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Region 2

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Office of Scientific Affairs
Industrial Hygiene and Safety Section
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Clovis, California 93611
8-451-3908

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Site Safety Plan for Alameda NAS

Activity Requested

Site Mitigation Branch requested that the Site Safety Plan for Alameda NAS be reviewed for conformity with applicable standards and guidelines. Additionally, a memorandum citing deficiencies and recommendation was requested.

Review Activity

The Industrial Hygiene and Safety Section (IHSS) has reviewed the Site Safety Plan prepared by the Navy Public Works Center. The criteria used by the IHSS is based upon the requirements found in CCR Title 8, 5192, California Site Safety Code, Department of Toxic Substances Control policies and guidelines, and the NIOSH/OSHA/USCG/EPA Guidance Manual.

Discussion/Comments and Recommendations

The Site Health and Safety Plan (HSP) is intended to be a functional stand alone document. The Plan is used to educate and familiarize the on-site workers with the site history, proposed work activities, known or potential health hazards, emergency action plans and the site safety information that is necessary to mitigate the risks from the identified hazards. Therefore, the final Site Safety Plan should be available at all times for on-site personnel to reference.

In utilizing the Site Safety Plan, field staff must be able to obtain sufficient information to compile an accurate assessment of the site safety issues associated with every site job function. The IHSS was unable to perform a comprehensive review of this plan due to a constructed time frame for this Project. However, after a brief review, the IHSS finds the SHSP of marginal quality, not specific to the site, vague and ambiguous. Specifically, the most obvious failures of the plan are noted below.

HEALTH AND SAFETY PLAN REVIEW

Name: Alameda NAS

Reviewed by: M. Boswell, MS

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Site Code: _____

Stage: _____

ITEM	REGULATORY DEFICIENCY	RECOMMENDATIONS
1	<p><u>Facility Background</u> 5192(b)4 requires an estimate the number of employees, specific job tasks and the duration of the activity.</p>	<p>The plan fails to provide a description of the project, including work tasks, objectives, and personnel requirements. The plan should include a summary of the information regarding wastes disposed of on-site, their location, physical state, chemical characteristics, and range of concentrations found to date by matrix. Condensed HSP's that are used for training and quick reference should also include this information.</p>
2	<p><u>Key Personnel</u> 5192(b)(2)(A)(5) requires the HSP to identify the lines of authority and responsibility of key personnel. The Plan does identify key personnel but does not provide for "Stop Work Authority"</p>	<p><u>Key Personnel and Responsibilities</u> Include the extent of the Site Safety Officer's (SSO) authority to correct site safety problems and the overall project responsibilities of the SSO (what the SSO will be doing besides site activity activities). Also include the site and office telephone numbers of key personnel and contractor/responsible party and agency personnel.</p>
3	<p>5192(b) and (c) require specific information be detained prior to employees entering the site. This includes information on the pathways of the hazardous substances, dispersion, physical and chemical properties and a complete health risk of each site task. Also required are Hazard Mitigation Measures that will be used to reduce the risk to employees.</p>	<p>Completely describe the physical hazards associated with each site activity (i.e. trenching, drilling, excavating, sampling) and the steps to be taken to minimize these hazards. Provide additional information on anticipated weather conditions, including historic mean temperatures and relative humidities. If heat stress potential is indicated (ambient temp >70°F), discuss its symptoms and the attendant hazards. Where trenching and drilling will be conducted, ensure that Underground Service Alert (USA) is contacted for guidance regarding underground utilities. Article 6 of the Construction Safety Orders (in Title 8, California Code of Regulations) contains specific regulatory requirements for trenching operations, as does 29 CFR 1926.</p>

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ITEM	REGULATORY DEFICIENCY	RECOMMENDATIONS
4	Plan fails to provide a risk assessment of the hazards identified as required by 5192(c)(7).	<p>Job Hazard Summary Provide a summary of the potential risks arising from the work being performed at the site. This will include impact on the workers, and will address hazards incurred by the activities at the site (i.e. vapors from exposed faces, particulates generated by drilling and excavation, safety issues, etc.). No method for controlling lead exposures were identified (which should include strict personal hygiene standards, decon, etc.).</p>
5	<p><u>Air Monitoring and Personal Protection</u> 5192(c)6 and (h)1 through (h)4 require personal monitoring. The Plan fails to describe the monitoring plan and the rationale used for PPE. The Plan fails to identify the level of protection selected for each job task on site.</p>	<p>Exposure Monitoring Plan Provide a plan for all aspects of the area, including worker and community exposure programs. Describe rationales and methodologies for each program, and locations for area and personal monitoring. Equipment calibration protocols should be included as an appendix to the HSP.</p> <p>Exposure hazards to consider include airborne vapors, gases and particulates, heat stress, and noise.</p> <p><u>Personal Monitoring</u> CFR 29 1910.120 and CCR 8 5192 require personal monitoring of those employees likely to have the highest exposures. DTSC interprets this as requiring personal sample collection devices such as pumps and sampling media, or passive dosimeters, with the media quantitatively analyzed for the contaminants of concern by an AIHA-certified laboratory. The personal sampling should be performed in the accordance with NIOSH methods, if possible. Summaries of the methods used should be included in the monitoring plan. Note that this sampling is performed in addition to DRI monitoring. If no personnel monitoring is anticipated, provide the discussion logic.</p>

5.	ITEM	REGULATORY DEFICIENCY	RECOMMENDATIONS
	5	<p><u>Air Monitoring and Personal Protection (continued)</u></p>	<p><u>Dust Monitoring</u> A determination should also be made to estimate the worse-case concentration of contaminants (such as lead and semi-volatile organics) present in 10 mg/m³ of airborne particulates. These estimated concentrations are then compared with established standards for individual compounds to determine if the standards would be exceeded. If yes, then the action level for dust/particulates should be set at a level such that the standard for the individual contaminant would not be exceeded. In this case, portable aerosol monitors should be supplemented with personal sampling for the specific contaminant(s) using NIOSH methods.</p> <p><u>Heat Stress</u> The following issues should be discussed: anticipated temperatures, worker acclimatization, symptoms of the various stages of heat stress, first aid, atmospheric monitoring, personal (physiological) monitoring, and parameters for establishing work-rest cycles. Work-rest cycles must take the following criteria into account: personnel work load (energy expended), degree of acclimatization, and the type of protective clothing used. Note that the most readily available work-rest cycle tables assume that workers will be clothed in cotton overalls or work clothes; if workers will be wearing semi-impermeable or impermeable garments, such tables will be invalid unless substantial adjustments are made.</p> <p><u>Noise</u> This section will include a description of the hearing conservation program that will be employed at the work site. Note that heavy equipment, has the potential to generate enough noise to exceed the PEL.</p>
			<p><u>General</u> Include rationales for PPE (Personal Protective Equipment) action level determinations, which must take into account the potential for additive effects of chemical exposures.</p>

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ITEM	REGULATORY DEFICIENCY	RECOMMENDATIONS
6	<p><u>Personal Protection</u> The Plan fails to identify the criteria used for PPE selection as required by 5192(g)(3) through (5).</p>	<p>Personal Protective Equipment (PPE) and Engineering Controls CCR Title 8 5192 requires HSPs to have a written PPE program, and lists the requirements for such a program. This reference should be consulted when preparing this section of the HSP. Applicable portions of the firm's formal PPE program may be included as an appendix.</p> <p><u>Protective Clothing</u> Discuss protective clothing selections and the rationale for the selections. This must be more specific than "chemical resistant" coveralls, gloves, etc., and must include rationale for selection.</p>
7	<p>The Plan fails to adequately describe provisions for site control 5192(d)(1).</p>	<p>Site Control (Work Zones and Security Measures) In this section, provide a site and area map with exclusion, contamination reduction and support zones outlined, and show the location of the decontamination area. Define the site control/security measures; these include items such as fencing, locked gates, security guards, flagging, etc. Describe on-and-off-site communications methods and systems.</p>
8	<p><u>Decontamination</u> - 5192(k) The Plan fails to describe the decon procedures that will be used on this project.</p>	<p>Decontamination Measures Describe the decontamination (decon) procedures that <u>will actually be used</u> for personnel, personal protective equipment, sampling equipment, and construction equipment. Detail the decon procedures, including how the decon line and rest area will be set up, the steps in the decon process (for each level of protection), provisions for collection and disposal of contaminated materials and liquids, and a listing of decon equipment and solutions that will be used (i.e. soap and water, steam cleaner, etc.). Include provisions for personal hygiene (hand/face wash, showers; see "Sanitation" below).</p>
9	<p>The Plan fails to provide for sanitary facilities as per 5192(n).</p>	<p>Sanitation Describe the provisions that will be made to ensure proper sanitation facilities are available for site personnel. This includes adequately stocked washing facilities and showers, toilets, potable water, etc.</p>

FROM TOXIC SUBSTANCE CONTROL ACT 10 85/13738

P006/007

There may be additional requirements found in Cal-OSHA's General Industrial Safety Orders and Federal OSHA's Hazardous Waste Operations and Emergency Response (HAZWOPER), including recordkeeping, worker exposure monitoring, medical surveillance training and respiratory protection.

The Department is unable to foresee all health and safety hazards associated with this remedial action. There may be health and safety hazards which were not apparent during the review of the HSP and if uncorrected could cause serious illness or injury. It should be noted that the employer is ultimately and directly responsible to provide a safe and healthful working environment. The Department is not charged with the regulatory oversight of the work place. Therefore, the review of this document does not constitute nor imply approval by the Department or compliance with all occupational health and safety regulations.

An Industrial Hygienist from the Office of Scientific Affairs may perform a field audit in order to confirm the implementation of the provisions and specifications presented in the HSP.

Thank you for the opportunity to comment on the Site Safety Plan for Alameda NAS. If you have any questions regarding these comments, please contact me at 8-451-3908.

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