Lawrence Livermore National Laboratory

LLNS Request for Variance from 10 CFR 851 for Construction of LLNL Digital Infrastructure Capabilities Expansion Project

March 4, 2022

Request for Exemption to Subparts B and C, and Appendix A of 10 CFR 851 for the Digital Infrastructure Capabilities Expansion Project

Lawrence Livermore National Security, LLC (LLNS) requests variance to 10 CFR 851 (the Rule) for the construction of the Digital Infrastructure Capabilities Expansion (DICE) project. The request isin continued support of the National Nuclear Security Administration (NNSA) "pilot" to streamline the delivery of commercial-like line-item construction projects under $50 million.
This pilot is aligned with the approved NA-50 safety approach.

Experience gained in the construction of the new Lawrence Livermore National Laboratory (LLNL) Emergency Operations Facility (EOC) under the variance granted in June 2020 is very encouraging. While detailed analysis will be forthcoming after that project is completed, there are strong indicators that a benefit has been realized by the subcontractors executing the work. The variance has permitted local/regional construction businesses contracted to Management & Operation contractor operated facilities and lower tier subcontractors to bid, operate, execute, and comply with safety and health standards they utilize in their business outside of the Department of Energy (DOE) Complex. While compliance to standards that are as safe and healthful as those in 10 CFR 851: confusion, additional cost, and inefficiencies associated with the burden of compliance to an unfamiliar regulatory spectrum has been avoided. Safety and health performance on the EOC construction project including the number of inspection and surveillance issues is comparable to other subcontractors and projects at LLNL executed under 10 CFR 851.

The variance application was prepared according to the requirements in 10 CFR 851, Subpart D – Variances, § 851.31 Variance Process. This request is limited to the DICE construction project at the LLNL.

To recap, the core of the variance granted in June 2020 is using Cal/OSHA regulations and other applicable California regulations, as a means to comply with Subparts B and C, and Appendix A of 10 CFR 851. The state of California has a comprehensive state plan and occupational standards that meets and, in many respects, exceeds the requirements of Federal OSHA standards. Where the Cal/OSHA or other applicable California regulations are silent, LLNS incorporates the requirements from 10 CFR 851 to provide workers a place of employment, which is as safe and healthful as under 10 CFR 851.

As with the EOC project, the DICE project, regulatory requirements covered by California regulations and 10 CFR 851 will be incorporated into an Injury and Illness Prevention Program (IIPP), for approval by the appropriate Head of DOE Field Element. The IIPP identifies how LLNS and LLNS construction subcontractors comply with those sections of Subparts B and C, and Appendix. A. In effect, LLNS would be authorized to use alternative means to comply with Subparts B and C, and Appendix A.

10 CFR 851 Subparts A (General Provisions), D (Variances), E (Enforcement), and Appendix B (Enforcement Process) are not included in this variance request and remain in effect. The DOE/NNSA remain as the sole regulators of the activities conducted in accordance with this variance.

As required by 10 CFR 851.31(d)(2), this request shows how the compliance with Cal/OSHA requirements for this project would provide workers a place of employment which is as safe and healthful as would result from compliance with the requirements of 10 CFR 851; where compliance with the Cal/OSHA provisions is determined by LLNS and the subcontractor to be of benefit to project execution.

1. **Name and address of the Contractor**:
   Lawrence Livermore National Security, LLC (LLNS)
   2300 First Street, Suite 204
   Livermore, CA 94550

2. **Name and address of DOE site or sites Involved**:
   Lawrence Livermore National Laboratory
   7000 East Avenue
   Livermore, CA 94550

3. **A specification of the standard, or portion thereof, from which the contractor seeks a variance:** 10 CFR Part 851, *Worker Safety and Health Program*

Subpart B—Program Requirements

- § 851.10 General requirements
- § 851.11 Development and approval of the worker safety and health program
- § 851.12 Implementation
- § 851.13 Compliance

Subpart C—Specific Program Requirements

- § 851.20 Management responsibilities and worker rights and responsibilities
- § 851.21 Hazard identification and assessment
- § 851.22 Hazard prevention and abatement
- § 851.23 Safety and health standards
  - § 851.23(a)(2), 29 CFR Parts 1904.4 -11, 1904.29 - 33, and 1904.46, *Recording and Reporting Occupational Injuries and Illnesses*
  - § 851.23(a)(3), 29 CFR Part 1910, *Occupational Safety and Health Standards,* excluding 29 CFR 1910.1096, *Ionizing Radiation,* and 29 CFR 1910.1000, *Beryllium*
  - § 851.23(a)(4), 29 CFR Part 1915, *Shipyard Employment*
  - § 851.23(a)(5), 29 CFR, Part 1917, *Marine Terminals*
  - § 851.23(a)(6), 29 CFR, Part 1918, *Safety and Health Regulations for Longshoring*
  - § 851.23(a)(7), 29 CFR 1926, *Safety and Health Regulations for Construction*
  - § 851.23(a)(8), 29 CFR, Part 1928, *Occupational Safety and Health Standards for Agriculture*
  - § 851.23(a)(9) *ACGIH® Threshold Limit Values and Biological Exposure Indices* (2016), when the ACGIH® Threshold Limit Values (TLVs) are lower (more protective) than permissible exposure limits in 29 CFR part 1910 for general industry and/or part 1926 for construction. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with the other provisions of any applicable expanded health standard found in 29 CFR part 1910 and/or part 1926
  - § 851.23(a)(10) American National Standards Institute (ANSI/ASSE) Z88.2, *American National Standard Practices for Respiratory Protection*, (2015)
  - § 851.23(a)(11) ANSI Z136.1, *Safe Use of Lasers*, (2014)

§ 851.23(a)(12) ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes*, sections 4.3 and E4.3 (2012)

§ 851.23(a)(13) National Fire Protection Association (NFPA) 70, *National Electrical Code*, (2017)

§ 851.23(a)(14) NFPA 70E, *Standard for Electrical Safety in the Workplace*, (2015) (incorporated by reference, see §851.27)

§ 851.24 Functional areas

§ 851.25 Training and information

§ 851.26 Recordkeeping and reporting

Appendix A—Worker Safety and Health Functional Areas

1. Construction Safety
2. Fire Protection
3. Explosive Safety
4. Pressure Safety
5. Firearms Safety
6. Industrial Hygiene
7. Biological Safety
8. Occupational Medicine
9. Motor Vehicle Safety
10. Electrical Safety
11. Nanotechnology Safety—Reserved
12. Workplace Violence—Reserved

4. A description of the steps that the contractor has taken to inform the affected workers of the application, which must include giving a copy thereof to their authorized representative, posting a statement, giving a summary of the application and specifying where a copy may be examined at the place or places where notices to workers are normally posted:

In drafting the original application for the EOC variance, LLNS held meetings January 10, 2020 through January 13, 2020 and January 28, 2020 with key LLNS stakeholder groups, DOE/NNSA Field Element, NNSA programs officials, LLNS Procurement, LLNS Project Management, LLNS Environment, Safety and Health (ES&H), and other groups associated with the management of construction of the new EOC, to ensure all were informed of the variance application and its content. LLNS shared the variance concept, objective, and goals with these groups and allowed for questions and answers. LLNS will do the same with the same parties for the DICE construction project.

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This request for variance is being made prior to the selection and mobilization of subcontractors who will execute the construction of DICE. Thus, at this time, there are no subcontractor workers that this variance request pertains to are engaged in construction activities related to the DICE. All current workers are LLNS employees who are now and will continue to be in the future, covered under the LLNS DOE approved Worker Safety and Health Program. However, before

construction starts, the affected workers and key stakeholder groups including unions, will be informed of the variance and its content. Copies of the variance will be made available to all staff/craft and their authorized representatives by posting them at places where notices are normally posted and a copy provided to their authorized representatives to ensure all affected worker are given the opportunity to review this variance. The affected workers and stakeholder groups will be informed of their rights to petition the Under Secretary for Environment, Health, Safety and Security regarding the variance.

Once full project complete status of the DICE is declared, the IIPP will no longer be applicable and the facility will be occupied and operated in accordance with the existing approved Lawrence Livermore National Security (LLNS) 10 CFR 851 Worker Safety and Health Program (WSHP).

5. A description of how affected workers have been informed of their right to petition the Associate Under Secretary for Environment, Health, Safety and Security or designee for a conference:

At the time of this request there are no workers engaged in construction activities related to the DICE. This variance application is being made prior to subcontractors or their workers being mobilized. Consistent with the requirements of 10 CFR 851, once subcontractors and their workers are mobilized to initiate construction, the workers will be informed of this variance and their right of redress, petition, and request for conference as well as other rights and responsibilities found in 10 CFR 851 Subpart A (10 CFR 851.10 Worker Rights). This right and responsibility will be presented as a part of General Site Training, posters, and bulletin board posts, and as a periodic topic of daily toolbox safety meetings.

6. **Any requests for a conference:** None currently.

7. **Type of variance:** Permanent, for the construction of DICE project until project completion.

a. **A description of the conditions, practices, means, methods, operations, or processes used or proposed to be used by the contractor**:

In performing its mission, LLNS is required to comply with the provisions in 10 CFR Part 851, *Worker Safety and Health Program*. This regulation establishes the framework for a worker protection program that will reduce or prevent occupational injuries and illnesses, and accidental losses by requiring DOE contractors to provide their employees with safe and healthful workplaces.

LLNS is seeking permanent variance to 10 CFR part 851 Subparts B and C, and Appendix A for the DICE project.

As with the prior EOC project LLNS proposes to establish, implement, and maintain an effective IIPP for the construction of the DICE facilities as required by Title 8, California Code of Regulations, Section 3203 (8 CCR § 3203) instead of the provisions in Subpart B, and to comply with applicable Cal/OSHA regulations in lieu of the requirements in 10 CFR 851 Subpart C and Appendix A. The IIPP will have the same intention as the WSHP required by 10 CFR 851– namely, providing an environment that is safe for workers and instills the principles of Integrated

Safety Management. Because of this shared goal, there is substantial overlap between the two sets of regulations. Contractors to which this variance may be applied will be required to maintain compliance to Title 8 CCR §3203, where applicable.

LLNS acknowledges that there are portions of Subparts B and C, and Appendix A that are not entirely nor adequately covered by Cal/OSHA regulations. Specific to address those areas, LLNS will establish an IIPP per 8 CCR § 3203 and incorporate either those sections of the Rule, or a protective equivalent of 10 CFR 851 into the IIPP, as needed, to provide as safe and healthful level of protection. In instances where a hazard or a program requirement specified by the Rule is not expected to be encountered in the scope of work and is not addressed by Cal/OSHA regulations, a gap will be noted and this element reserved in the IIPP. Should the hazard or program requirement be encountered then the reserved section of the IIPP will be addressed by the LLNL DOE approved Worker Safety and Health Program equivalent element. As such, LLNS will use the combination of Cal/OSHA regulations and requirements within the IIPP as a means to comply with Subparts B and C, and Appendix A. To be clear, this variance, if granted, would not constitute LLNL's or NNSA's consent or submission to Cal/OSHA jurisdiction.

Once full project complete capability is declared, the IIPP will no longer be applicable, and the facility will be occupied and operated in accordance with the existing approved LLNS 10 CFR 851 WSHP.

To reiterate the previous commitments and agreements vital to the variance granted June 15, 2020, we incorporate Tables 1 - 3 (Attachments 1, 2, and 3) identify Cal/OSHA regulations that meet the approval criteria in 10 CFR 851for the DICE project request. In addition, these tables identify areas that do not adequately meet the approval criteria and therefore, LLNS will supplement the IIPP with these requirements creating an as safe and healthful level of protection.

b. **A statement showing how the conditions, practices, means, methods, operations, or processes used or proposed to be used would provide workers a place of employment which is as safe and healthful as would result from compliance with the standard from which a variance is sought**:

As with the EOC project, LLNS proposes to use Cal/OSHA regulations as a basis for its worker safety and health program for the construction of the DICE facilities as allowed for under the approved NA-50 safety approach." The OSHA Act requires state plans approved by the Secretary of Labor to be "*at least as effective in providing safe and healthful employment and places of employment*" as OSHA. California has implemented and maintained an approved state plan since 1973. Therefore, the use of Cal/OSHA regulations will continue to provide workers a place of employment, which is as safe and healthful as the OSHA regulations incorporated by reference in 10 CFR 851.

Specific to 10 CFR 851 Subpart B: DOE recognized the importance of a comprehensive worker safety and health program (WSHP) to provide structure and guidance for contractor's safety programs and added this requirement to 10 CFR 851. Cal/OSHA however also recognized the importance of comprehensive worker safety and health programs, and subsequently established a requirement in 1991 for employers to develop such programs. Title 8, California Code of Regulations, § 3203 (8 CCR § 3203) requires employers to "*establish, implement and maintain*

an effective Injury and Illness Prevention Program…" In this regard, the Cal/OSHA requirement to establish, implement, and maintain an effective IIPP is equivalent to the 10 CFR 851 Subpart B requirement to establish a WSHP. As such, the IIPP will continue to provide workers a place of employment, which is as safe and healthful as under 10 CFR 851, Subpart B.

Regarding 10 CFR 851 Subpart C: Cal/OSHA regulations cover many of the requirements within the subparts and appendix. For example, 8 CCR § 3203 includes requirements for hazard identification and evaluation, hazard correction, injury and illness investigation, training, and recordkeeping.
Regarding Appendix A: Cal/OSHA regulations provide workers a place of employment that is equivalent to complying with many of the requirements within the functional areas listed in Appendix A.

Appendix A, section 1, Construction Safety. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3)

Appendix A, section 2, Fire Protection. The standards listed below would provide workers a place of employment which is equivalent to complying with 10 CFR 851.

> CCR 3221 Fire Prevention Plan; 8 CCR 3220 Emergency Action Plan; 8 CCR 3400 Medical Services and First Aid; 8 CCR 3219 Maintenance of Fire Protection Equipment, Materials and Assemblies; 8 CCR Group 27 Fire Protection.

Note: Incorporation of applicable building and NFPA codes and standards is also included in DOE O 420.1C Facility Safety, which is in the Contract No. DE-AC52-07NA27344 to Lawrence Livermore National Security, LLC will be flowed down to appropriate subcontractors

See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 3, Explosive Safety. Not applicable to the scope of construction of the DICE facilities. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 4, Pressure Safety. Not applicable to the scope of construction of the DICE facilities. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 5, Firearms Safety. Not applicable to the scope of construction of the DICE facilities. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 6, Industrial Hygiene. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 7, Biological Safety. Not Applicable to the scope of construction of the DICE facilities. See Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A (attachment 3).

Appendix A, section 8, Occupational Medicine. LLNS will continue to implement these requirements and include them in the IIPP for LLNS employees engaged in the construction project. This will be noted in the IIPP for clarity. However, subcontractors and other workers employed by third party organizations who are covered by their own employer occupational medical programs as required under California law will be excluded from Appendix A, section 8 – Occupational Medicine requirements except as noted in the IIPP where gaps in Cal/OSHA regulations will be filled using the needed 10 CFR 851 Appendix A, section 8 requirement. They will instead follow their own company IIPPs (except as noted above) per the California regulations governing occupational medicine services.

LLNS will continue to include some independent contractors who are not required by California regulations to develop an IIPP and occupational medicine program in its 10 CFR 851 compliant occupational medical program. Based on specific work performed, LLNS may contractually require or extend this specific medical surveillance to third party organizations.

The State of California has robust worker health and safety requirements including requirements for medical surveillance and medical services for workers. For instance, multiple California regulations require various medical exams, screenings or surveillance (e.g., Title 8, CCR 5199.1, 5208, 1529, 5218, 5231, 5193, 5194, 5209, 5203, 5217, 5192, 5191, 5216, 5198, 1532.1, 5097, 5144, 5147, 5153; Title 17, CCR 30277; and Title 3, CCR 6728 and 6760). Additional California regulations require medical services in the event of a workplace injury (e.g., California Labor Code 6400, 4600, 3400, and 3700), and still other regulations address unique medical situations such as alcohol and drug rehabilitation (i.e., California Labor Code 1025 and 1026).

It is a responsibility of LLNS subcontractors working in California to provide appropriate medical services to their workers, and LLNS will continue working with subcontractors, as appropriate, to ensure subcontractors and their workers have the necessary information about LLNS derived hazards to maintain an effective occupational medical services program. However, LLNS and its Site Occupational Medicine Director (SOMD) have no practical ability to monitor all the potential health factors among the cross-section of subcontractors for their work being performed at other sites or their non-work-related illnesses unless such information is voluntarily disclosed. If a subcontractor or their company's occupational health representative identifies a medical restriction of any kind to the LLNS SOMD, consultation services would be provided to determine what, if any, impact that may have on their work activities at LLNS, with the intent of maintaining that worker's safety and well-being.

LLNS will continue to work with subcontractors and continue to make access to worksites and hazard related information available to subcontractors and their medical service providers. As necessary, based on job-specific hazards, LLNS will use contract agreements with subcontractors to ensure appropriate medical services and surveillance are in place to ensure worker safety in a manner that is as safe and healthful as required by 10 CFR Part 851. First aid services will continue to be available to all individuals on-site regardless of their affiliation. Through implementation of applicable California regulations and partnership with LLNS, subcontractor workers will continue to be provided with a place of employment, which isas safe and healthful as under 10 CFR 851.

LLNS acknowledges there are some areas of 10 CFR 851 in Subpart C and Appendix A, which Cal/OSHA or other California regulations do not effectively address. In those instances, LLNS will incorporate the 10 CFR 851 requirements into the LLNS IIPP to fill any gap and to provide a workplace with as safe and healthful level of protection and administer the requirement through the LLNS IIPP.

The requirement for the LLNS IIPP to be approved by the appropriate Head of DOE Field Element annually or in the event of any significant change will remain. The DOE Livermore Field Office (LFO) will inform NA-50 of any such change that impacts this project. Collectively through the application of Cal/OSHA regulations and the LLNS IIPP, through robust partnership between LLNS, and its subcontractors, and through concurrence by the LFO, all workers will continue to be provided with a place of employment, which is as safe and healthful as under 10 CFR 851.

Tables 1 - 3 below identify Cal/OSHA regulations that meet the approval criteria in 10 CFR 851.32(b). In addition, these tables identify areas that do not adequately meet the approval criteria and, therefore, LLNS will supplement the IIPP with these requirements creating an equivalent safe and healthful level of protection.

For completeness, this variance does not seek alternative methods to address other site-specific safety requirements outside of the purview of 10 CFR 851 such as, but not inclusively, Environmental Protection Agency regulations, safeguard and security, or emergency response. LLNS flows site-specific and other requirements to the subcontractors through the contract documents.

Attachment 1

Table 1 – Cal/OSHA Regulations in lieu of 10 CFR 851, Subpart B

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
851.10 General Requirements			
(a) With respect to a covered workplace for which a contractor is responsible, the contractor must: (1) Provide a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers; and (2) Ensure that work is performed in accordance with: (i) All applicable requirements of this part; and (ii) With the worker safety and health program for that workplace. (b) The written worker safety and health program must describe how the contractor complies with the: (1) Requirements set forth in Subpart C of this part that are applicable to the hazards associated with the contractor's scope of work; and	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). (Note: 8CCR3202 is similar to the Fed OSHA General Duty Clause under OSHA Act 1970, Section 5(a)(1) in that Cal OSHA may cite an employer for violating the Injury and Illness Prevention Program standard when a hazard is not covered by a specific Cal OSHA safety order.) 8 CCR 3203(a)(2) Include a system for ensuring that employees comply with safe and healthy work practices.	No gap	Comply with Cal/OSHA regulation as a method of compliance.
(2) Any compliance order issued by the Secretary pursuant to §851.4.	No comparable requirement.	Gap	Incorporate requirement into the IIPP where applicable to the Scope of Work for Facility construction.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
851.11 Development and approval of the worker safety and health program			
(a) Preparation and submission of worker safety and health program. By February 26, 2007, contractors must submit to the appropriate Head of DOE Field Element for approval a written worker safety and health program that provides the methods for implementing the requirements of Subpart C of this part. (1) If a contractor is responsible for more than one covered workplace at a DOE site, the contractor must establish and maintain a single worker safety and health program for the covered workplaces for which the contractor is responsible. (2) If more than one contractor is responsible for covered workplaces, each contractor must: (i) Establish and maintain a worker safety and health program for the workplaces for which the contractor is responsible; and (ii) Coordinate with the other contractors responsible for work at the covered workplaces to ensure that there are clear roles, responsibilities and procedures to ensure the safety and health of workers at multi-contractor workplaces. (3) The worker safety and health program must describe how the contractor will: (i) Comply with the requirements set forth in Subpart C of this part that are applicable to the covered workplace, including the methods for implementing	8CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement, and maintain an effective Injury and Illness Prevention Program (Program). 8CCR, 2 Article 4.5 Multi-Employer Worksites.	No gap	Comply with Cal/OSHA regulation as a method of compliance. Note: The LLNL WSHP will remain in effect until the IIPP is approved by the Head of DOE Field Element. The LLNL WSHP will remain in effect for the balance of the Laboratory with no impact as to any granted variance.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
those requirements; and (ii) Integrate the requirements set forth in Subpart C of this part that are applicable to a covered workplace with other related site-specific worker protection activities and with the Integrated Safety Management System.			
(b) DOE evaluation and approval. The Head of DOE Field Element must complete a review and provide written approval of the contractor's worker safety and health program, within 90 days of receiving the document. The worker safety and health program and any updates are deemed approved 90 days after submission if they are not specifically approved or rejected by DOE earlier. (1) Beginning May 25, 2007, no work may be performed at a covered workplace unless an approved worker safety and health program is in place for the workplace. (2) Contractors must send a copy of the approved program to the Assistant Secretary for Environment, Safety and Health.	No comparable requirement. Note: This requirement is subsumed by initial and annual IIPP approval requirement.	Gap	Incorporate requirement into the IIPP. The IIPP will include review and approval by the Head of DOE Field Element when initially developed and annually a letter stating no change or submission for review when significantly changed per section (c) Updates.
(3) Contractors must furnish a copy of the approved worker safety and health program, upon written request, to the affected workers or their designated representatives.	8CCR340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. 8CCR340.1(b) The affected employee, employees or their representatives shall be allowed access to the records and reports of the results of the testing,	No gap	Comply with Cal/OSHA regulation. Individual contractors and subcontractor IIPP will be available to their employees in accordance with California law. Collectively, the IIPP, like the WSHP, will remain accessible to all project employees via the internet.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
	monitoring or measuring when carried out under the requirements of a standard promulgated under Labor Code Section 142.3. 8CCR3204(e)(1)(A) Whenever an employee or designated representative requests access to a record, the employer shall assure that access is provided in a reasonable time, place, and manner, but in no event later that fifteen (15) days after the request for access is made. Note: Additional Cal OSHA safety orders specifically require access to health and safety programs, such as: 8CCR5194(e)(3) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Chief, and NIOSH, in accordance with the requirements of section 3204(e). Per "Health & Safety Rights: Facts for California Worker" June 2015, "you have the right to review your employer's written plans for certain Cal/OSHA-required programs, such as hazard communication, respiratory protection, and permit-required confined space entry procedures."		The IIPP will incorporate the 10 CFR 851.20(b) worker rights and responsibilities.
(c) Updates. (1) Contractors must submit an update of the worker safety and health program to the appropriate Head of DOE Field Element, for review and approval whenever a significant change or addition to the program is made, or a change in contractors occurs. (2) Contractors must submit annually to	No comparable requirement.	Gap	Incorporate requirement into the IIPP.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
DOE either an updated worker safety and health program for approval or a letter stating that no changes are necessary in the currently approved worker safety and health program. (3) Contactors must incorporate in the worker safety and health program any changes, conditions, or workplace safety and health standards directed by DOE consistent with the requirements of this part and DEAR 970.5204–2, Laws, Regulations and DOE Directives (December 2000) and associated contract clauses.			
(d) Labor Organizations. If a contractor employs or supervises workers who are represented for collective bargaining by a labor organization, the contractor must: (1) Give the labor organization timely notice of the development and implementation of the worker safety and health program and any updates thereto; and (2) Upon timely request, bargain concerning implementation of this part, consistent with the Federal labor laws.	No comparable requirement.	Gap	Incorporate requirement into the IIPP for Labor Organizations or collective bargaining employees of Contractors employed as part of the Facility construction project.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
851.12 Implementation			
(a) Contractors must implement the requirements of this part. (b) Nothing in this part precludes a contractor from taking any additional protective action that is determined to be necessary to protect the safety and health of workers.	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program).	No gap	Comply with Cal/OSHA regulation as a method of compliance. Contractors are to submit their IIPP to LLNS for approval.

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
851.13 Compliance			
(a) Contractors must achieve compliance with all the requirements of Subpart C of this part, and their approved worker safety and health program no later than May 25, 2007. Contractors may be required to comply contractually with the requirements of this rule before February 9, 2007. (b) In the event a contractor has established a written safety and health program, an Integrated Safety Management System (ISMS) description pursuant to the DEAR Clause, or an approved Work Smart Standards (WSS) process before the date of issuance of the final rule, the Contractor may use that program, description, or process as the worker safety and health program required by this part if the appropriate Head of the DOE Field Element approves such use on the basis of written documentation provided by the contractor that identifies the specific portions of the program, description, or process, including any additional requirements or implementation methods to be added to the existing program,	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program).	No gap	Comply with Cal/OSHA regulation.

Attachment 1

Subpart B – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart B	851 vs Cal/OSHA	Action*
description, or process, that satisfy the requirements of this part and that provide a workplace as safe and healthful as would be provided by the requirements of this part.			
(c) Nothing in this part shall be construed to limit or otherwise affect contractual obligations of a contractor to comply with contractual requirements that are not inconsistent with the requirements of this part.	This is unnecessary as additional requirements can be met and are enforceable in the M&O contract.	No Gap	Include in the IIPP Comply with Contract No. DE-AC52-07NA27344.

*Maintain in The Plan = No gap exists but for clarification (or emphasis) LLNS will include a requirement in The Plan.
Incorporate in The Plan = A gap or partial gap exists. LLNS will include an 851 referenced 29 CFR 1926 requirement or other 851 requirement in The Plan.
Comply with Cal/OSHA Regulation as a method of compliance. = No gap exists. LLNS will include a statement to comply with Cal/OSHA regulations in The Plan.

Attachment 2

Table 2 – Cal/OSHA Regulations in lieu of 10 CFR 851, Subpart C

Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.20 Management responsibilities and worker rights and responsibilities			
(a) Management responsibilities. Contractors are responsible for the safety and health of their workforce and must ensure that contractor management at a covered workplace: (1) Establish written policy, goals, and objectives for the worker safety and health program;	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. 8 CCR 340.1 (a) Whenever an employer is required to conduct tests or to engage in monitoring or measuring, to determine employee exposure to hazards by specific standards promulgated under Labor Code Section 142.3, the employer shall notify the affected employee or employees or their representative, prior to commencement of the date, time and place of the testing, monitoring or measuring of employee exposure. 8 CCR 340.2 Whenever any employee has been or is being exposed to toxic materials or harmful physical agents in concentrations or at levels exceeding those prescribed by applicable standard, order, or special order, the employer of the affected employee must promptly notify any employee so affected in writing of the fact that the employee has been exposed, and of the corrective action being taken by the employer.	No gap	Comply with Cal/OSHA regulation. Note: In addition, management responsibilities are included in Contract No. DE-AC52-07NA27344. Goals are established every year through the DOE Performance Evaluation and Measurement Plan (PEMP) process. This will be included in the IIPP.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). The Program shall be in writing and, shall, at a minimum…		
(2) Use qualified worker safety and health staff (e.g., a certified industrial hygienist, or safety professional) to direct and manage the program;	No comparable requirement.	Gap	Incorporate requirement into the IIPP. Construction contractors and subcontractors to be required to have an on-site representative with the authority and responsibility to implement their IIPP requirements and to correct safety and health deficiencies. Contractors and subcontractors shall include a process describing how they discharge their safety and health oversight responsibilities and qualifications of representatives.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(3) Assign worker safety and health program responsibilities, and hold personnel accountable for worker safety and health performance; (4) Provide mechanisms to involve workers and their elected representatives in the development of the worker safety and health program goals, objectives, and performance measures and in the identification and control of hazards in the workplace; (5) Provide workers with access to information relevant to the worker safety and health program;	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. …The Notice shall inform the employees that the employer shall provide an opportunity for employees or their representatives to observe monitoring or measuring of employee exposure to hazards conducted pursuant to standards promulgated under California Labor Code Section 142.3, and shall allow the employee or his representative access to accurate records of employee exposures to potentially toxic materials or harmful physical agents.	No gap	Comply with Cal/OSHA regulation. Where 8 CCR specifies a regulatory, enforcement, or reporting element the IIPP will state clearly that the sole regulator is the DOE / NNSA. Cal/OSHA has no jurisdictional authority on a DOE/NNSA worksite or workplace under this variance.
	8 CCR 3203(a)(1) Identify the person or persons with authority and responsibility for implementing the Program. 8 CCR 3203(a)(2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices.		

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	8 CCR Chapter 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees. 8 CCR 3204(a). The purpose of this section is to provide employees and their designated representatives and authorized representatives of the Chief of the Division of Occupational Safety and Health (DOSH) a right of access to relevant exposure and medical records.		
(6) Establish procedures for workers to report without reprisal job-related fatalities, injuries, illnesses, incidents, and hazards and make recommendations about appropriate ways to control those hazards; (7) Provide for prompt response to such reports and recommendations; (8) Provide for regular communication with workers about workplace safety and health matters; (9) Establish procedures to permit workers to stop work or decline to perform an assigned task because of a reasonable belief that the task poses an imminent risk of death, serious physical harm, or other serious hazard to workers, in circumstances	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. 8 CCR 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational	Partial Gap	Comply with Cal/OSHA regulation. Include in IIPP the 851 Rights and Responsibilities in the IIPP to assure that workers are knowledgeable of their right to stop or pause work without fear of reprisal. Stop work authority at LLNS is documented in the Prime Contract No.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
where the workers believe there is insufficient time to utilize normal hazard reporting and abatement procedures; and	safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal.		DE-AC52-07NA27344 however, LLNS will also maintain the stop work authority in the IIPP.
	8 CCR 3203(a)(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard… (B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. California Labor Code 6311. No employee shall be laid off or discharged for refusing to perform work in the performance of which this code, including Section 6400, any occupational safety or health standard or any safety order of the division or standards board will be violated, where the violation would create a real and apparent hazard to the employee or his or her fellow employees.		
(10) Inform workers of their rights and responsibility by appropriate means, including posting the DOE-designated Worker Protection Poster in the workplace where it is accessible to all workers.	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of	No Gap	Maintain in The Plan. Note: LLNS will continue to post the DOE-designated Worker Protection Poster in addition to mandated California and Federal postings.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	employees under the California Labor Code. FAR Clause: 52.222-40: Notification of employee rights under the employee relations act.		.
(b) Worker rights and responsibilities. Workers must comply with the requirements of this part, including the worker safety and health program, which are applicable to their own actions and conduct. Workers at a covered workplace have the right, without reprisal, to:	8CCR Chapter 4 Subchapter 7 Introduction 3203(a)(2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensure employee compliance with safe and healthful work practices.	No gap	Comply with Cal/OSHA regulation. Incorporate into the IIPP and include DOE assurances of worker rights and responsibilities as a best practice.
(1) Participate in activities described in this section on official time;	No comparable requirement.	Gap	Incorporate requirement into the IIPP.
(2) Have access to:			
(i) DOE safety and health publications;	No comparable requirement	Gap	Incorporate requirement into the IIPP.
(ii) The worker safety and health program for the covered workplace; (iii) The standards, controls, and procedures applicable to the covered workplace;	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the Cal/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. 8 CCR 340.1(b) The affected employee, employees or their representatives shall be allowed access to the	Partial gap	California regulations address this requirement in part, but not in full. Incorporate requirement into the IIPP. Note: LLNS will continue to post the

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	records and reports of the results of the testing, monitoring or measuring when carried out under the requirements of a standard promulgated under Labor Code Section 142.3. 8 CCR 3204(e)(1)(A) Whenever an employee or designated representative requests access to a record, the employer shall assure that access is provided in a reasonable time, place, and manner, but in no event later that fifteen (15) days after the request for access is made. Note: Additional Cal/OSHA safety orders specifically require access to health and safety programs, such as: 8 CCR 5194(e)(3) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Chief, and NIOSH, in accordance with the requirements of section 3204(e). Per "Health & Safety Rights: Facts for California Worker" June 2015, "you have the right to review your employer's written plans for certain Cal/OSHA-required programs, such as hazard communication, respiratory protection, and permit-required confined space entry procedures."		IIPP and ES&H Procedures Manual on the internet for Accessibility as well as posting on site the DOE worker rights and responsibilities as a best practice.
(iv) The safety and health poster that informs the worker of relevant rights and responsibilities;	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State	No gap	Comply with Cal/OSHA regulations. LLNL will post the DOE 10 CFR 851 Safety and Health poster of worker rights and responsibilities as a best practice.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code.		
(v) Limited information on any recordkeeping log (OSHA Form 300). Access is subject to Freedom of Information Act requirements and restrictions; and	8 CCR 14300.32(a) Basic requirement. At the end of each calendar year, you must: (4) Post the annual summary 8 CCR 3204(a) Purpose. The purpose of this section is to provide employees and their designated representatives and authorized representatives of the Chief of the Division of Occupational Safety and Health (DOSH) a right of access to relevant exposure and medical records.	No gap	Comply with Cal/OSHA regulations Where 8 CCR specifies a regulatory, enforcement, or reporting element the IIPP will state clearly that the sole regulator is the DOE / NNSA. Cal/OSHA has no jurisdictional authority on a DOE/NNSA worksite or workplace under this variance.
(vi) The DOE Form 5484.3 (the DOE equivalent to OSHA Form 301) that contains the employee's name as the injured or ill worker;	8 CCR 14300.35(a) Basic requirement. Your employees and their representatives must be involved in the recordkeeping system in several ways… (2) You must provide limited access to your injury and illness records for your employees and their representatives. 8 CCR 14300.35(b)(2) Do I have to give my employees and their representatives access to the injury and illness records required by this article? Yes. Your employees, former employees, their personal representatives, and their authorized employee representatives have the right to access the injury and illness records required by this article, with some limitations, as discussed below. 8 CCR 14300.29(a) Basic requirement. You must	Partial gap	LLNS will maintain requirement in the IIPP. Cal/OSHA does not require use of DOE Form 5484.3. However, the information required in DOE Form 5484.3 is collected and documented in Computerized Accident/Incident Reporting System (CAIRS) and Cal/OSHA reporting forms.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	use Cal/OSHA 300, 300A, and 301 forms, or equivalent forms, for recordable injuries and illnesses. Note: In addition, covered by DOE Order 231.1B-Environment, Safety and Health Reporting Order (CAIRS requirement) incorporated in Contract No. DE-AC52-07NA27344, Clause for Environment Safety and Health Reporting.		

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(3) Be notified when monitoring results indicate the worker was overexposed to hazardous materials; (4) Observe monitoring or measuring of hazardous agents and have the results of their own exposure monitoring; (5) Have a representative authorized by employees accompany the Director or his authorized personnel during the physical inspection of the workplace for the purpose of aiding the inspection. When no authorized employee representative is available, the Director or his authorized representative must consult, as appropriate, with employees on matters of worker safety and health; (6) Request and receive results of inspections and accident investigations; (7) Express concerns related to worker safety and health; (8) Decline to perform an assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious physical harm to the worker coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures; and	8 CCR 340 Every employer shall be required to post immediately upon receipt and to keep posted the CAL/OSHA Notice of Employee Protections and Obligations entitled "Safety and Health Protection on the Job," which is furnished pursuant to Labor Code Section 6328 by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, containing information on pertinent safety laws, regulations and certain rights of employees under the California Labor Code. … The Notice shall also inform the employees that no employee shall be laid off or discharged for refusing to perform work in the performance of which the provisions of the California Labor Code, any occupational safety or health standard or any safety order of the Division will be violated, where such violation would create a real and apparent hazard to the employee or his fellow employees. …The Notice shall inform the employees that the employer shall provide an opportunity for employees or their representatives to observe monitoring or measuring of employee exposure to hazards conducted pursuant to standards promulgated under California Labor Code Section 142.3, and shall allow the employee or his representative access to accurate records of employee exposures to potentially toxic materials or harmful physical agents. 8CCR340.1 (a) Whenever an employer is required to conduct tests or to engage in monitoring or measuring, to determine employee exposure to hazards by specific standards promulgated under Labor Code Section 142.3	No gap	Comply with Cal/OSHA regulation. Where 8 CCR specifies a regulatory, enforcement, or reporting element the IIPP will state clearly that the sole regulator is the DOE / NNSA. Cal/OSHA has no jurisdictional authority on a DOE/NNSA worksite or workplace under this variance.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	the employer shall notify the affected employee or employees or their representative, prior to commencement of the date time and place of the testing, monitoring or measuring of employee exposure. The employer shall provide the affected employee or employees, or their representatives with the opportunity to observe the testing, sampling, monitoring, or measuring undertaken pursuant to such standards. 8 CCR 340.2 Whenever any employee has been or is being exposed to toxic materials or harmful physical agents in concentrations or at levels exceeding those prescribed by applicable standard, order, or special order, the employer of the affected employee must promptly notify any employee so affected in writing of the fact that the employee has been exposed, and of the corrective action being taken by the employer. 8 CCR 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. 8 CCR 3204(a) Purpose. The purpose of this section is to provide employees and their designated representatives and authorized representatives of the Chief of the Division of Occupational Safety and Health (DOSH) a right of access to relevant exposure and medical records.		

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	Per "Health & Safety Rights: Facts for California Worker" June 2015, "When Cal/OSHA conducts an on-site inspection... a representative of the employer and a representative authorized by the employees may walk around with the inspector."		Where 8 CCR specifies a regulatory, enforcement, or reporting element the IIPP will state clearly that the sole regulator is the DOE / NNSA. Cal/OSHA has no jurisdictional authority on a DOE/NNSA worksite or workplace under this variance.
	Per "Health & Safety Rights: Facts for California Worker" June 2015, "In any case where Cal/OSHA issues citations, the employer must post in the workplace a copy of the citation..." Per "Health & Safety Rights: Facts for California Worker" June 2015, "You have the right to receive copies of the following records: Log of Work-Related Injuries and Illnesses (Form 300); Annual Summary of Work-Related Injuries and Illnesses (Form 300A); and Injury and Illness Incident Report (Form 301) describing an injury or illness that happened to you. In most industries, your employer must provide you copies by the end of the next business day." Per "Health & Safety Rights: Facts for California Worker" June 2015, "you have the right to refuse hazardous work."		

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(9) Stop work when the worker discovers employee exposures to imminently dangerous conditions or other serious hazards; provided that any stop work authority must be exercised in a justifiable and responsible manner in accordance with procedures established in the approved worker safety and health program.	No comparable requirement. Per "Health & Safety Rights: Facts for California Worker" June 2015, "you have the right to refuse hazardous work." Note: Stop work also addressed by Contract No. DE-AC52-07NA27344 which includes FAR 52.242-15 - Stop Work Order (Aug 1989) (Alternative I)(Apr 1984).	Gap	Stop work authority at LLNL is documented in Contract No. DE-AC52-07NA27344. LLNS will maintain requirement in the IIPP.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.21 Hazard identification and assessment			
(a) Contractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. Procedures must include methods to: (1) Assess worker exposure to chemical, physical, biological, or safety workplace hazards through appropriate workplace monitoring; (2) Document assessment for chemical, physical, biological, and safety workplace hazards using recognized exposure assessment and testing methodologies and using of accredited and certified laboratories; (3) Record observations, testing and monitoring results;	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices. 8 CCR 3204(d)(1)(B) Employee Exposure Records. Each employee exposure record shall be preserved and maintained for at least thirty (30) years. 8 CCR 5155(e)(1) Whenever it is reasonable to suspect that employees may be exposed to concentrations of airborne contaminants in excess of levels permitted in section 5155(c), the employer shall monitor (or cause to have monitored) the work environment so that exposures to employees can be measured or calculated. 8 CCR 5155(e)(3) For the adequate protection of employees, the person supervising, directing or evaluating the monitoring and control methods shall be versed in this standard and shall be competent in industrial hygiene practice. 8 CCR 5155(e)(4) All monitoring results shall be recorded and such records shall be retained in accordance with section 3204.	Partial gap	Comply with DOE requires records to be maintained for longer than 30 years. Comply with Cal/OSHA regulation. LLNS will specify and maintain DOE record retention durations in the IIPP.
	8 CCR 5191(d)(1) Initial monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance exceed the action level (or in the absence of an action level, the exposure limit). The person supervising, directing or evaluating the		

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
	monitoring shall be competent in industrial hygiene practice.		
(4) Analyze designs of new facilities and modifications to existing facilities and equipment for potential workplace hazards;	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). 8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices. Note: In addition, addressed though Contract No. DE-AC52-07NA27344 which includes DEAR 970.5223-1, which includes Integrated Safety Management, the guiding principles and five core functions.	No gap	Maintain requirement in the IIPP Flow down DEAR 970.5223-1 to Subcontracts.
(5) Evaluate operations, procedures, and facilities to identify workplace hazards;	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	No gap	Comply with Cal/OSHA regulation.
(6) Perform routine job activity-level hazard analyses;	8 CCR Chapter 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	Partial gap	Comply with Cal/OSHA regulation, but include details on job activity-level hazard analyses in the IIPP.
(7) Review site safety and health experience information; and	No comparable Cal/OSHA requirement.	Partial gap	Maintain requirement in the IIPP.
	Note: This is addressed by DEAR 970.5223-1, which required feedback and continuous improvement on all safety-related activities. The DEAR is included in the Contract No. DE-AC52-07NA27344.		
(8) Consider interaction between workplace hazards and other hazards such as radiological hazards.	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program.	No gap	Comply with Cal/OSHA regulation.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(b) Contractors must submit to the Head of DOE Field Element a list of closure facility hazards and the established controls within 90 days after identifying such hazards. The Head of DOE Field Element, with concurrence by the Cognizant Secretarial Officer, has 90 days to accept the closure facility hazard controls or direct additional actions to either: (1) Achieve technical compliance; or (2) Provide additional controls to protect the workers.	No comparable requirement.	Gap	Incorporate requirement into the IIPP.
(c) Contractors must perform the activities identified in paragraph (a) of this section, initially to obtain baseline information and as often thereafter as necessary to ensure compliance with the requirements in this Subpart.	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices. Inspections shall be made to identify and evaluate hazards: (A) When the Program is first established; (B) Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard; and (C) Whenever the employer is made aware of a new or previously unrecognized hazard.	No gap	Comply with Cal/OSHA regulation.

Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.22 Hazard prevention and abatement			
(a) Contractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner.	8 CCR 3203(a)(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:	No gap	Comply with Cal/OSHA regulation.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(1) For hazards identified either in the facility design or during the development of procedures, controls must be incorporated in the appropriate facility design or procedure.	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). 8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	Partial Gap	Incorporate requirement in the IIPP. Note: In addition, addressed though Contract No. DE-AC52-07NA27344 which includes DEAR 970.5223-1, which includes Integrated Safety Management, the guiding principles and five core functions.
(2) For existing hazards identified in the workplace, contractors must: (i) Prioritize and implement abatement actions according to the risk to workers; (ii) Implement interim protective measures pending final abatement; and (iii) Protect workers from dangerous safety and health conditions;	8 CCR 3203(a)(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard: (A) When observed or discovered When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.	No gap	Comply with Cal/OSHA regulation.
(b) Contractors must select hazard controls based on the following hierarchy:			

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(1) Elimination or substitution of the hazards where feasible and appropriate; (2) Engineering controls where feasible and appropriate; (3) Work practices and administrative controls that limit worker exposures; and (4) Personal protective equipment. (c) Contractors must address hazards when selecting or purchasing equipment, products, and services.	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program).	Partial gap	Incorporate requirement into the IIPP.

Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.23 Safety and health standards			
(a) Contractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace:			
(1) Title 10 Code of Federal Regulations (CFR) 850, ''Chronic Beryllium Disease Prevention Program."	10 CFR 850 "Chronic Beryllium Prevention Program"	No gap	10 CFR 850 is not subject to this variance request. It applies independent of 10 CFR 851. LLNS will continue to comply with 10 CFR 850.
(2) Title 29 CFR, Parts 1904.4 through 1904.11, 1904.29 through 1904.33; 1904.44, and 1904.46, ''Recording and Reporting Occupational Injuries and Illnesses.''	8 CCR 14300.4 through 14300.11, 14300.29 through 14300.33, "California's Employer Records of Occupational Injury and Illness."	No gap	Comply with Cal/OSHA regulation.
(3) Title 29 CFR, Part 1910, ''Occupational Safety and Health Standards,'' excluding 29 CFR 1910.1096, ''Ionizing Radiation.''	8 CCR, Chapter 4. Division of Industrial Safety, Subchapter 7, General Industrial Safety Orders, Chapter 4 Subchapter 4 Construction Safety Orders, excluding 8 CCR Group 14 Radiation and Radioactivity.	No gap	Comply with Cal/OSHA regulation.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(4) Title 29 CFR, Part 1915, ''Shipyard Employment."	Activity not currently applicable to LLNL operations.	No gap	Not Applicable to DICE Construction.
(5) Title 29 CFR, Part 1917, ''Marine Terminals.''	Activity not currently applicable to LLNL operations.	No gap	Not Applicable to DICE Construction.
(6) Title 29 CFR, Part 1918, ''Safety and Health Regulations for Longshoring.''	Activity not currently applicable to LLNL operations.	No gap	Not Applicable to DICE Construction.
(7) Title 29 CFR, Part 1926, ''Safety and Health Regulations for Construction.''	8 CCR, Chapter 4. Subchapter 4, Construction Safety Orders.	No gap	Comply with Cal/OSHA regulation.
(8) Title 29 CFR, Part 1928, ''Occupational Safety and Health Standards for Agriculture.''	Activity not currently applicable to operations.	No gap	Not Applicable to DICE Construction
(9) American Conference of Governmental Industrial Hygienists (ACGIH®), ''Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices,'' (2016) (incorporated by reference, see § 851.27) when the ACGIH® Threshold Limit Values (TLVs) are lower (more protective) than permissible exposure limits in 29 CFR part 1910 for general industry and/or part 1926 for construction. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with the other provisions of any applicable expanded health standard found in 29 CFR part 1910 and/or part 1926.	No comparable requirement.	Gap	Incorporate the technical amendment to 10 CFR 851 into the IIPP.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(10) American National Standards Institute (ANSI/ASSE) Z88.2, ''American National Standard Practices for Respiratory Protection,'' (2015) (incorporated by reference, see § 851.27).	Title 8 CCR, Chapter 4., Subchapter 7, General Industrial Safety Orders, Section 5144 Respiratory Protection.	Partial gap	Incorporate requirement into the IIPP. Require NIOSH certified respiratory protection equipment. Subcontractor respiratory protection programs must incorporate (ANSI/ASSE) Z88.2 (2015) requirements as well as Cal/OSHA.
(11) ANSI Z136.1, ''Safe Use of Lasers,'' (2014) (incorporated by reference, see §851.27)	No comparable requirement.	Gap	Incorporate the requirement into the IIPP.
(12) ANSI Z49.1, ''Safety in Welding, Cutting and Allied Processes,'' sections 4.3 and E4.3 (2012) (incorporated by reference, see §851.27).	No comparable requirement.	Gap	Incorporate the requirements into the IIPP.
(13) National Fire Protection Association (NFPA) 70, ''National Electrical Code,'' (2017) (incorporated by reference, see §851.27).	No comparable requirement.	Gap	Incorporate requirement into the IIPP.
(14) NFPA 70E, ''Standard for Electrical Safety in the Workplace,'' (2015) (incorporated by reference, see §851.27).	No comparable requirement.	Gap	Incorporate requirement into the IIPP.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(b) Nothing in this part must be construed as relieving a contractor from complying with any additional specific safety and health requirement that it determines to be necessary to protect the safety and health of workers.	No comparable requirement.	Gap	Incorporate requirement into The Plan.

Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.24 Functional Areas			
(a) Contractors must have a structured approach to their worker safety and health program which at a minimum, include provisions for the following applicable functional areas in their worker safety and health program: construction safety; fire protection; firearms safety; explosives safety; pressure safety; electrical safety; industrial hygiene; occupational medicine; biological safety; and motor vehicle safety. (b) In implementing the structured approach required by paragraph (a) of this section, contractors must comply with the applicable standards and provisions in Appendix A of this part, entitled ''Worker Safety and Health Functional Areas."	8 CCR 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program).	See Table 3 below.	See Table 3 below.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.25 Training and information.			
(a) Contractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided with the training and information on that hazard in order to perform their duties in a safe and healthful manner. (b) The contractor must provide: (1) Training and information for new workers, before or at the time of initial assignment to a job involving exposure to a hazard;	8 CCR 3203(a)(2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs. 8 CCR 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal.	No gap	Comply with Cal/OSHA regulation.
(2) Periodic training as often as necessary to ensure that workers are adequately trained and informed; and (3) Additional training when safety and health information or a change in workplace conditions indicates that a new or increased hazard exists. (c) Contractors must provide training and information to workers who have worker safety and health program responsibilities that is necessary for them to carry out those responsibilities.	Substantial compliance with this provision includes meetings, training programs. 8 CCR 3203(a)(7) Provide training and instruction... (B) To all new employees; (C) To all employees given new job assignments for which training has not previously been received; (D) Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard; (E) For supervisors to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed.		

Attachment 2

Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
851.26 Recordkeeping and reporting			
(a) Recordkeeping. Contractors must: (1) Establish and maintain complete and accurate records of all hazard inventory information, hazard assessments, exposure measurements, and exposure controls.	8 CCR 3203(b) Records of the steps taken to implement and maintain the Program shall include: (1) Records of scheduled and periodic inspections required by subsection (a)(4) to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. These records shall be maintained for at least one (1) year; and	Partial gap	Incorporate requirement into the IIPP.
	2) Documentation of safety and health training required by subsection (a)(7) for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for at least one (1) year.		
(2) Ensure that the work-related injuries and illnesses of its workers and subcontractor workers are recorded and reported accurately and consistent with DOE reporting directives.	No comparable Cal/OSHA requirement. Note: This is addressed through Contract No. DE-AC52-07NA27344 which includes Environment, Safety and Health Reporting (DOE Order 231.1B, Admin Chg. 1 [CRD Only] [11/28/2012]).	Gap	Maintain requirement in the IIPP.
(3) Comply with the applicable occupational injury and illness recordkeeping and reporting workplace safety and health standards in §851.23 at their site, unless otherwise directed by DOE.	8 CCR 14300 The purpose of this rule (Article 2) is to require employers to record work-related fatalities, injuries and illnesses.	No gap	Comply with Cal/OSHA regulation.
(4) Not conceal nor destroy any information concerning non-compliance or potential noncompliance with the requirements of this part.	No comparable requirement.	Gap	Incorporate requirement into the IIPP.

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Subpart C – Program Requirements	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Subpart C	851 vs Cal/OSHA	Action*
(b) Reporting and investigation. Contractors must: (1) Report and investigate accidents, injuries and illness;	8 CCR 3203(a)(5) Include a procedure to investigate occupational injury or occupational illness.	GAP	Have a procedure for the conduction of an investigation while the reporting of the incident shall be to DOE as required
(2) Analyze related data for trends and lessons learned.	No comparable Cal/OSHA requirement.	Gap	Maintain requirement in the IIPP.

*Maintain in The Plan = No gap exists but for clarification (or emphasis) LLNS will include a requirement in The Plan.
Incorporate in The Plan = A gap or partial gap exists. LLNS will include an 851 referenced 29 CFR 1926 requirement in The Plan.
Comply with Cal/OSHA Regulation as a method of compliance. = No gap exists. LLNS will include a statement to comply with Cal/OSHA regulations in The Plan.

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Table 3 – Cal/OSHA Regulations in lieu of 10 CFR 851, Appendix A

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
This appendix establishes the mandatory requirements for implementing the applicable functional areas required by §851.24.			
1. Construction Safety			
(a) For each separately definable construction activity (e.g., excavations, foundations, structural steel, roofing) the construction contractor must:			The IIPP will incorporate this element as written in 10 CFR 851.
(1) Prepare and have approved by the construction manager an activity hazard analysis prior to commencement of affected work. Such analyses must:	8 CCR 1509(a) Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program in accordance with Subchapter 4 Article 3 section 1509 of the Construction Safety Orders that shall be in accordance with section Subchapter 7 3203 of the General Industry Safety Orders. 8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	Partial gap	California regulations do not require the Construction Manager to approve hazard analysis. Incorporate requirement into the IIPP.
(i) Identify foreseeable hazards and planned protective measures;	8 CCR 1509(a) Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program in accordance with section 3203 of the General Industry Safety Orders. 8 CCR 1509(b) Every employer shall adopt a written Code of Safe Practices which relates to the employer's operations. The Code shall contain language equivalent to the relevant parts of Plate A-3 of the Appendix. 8 CCR Appendix A, PLATE A-3 CODE OF SAFE PRACTICES.	No gap	Comply with Cal/OSHA regulations.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.		
(ii) Address further hazards revealed by supplemental site information (e.g., site characterization data, as-built drawings) provided by the construction manager;	8 CCR 3 1509(a) Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program in accordance with section 3203 of the General Industry Safety Orders. 8 CCR 1509(b) Every employer shall adopt a written Code of Safe Practices which relates to the employer's operations. The Code shall contain language equivalent to the relevant parts of Plate A-3 of the Appendix. 8 CCR Chapter 4 Subchapter 4, Appendix A, PLATE A-3 CODE OF SAFE PRACTICES. 8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	Partial gap	California regulations do not require the Construction Manager to do this. Incorporate requirement into the IIPP.
(iii) Provide drawings and/or other documentation of protective measures for which applicable Occupational Safety and Health Administration (OSHA) standards require preparation by a Professional Engineer or other qualified professional, and	This clause is referencing Federal OSHA requirements. Cal/OSHA parallels Federal OSHA in standards that are common to both.	No gap	Comply with Cal/OSHA regulations.
(iv) Identify competent persons required for workplace inspections of the construction activity, where required by OSHA standards.	This clause is referencing Federal OSHA requirements. Cal/OSHA parallels Federal OSHA in standards that are common to both.	No gap	Comply with Cal/OSHA regulations.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(2) Ensure workers are aware of foreseeable hazards and the protective measures described within the activity analysis prior to beginning work on the affected activity.	8 CCR 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees. 8 CCR 3203(a)(7) Provide training and instruction: ... (C) To all employees given new job assignments for which training has not previously been received. 8 CCR 1509(e) Supervisory employees shall conduct "toolbox" or "tailgate" safety meetings, or equivalent, with their crews at least every 10 working days to emphasize safety.	No gap	Comply with Cal/OSHA regulations.
(3) Require that workers acknowledge being informed of the hazards and protective measures associated with assigned work activities. Those workers failing to utilize appropriate protective measures must be subject to the construction contractor's disciplinary process.	8 CCR 3203(a)(2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices.	No gap	Comply with Cal/OSHA regulations.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
	8 CCR 3203(b)(2) Documentation of safety and health training required by subsection (a)(7) for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers.		
(b) 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.	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices.	Partial gap	California regulations do not specifically require this. Incorporate requirement in the IIPP.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(c) Workers must be instructed to report to the construction contractor's designated representative, hazards not previously identified or evaluated. If immediate corrective action is not possible or the hazard falls outside of project scope, the construction contractor must immediately notify affected workers, post appropriate warning signs, implement needed interim control measures, and notify the construction manager of the action taken. The contractor or the designated representative must stop work in the affected area until appropriate protective measures are established.	8 CCR 3203(a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. 8 CCR 3203(a)(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:...(A) When observed or discovered; and,...(B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.	No gap	Comply with Cal/OSHA regulations. Communicate that workers have the right and responsibility to stop or pause work.
(d) The construction contractor must prepare a written construction project safety and health plan to implement the requirements of this section and obtain approval of the plan by the construction manager prior to commencement of any work covered by the plan. In the plan, the contractor must designate the individual(s) responsible for on-site implementation of the plan, specify qualifications for those individuals, and provide a list of those project activities for which subsequent hazard analyses are to be performed. The level of detail within the construction project safety and health plan should be commensurate with the size, complexity and risk level of the construction	8 CCR 1509(a) Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program in accordance with section 3203 of the General Industry Safety Orders. 8 3203(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). The Program shall be in writing and, shall, at a minimum: (1) Identify the person or persons with authority and responsibility for implementing the Program.	Gap	California regulations do not address this section in its entirety. Incorporate requirement in the IIPP.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
project. The content of this plan need not duplicate those provisions that were previously submitted and approved as required by §851.11.			

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
2. Fire Protection			
A contractor responsible for a workplace must establish and implement a comprehensive fire protection and response program. This program must contain, at a minimum, the following elements: a) Contractors must implement a comprehensive fire safety and emergency response program to protect workers commensurate with the nature of the work that is performed. This includes appropriate facility and site-wide fire protection, fire alarm notification and egress features, and access to a fully staffed, trained, and equipped emergency response organization that is capable of responding in a timely and effective manner to site emergencies. (b) An acceptable fire protection program must include those fire protection criteria and procedures, analyses, hardware and systems, apparatus and equipment, and personnel that would comprehensively ensure that the objective in paragraph 2(a) of this section is met. This includes meeting applicable building codes and National Fire Protection Association codes and standards.	8CCR3221 Fire Prevention Plan 8CCR3220 Emergency Action Plan 8CCR3400 Medical Services and First Aid 8CCR3221 Fire Prevention Plan 8CCR3219 Maintenance of Fire Protection Equipment, Materials and Assemblies 8CCRGroup 27 Fire Protection Note: Incorporation of applicable building and NFPA codes and standards is also included in DOE O 420.1C Facility Safety, which is in the Contract No. DE-AC52-07NA27344. This standard will be flowed down to applicable subcontractors.	No Gap	Comply with Cal/OSHA regulations.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
3. Explosives Safety			
(a) Contractors responsible for the use of explosive materials must establish and implement a comprehensive explosives safety program. (b) Contractors must comply with the policy and requirements specified in the appropriate explosives safety technical standard (DOE STD-1212 Explosives Safety). (c) Contractors must determine the applicability of the explosives safety directive requirements to research and development laboratory type operations consistent with the DOE level of protection criteria described in the explosives safety directive.	No comparable requirement.	Gap	Use of high explosives will not be necessary or permitted. Not Applicable to Scope of Construction. This area will be reserved in the IIPP.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
4. Pressure Safety			
(a) Contractors must establish safety policies and procedures to ensure that pressure systems are designed, fabricated, tested, inspected, maintained, repaired, and operated by trained and qualified personnel in accordance with applicable and sound engineering principles. (b) Contractors must ensure that all pressure vessels, boilers, air receivers, and supporting piping systems conform to: (1) - (2) … list of ASME codes (a) (3) The strictest applicable state and local codes.	No comparable requirement.	Gap	Scope of work does not include design of pressure vessels or piping systems other than common utilities at utility delivery pressures. Not Applicable to Scope of Construction of the DICE. This area will be reserved in the IIPP.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
4. Pressure Safety			
(c) When national consensus codes are not applicable (because of pressure range, vessel geometry, use of special materials, etc.), contractors must implement measures to provide equivalent protection and ensure a level of safety greater than or equal to the level of protection afforded by the ASME or applicable state or local code. Measures must include the following: (1) Design drawings, sketches, and calculations must be reviewed and approved by a qualified independent design professional (i.e., professional engineer). Documented organizational peer review is acceptable. (2) Qualified personnel must be used to perform examinations and inspections of materials, in-process fabrications, non- destructive tests, and acceptance test. (3) Documentation, traceability, and accountability must be maintained for each pressure vessel or system, including descriptions of design, pressureconditions, testing, inspection, operation, repair, and maintenance.	No comparable requirement.	Gap	Scope of work does not include design of pressure vessels or piping systems other than common utilities at utility delivery pressures. Not Applicable to Scope of Construction of the DICE. This area will be reserved in the IIPP.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
5. Firearms Safety			
A contractor responsible for a workplace must establish firearms safety policies and procedures for security operations and training to ensure proper accident prevention controls are in place…	No comparable requirement.	Gap	All security operations will be executed by the LLNL Protective Force Division under the LLNL DOE Approved WSHP. Independent security operations or other use of firearms associated with the project will be prohibited. Not Applicable to Scope of Construction of the DICE. This area will be reserved in the IIPP.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
6. Industrial Hygiene			
Contractors must implement a comprehensive industrial hygiene program that includes at least the following elements:	8 CCR 5144(c) Respiratory protection program. This subsection requires the employer to develop and implement a written respiratory protection program with required worksite- specific procedures and elements for required respirator use.	No Gap	Comply with Cal/OSHA regulations. Incorporate requirements not covered by Cal/OSHA in the IIPP. Cal/OSHA standards address the full spectrum of industrial hygiene hazards and specific methods for evaluating and mitigating those hazards such as heat, cold, chemical and

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
			pesticide exposure, non-ionizing radiations, etc. In many cases these standards are more comprehensive than the standards in 29 CFR.
(a) Initial or baseline surveys and periodic resurveys and/or exposure monitoring as appropriate of all work areas or operations to identify and evaluate potential worker health risks;	8 CCR 3203(a)(4) Include procedures for identifying and evaluating workplace hazards including scheduled periodic inspections to identify unsafe conditions and work practices. Inspections shall be made to identify and evaluate hazards: 8 CCR 5144(d) Selection of respirators. This subsection requires the employer to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base respirator selection on these factors. 8 CCR 5155(e)(1) Whenever it is reasonable to suspect that employees may be exposed to concentrations of airborne contaminants in excess of levels permitted in section 5155(c), the employer shall monitor (or cause to have monitored) the work environment so that exposures to employees can be measured or calculated. 8 CCR 5191(d)(1) Initial monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance exceed the action level (or in the absence of an action level, the	No Gap	Comply with Cal/OSHA regulations.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
	exposure limit).		
(b) Coordination with planning and design personnel to anticipate and control health hazards that proposed facilities and operations would introduce;	No comparable requirement.	Gap	Incorporated in requirement in the IIPP.
(c) Coordination with cognizant occupational medical, environmental, health physics, and work planning professionals;	No comparable requirement.	Gap	Incorporated in requirement in the IIPP.
(d) Policies and procedures to mitigate the risk from identified and potential occupational carcinogens;	8 CCR 5209 Carcinogens 8 CCR 5194(e)(1) Employers shall develop, implement, and maintain at the workplace a written hazard communication program for their employees which at least describes how the criteria specified in sections 5194(f), (g), and (h) for labels and other forms of warning, safety data sheets, and employee information and training will be met, 8 CCR 5194(e)(2)(B) The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies;	No gap	Comply with Cal/OSHA regulations.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(e) Professionally and technically qualified industrial hygienists to manage and implement the industrial hygiene program; and	8 CCR 5144(c) The program must be administered by a suitably trained program administrator. 8 CCR 5144(c)(3) The employer shall designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness. 8 CCR 5155(e)(3) For the adequate protection of employees, the person supervising, directing or evaluating the monitoring and control methods shall be versed in this standard and shall be competent in industrial hygiene practice. 8 CCR 5191(d)(1) Initial monitoring. … The person supervising, directing or evaluating the monitoring shall be competent in industrial hygiene practice.	No gap	Comply with Cal/OSHA regulations.
(f) Use of respiratory protection equipment tested under the DOE Respirator Acceptance Program for Supplied-Air Suits when the National Institute for Occupational Safety and Health-approved respiratory protection does not exist for DOE tasks that require such equipment. For security operations military type masks for respiratory protection by security personnel are acceptable.	No comparable requirement. LLNL does not use the air supplied suits in the DOE Respirator Acceptance Program.	Gap	Not within scope of Construction of the DICE. Supplied air suits or security use of military masks are not reasonably anticipated as necessary for construction tasks. N/A.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
7. Biological Safety			
(a) Contractors must establish and implement a biological safety program that: (1) Establishes an Institutional Biosafety Committee (IBC) or equivalent. The IBC must: (i) Review any work with biological etiologic agents for compliance with applicable Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), World Health Organization (WHO), and other international, Federal, State, and local guidelines and assess the containment level, facilities, procedures, practices, and training and expertise of personnel; and (i) Review the site's security, safeguards, and emergency management plans and procedures to ensure they adequately consider work involving biological etiologic agents. (2) Maintains an inventory and status of biological etiologic agents, and provide to the responsible field and area office, through the laboratory IBC (or its equivalent), an annual status report describing the status and inventory of biological etiologic agents and the biological safety program. (3) Provides for submission to the appropriate Head of DOE Field Element, for review and concurrence before transmittal to the Centers for Disease Control and Prevention (CDC), each Laboratory Registration/Select Agent Program registration application package requesting registration of a laboratory facility for the purpose of transferring, receiving, or handling biological select agents.	No comparable requirement.	Gap	Work with etiological agents is not applicable to the Scope of Construction of the DICE. Biological safety will be reserved in the IIPP.

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
7. Biological Safety			
(4) Provides for submission to the appropriate Head of DOE Field Element, a copy of each CDC Form EA–101, Transfer of Select Agents, upon initial submission of the Form EA–101 to a vendor or other supplier requesting or ordering a biological select agent for transfer, receipt, and handling in the registered facility. Submit to the appropriate Head of DOE Field Element the completed copy of the Form EA–101, documenting final disposition and/or destruction of the select agent, within 10 days of completion of the Form EA–101. (5) Confirms that the site safeguards and security plans and emergency management programs address biological etiologic agents, with particular emphasis on biological select agents. (6)Establishes an immunization policy for personnel working with biological etiologic agents based on the evaluation of risk and benefit of immunization.			

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
8. Occupational Medicine			
(a) Contractors must establish and provide comprehensive occupational medicine services to workers employed at a covered workplace who: (1) Work on a DOE site for more than 30 days in a 12-month period; or (2) Are enrolled for any length of time in a medical or exposure monitoring program required by this rule and/or any other applicable Federal, State or local regulation, or other obligation.	Partially covered by California regulations. California employers are subject to medical surveillance regulations including Title 8, CCR Title 8, CCR 5199.1, 5208, 1529, 5218, 5231, 5193, 5194, 5209, 5203, 5217, 5192, 5191, 5216, 5198, 1532.1, 5097, 5144, 5147, 5153; Title 17, CCR 30277; and Title 3, CCR 6728 and 6760;	Partial gap	Incorporate elements not covered by California regulations into the IIPP. LLNS will continue to implement these requirements via the LLNS WSHP for LLNS employees working for any duration of time on the DICE Construction

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Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(b) The occupational medicine services must be under the direction of a graduate of a school of medicine or osteopathy who is licensed for the practice of medicine in the state in which the site is located. (c) Occupational medical physicians, occupational health nurses, physician's assistants, nurse practitioners, psychologists, employee assistance counselors, and other occupational health personnel providing occupational medicine services must be licensed, registered, or certified as required by Federal or State law where employed. (d) Contractors must provide the occupational medicine providers access to hazard information by promoting its communication, coordination, and sharing among operating and environment, safety, and health protection organizations. (1) Contractors must provide the occupational medicine providers with access to information on the following: (i) Current information about actual or potential work-related site hazards (chemical, radiological, physical, biological, or ergonomic); (ii) Employee job-task and hazard analysis information, including essential job functions;	Additional California regulations require medical services in the event of a workplace injury (e.g., California Labor Code 6400, 4600, 3400 and 3700); alcohol and drug rehabilitation (i.e., California Labor Code 1025 and 1026); the use of licensed medical providers, etc.		Project, or enrolled in a medical or exposure monitoring program. Subcontractors to LLNL DICE Construction Project will make comprehensive occupational medicine services available to their workers as required by California regulations and by their contractual obligations with LLNS. LLNS will continue to implement these requirements via the LLNS WSHP for LLNS employees working for any duration of time on the DICE Construction Project.
(iii) Actual or potential work-site exposures of each employee; and (iv) Personnel actions resulting in a change of job functions, hazards or exposures. (2) Contractors must notify the occupational medicine providers when an		No Gap	Comply with Cal/OSHA regulations.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
employee has been absent because of an injury or illness for more than 5 consecutive workdays (or an equivalent time period for those individuals on an alternative work schedule); (3) Contractors must provide the occupational medicine provider information on, and the opportunity to participate in, worker safety and health team meetings and committees; (4) Contractors must provide occupational medicine providers access to the workplace for evaluation of job conditions and issues relating to workers' health. (e) A designated occupational medicine provider must: (1) Plan and implement the occupational medicine services; and (2) Participate in worker protection teams to build and maintain necessary partnerships among workers, their representatives, managers, and safety and health protection specialists in establishing and maintaining a safe and healthful workplace. (f) A record, containing any medical, health history, exposure history, and demographic data collected for the occupational medicine purposes, must be developed and maintained for each employee for whom medical services are provided. All occupational medical records must be maintained in accordance with Executive Order 13335, Incentives for the Use of Health Information Technology.			

Attachment 3

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(1) Employee medical, psychological, and assistancerecords must be kept confidential, protected from unauthorized access, and stored under conditions that ensure their long-term preservation. Psychological records must be maintained separately from medical records and in the custody the designated psychologist in accordance with 10 CFR 712.38(b)(2). (2) (2) Access to these records must be provided in accordance with DOE regulations implementing the Privacy Act and the Energy Employees Occupational Illness Compensation Program Act. (g) The occupational medicine services provider must determine the content of the worker health evaluations, which must be conducted under the direction of a licensed physician, in accordance with current sound and acceptable medical practices and all pertinent statutory and regulatory requirements, such as the Americans with Disabilities Act.		No Gap	Scope of work does not require human reliability, therefore it is not applicable to Scope of Construction of the DICE. This area will be reserved in the IIPP.

Attachment 3

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
(1) Workers must be informed of the purpose and nature of the medical evaluations and tests offered by the occupational medicine provider. (i) The purpose, nature and results of evaluations and tests must be clearly communicated verbally and in writing to each worker provided testing; (ii) The communication must be documented in the worker's medical record; and (2) The following health evaluations must be conducted when determined necessary by the occupational medicine provider for the purpose ofproviding initial and continuing assessment of employee fitness for duty. (i) At the time of employment entrance or transfer to a job with new functions and hazards, a medical placement evaluation of the individual's general health and physical and psychological capacity to perform work will establish a baseline record of physical condition and assure fitness for duty. (ii) Periodic, hazard-based medical monitoring or qualification-based fitness for duty evaluations required by regulations and standards, or as recommended by the occupational medicine services provider, will be provided on the frequency required. (iii) Diagnostic examinations will evaluate employee's injuries and illnesses to determine work-relatedness, the applicability of medical restrictions, and referral for definitive care, as appropriate.		No Gap	Scope of work does require human reliability, therefore it is not applicable to scope of construction of the DICE. This area will be reserved in the IIPP.

(iv) After a work-related injury or illness or an absence due to any injury or illness lasting 5 or more consecutive workdays (or an equivalent time period for those individuals on an alternative work schedule), a return to work evaluation will determine the individual's physical and psychological capacity to perform work and return to duty. (v) At the time of separation from employment, individuals shall be offered a general health evaluation to establish a record			
Appendix A to Part 851 – Worker Safety and Health Functional Areas	**Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A**	**851 vs Cal/OSHA**	**Action***

of physical condition. (h) The occupational medicine provider must monitor ill and injured workers to facilitate their rehabilitation and safe return to work and to minimize lost time and its associated costs. (1) The occupational medicine provider must place an individual under medical restrictions when health evaluations indicate that the worker should not perform certain job tasks.			

The occupational medicine provider must notify the worker and contractor management when employee work restrictionsare imposed or removed. (i) Occupational medicine provider physician and medical staff must, on a timely basis, communicate results of health evaluations to management and safety and health protection specialists to facilitate the mitigation of worksite hazards.'' (j) The occupational medicine provider must include measures to identify and manage the principal preventable causes of premature morbidity and mortality affecting worker health and productivity. (1) The contractor must include programs to prevent and manage these causes of morbidity when evaluations demonstrate their cost effectiveness. (2) Contractors must make available to the occupational medicine provider appropriate access to information from health, disability, and other insurance plans (de-identified as necessary) in order to facilitate this process. (k) The occupational medicine services provider must review and approve the medical and behavioral aspects of employee counseling and health promotional programs, including the following types: (1) Contractor-sponsored or contractor-supported employee assistance programs; (2) Contractor-sponsored or contractor-supported alcohol and other substance abuse rehabilitation programs; and (3) Contractor-sponsored or contractor-			Comply with Cal/OSHA regulations.

supported wellness programs. (4) The occupational medicine services provider must review the medical aspects of immunization programs, blood-borne pathogens programs, and bio-hazardous waste programs to evaluate their conformance to applicable guidelines. (5) The occupational medicine services provider must develop and periodically review medical emergency response procedures included in site emergency and disaster preparedness plans. The medical emergency responses must be integrated with nearby community emergency and disaster plans.			
Appendix A to Part 851 – Worker Safety and Health Functional Areas	**Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A**	**851 vs Cal/OSHA**	**Action***

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
9. Motor Vehicle Safety			
(a) Contractors must implement a motor vehicle safety program to protect the safety and health of all drivers and passengers in Government-owned or -leased motor vehicles and powered industrial equipment (i.e., fork trucks, tractors, platform lift trucks, and other similar specialized equipment powered by an electric motor or an internal combustion engine). (b) The contractor must tailor the motor vehicle safety program to the individual DOE site or facility, based on an analysis of the needs of that particular site or facility. (c) The motor vehicle safety program must address, as applicable to the contractor's operations:	Various Cal/OSHA requirements address elements of motor vehicle and powered industrial equipment safety such as 8CCR Chapter 4 Subchapter 7 Group 4 3649 - 3669. Industrial Trucks, Tractors, Haulage Vehicles, and Earthmoving Equipment as do California Department of Motor Vehicle rules. However, there is not a comparable requirement to have a motor vehicle safety program.	Partial Gap	Comply with Cal/OSHA regulations. Incorporate appropriate requirements not addressed by Cal/OSHA in the IIPP.
Appendix A to Part 851 – Worker Safety and Health Functional Areas	**Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A**	**851 vs Cal/OSHA**	**Action***
(1) Minimum licensing requirements (including appropriate testing and medical qualification) for personnel operating motor vehicles and powered industrial equipment; (2) Requirements for the use of seat belts and provision of other safety devices; (3) Training for specialty vehicle operators; (4) Requirements for motor vehicle maintenance and inspection; (5) Uniform traffic and pedestrian control devices and road signs; (6) On-site speed limits and other traffic rules; (7) Awareness campaigns and incentive programs to encourage safe driving; and (8) Enforcement provisions.			

Attachment 3

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
10. Electrical Safety			
Contractors must implement a comprehensive electrical safety program appropriate for the activities at their site. This program must meet the applicable electrical safety codes and standards referenced in § 851.23.	No comparable requirement.	Gap	Incorporate the requirement in the IIPP. NFPA 70E 2015 NFPA 70 (2017) (previously mentioned) as applicable to Construction.

Attachment 3

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
11. Nanotechnology Safety – Reserved			
The Department has chosen to reserve this section since policy and procedures for nanotechnology safety are currently being developed. Once these policies and procedures have been approved, the rule will be amended to include them through a rulemaking consistent with the Administrative Procedure Act.	Not applicable as there is not a specific Cal/OSHA requirement currently.	No require ment.	Not within the scope of construction of the DICE. This element will be reserved in the IIPP.

Appendix A to Part 851 – Worker Safety and Health Functional Areas	Cal/OSHA (or California) regulation that is "As Safe and Healthful" in lieu of 10 CFR 851 Appendix A	851 vs Cal/OSHA	Action*
12. Workplace Violence Prevention – Reserved			
The Department has chosen to reserve this section since the policy and procedures for workplace violence prevention are currently being developed. Once these policies and procedures have been approved, the rule will be amended to include them through a rulemaking consistent with the Administrative Procedure Act.	Not applicable as there is not a specific Cal/OSHA requirement for Construction currently.	No requirem ent.	This element will be reserved in the IIPP

*Maintain in The Plan = No gap exists but for clarification (or emphasis) LLNS will include a requirement in The Plan.
Incorporate in The Plan = A gap or partial gap exists. LLNS will include an 851 referenced 29 CFR 1926 requirement in The Plan.