accident investigations.
- While DOE Contractors desire to accurately determine what happened in order to take corrective actions, the contractor's are trained to correct the problem and move on quickly.

Occurrence Management System

Many of the Occurrence Management reporting Criteria are not an ES&H trigger for general construction work

- Certain injuries are not tracked in the general contracting community
- Fires are often not given attention on green field projects
- Lockout tagout or unexpected discovery of a hazardous energy are often viewed differently when construction contractors are focused on 1910.147
- An electrical shock is often not reported
- Suspect counterfeit parts are not given high priorities
- Issues with Safety Structure/System/Component are addressed differently

Office of Enforcement

- While all construction contractors are accustomed to OSHA and the regulatory activities associated with this agency. Most contractors are not accustomed to the more frequent oversight to monitor field conditions. This frequent oversight will often expose a greater volume of non-compliances.
- The Office of Enforcement does not utilize interpretation letters for complex regulations.

Many contractors are not vested in the complete success of the details of 10 CFR 851

- Large and small construction contractors generally have a different paradigm.
 - The large contractors may administratively meet requirements, however the flow down to subcontractors is often less than adequate
 - Small contractors struggle to maintain qualified personnel. They may not have the ability to conduct some tasks such as personnel monitoring rigging inspection, etc.

Conclusion

Ensure you understand the work, conduct your gap analysis between administrative and field practices to the 10 CFR 851.

Set clear expectations in your requirements to the contractors.

One-on-one interactions are required to interpret important and less used requirements.

Then set up your oversight management system to manage the risk.

Score your contractors when work is complete.