

Department of Toxic Substances Control

CEQA Environmental Document Analysis/Checklist:

*Resource Conservation and Recovery Act (RCRA)
equivalent Hazardous Waste Facility Permit pursuant
to California Health and Safety Code section 25200 to
the Lawrence Livermore National Laboratory (LLNL)
Site 300*



California Environmental Protection Agency

Office of Planning & Environmental Analysis
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Introduction

This Environmental Document Analysis/Checklist was prepared pursuant to California Public Resources Code, Section 21166, and California Code of Regulations, title 14, Sections 15162, 15163 and 15164 to assess whether a previously certified Environmental Impact Report or approved Negative Declaration prepared for previous hazardous waste facility permit decisions remain sufficient under the California Environmental Quality Act (CEQA) for purposes of the Department of Toxic Substances Control's (DTSC's) approval of the proposed permit renewal (Project), or if an Addendum, Supplemental Environmental Impact Report (EIR) or Subsequent Environmental Impact Report (EIR) should be or is required to be prepared.

Section 15162 of the CEQA Guidelines provides that once an EIR or negative declaration has been certified for a project, no further environmental review under CEQA is required for any further discretionary review of the project or modifications to the project unless:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR or negative declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

A lead or responsible agency may prepare an addendum to an adopted negative declaration if some changes or additions are necessary but none of the conditions described in CEQA Guidelines, section 15162 calling for preparation of a subsequent EIR have occurred. (CEQA

Guidelines, section 15164, subd, (b).)

CEQA allows lead agencies issuing a discretionary approval to restrict review of modifications to a previously approved project to the incremental effects associated with the proposed modifications, compared against the anticipated effects of the previously approved Project at build-out. In other words, if the project under review constitutes a modification of a previously approved project which was subject to prior final environmental review, the “baseline” for purposes of CEQA is adjusted such that the originally approved project is assumed to exist. (See *Melom v. City of Madera* (2010) 183 Cal.App.4th 41 (city properly relied on an addendum in analyzing changes to a site plan for a proposed shopping center); *Benton v. Board of Supervisors* (1991) 226 Cal. App. 3d 1467, 1475-1482 (upholding county’s adoption of addendum to negative declaration for revision to winery project’s location; county could restrict its review to the incremental effects of the relocation, rather than having to reconsider the overall impacts of the winery); and *Temecula Band of Luiseño Mission Indians v. Rancho California Water Dist.* (1996) 43 Cal. App. 4th 425 (water district properly focused analysis of pipeline project relocation solely on the incremental effects of relocating the pipeline, and did not need to consider the cumulative effects of the pipeline in conjunction with the program).

Explanation of Environmental Document Analysis/ Checklist Contents

The following describes the contents of the various sections of the Environmental Document Analysis/Checklist:

SECTION A: PROPOSED PROJECT DESCRIPTION

This section provides a description of the proposed Project as contained in the administratively complete permit application, including all previously permitted activities that will be continued upon renewal, and any proposed additions or modifications, including closure and corrective action activities.

SECTION B: PROJECT BACKGROUND

This section provides a description of previous permit decisions and authorized activities included in the initial permit, any modifications and corrective action, and date(s) of approval(s).

This section also identifies the CEQA documents (i.e., certified Environmental Impact Report, approved Negative Declaration, Notice of Exemption) prepared for all previous permit and corrective action decisions. The CEQA document title, name of lead agency, date of certification or approval, and State Clearinghouse (SCH) number are also provided.

SECTION C: ANALYSIS/CHECKLIST

Following is an explanation of the content provided in each column of the Analysis/Checklist:

– Project Activities

- **Prior Environmental Document That Analyzed Project Activities.** This column provides a cross-reference to the pages of the previous Environmental Impact Report or Negative Declaration and related documents where previously approved Project activities were analyzed under CEQA.
- **Discussion.** This section provides a brief overview of the approach DTSC took to analyze each environmental resource-specific section of the Section C.

– Environmental Resource

The purpose of this checklist is to evaluate the environmental resource categories in terms of any “changed condition” (i.e., changed circumstances, project changes, or new information of substantial importance) that may result in environmental impact significance conclusions different from those found in the previously adopted Negative Declarations. The row titles of the checklist include the full range of environmental topics, as presented in Appendix G of the State CEQA Guidelines. The column titles of the checklist have been modified from the Appendix G presentation to help answer the questions to be addressed pursuant to CEQA Section 21166 and State CEQA Guidelines Section 15162. A “no” answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact because it was analyzed and addressed in a previously adopted Negative Declaration. For instance, the environmental categories might be answered with a “no” in the checklist because the impacts associated with the proposed permit renewal were adequately addressed in the previous Negative Declaration, and the environmental impact significance conclusions of that document remain applicable. The purpose of each column of the checklist is described below.

- **Where Impact Was Analyzed in Prior Environmental Documents.** This column provides a cross-reference to the pages of the previous Environmental Impact Report or Negative Declaration and related documents where information and analysis may be found relative to the environmental resource listed under each topic.
- **Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?** Pursuant to CEQA Guidelines section 15162, subdivision (a)(1), this column indicates whether substantial changes are proposed in the Project which will require major revisions of the previous Environmental Impact Report or Negative Declaration

due to the involvement of new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts.

- **Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?** Pursuant to CEQA Guidelines section 15162, subdivision (a)(2), this column indicates whether there have been substantial changes with respect to the circumstances under which the proposed Project is undertaken which will require major revisions to the previous Environmental Impact Report or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- **New Information Showing New or Substantially More Severe Impacts?** Pursuant to CEQA Guidelines section 15162, subdivision (a)(3)(A-D), this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous Environmental Impact Report or Negative Declaration was certified as complete, shows any of the following:
 - ✓ The Project will have one or more significant effects not discussed in the previous Environmental Impact Report or Negative Declaration.
 - ✓ Significant effects previously examined will be substantially more severe than shown in the previous Environmental Impact Report.
 - ✓ Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the Project, but the project proponents decline to adopt the mitigation measure or alternative.
 - ✓ Mitigation measures or alternatives which are considerably different from those analyzed in the previous Environmental Impact Report, and would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Generally, under CEQA, information appearing after project approval by the lead agency does not require reopening of that approval. (CEQA Guidelines, section 15162, subd. (c).) In fact, once an EIR or negative declaration is certified or approved, there is a statutory presumption against additional environmental review. (See *San Diego Navy Broadway Complex Coalition v. City of San Diego* (2010) 185 Cal.App.4th 924, 934; *Moss v. County of Humboldt* (2008) 162 Cal.App.4th 1041, 1049-1050; Pub. Resources Code, Section 21166.) DTSC has nevertheless considered readily available information to identify and consider whether the information is of the type that triggers a subsequent EIR under the CEQA.

- **Prior Environmental Documents Provide Mitigation Measures to Address Effects?** Pursuant to CEQA Guidelines section 15162, subdivision (a)(3), this column indicates whether the previous Environmental Impact Report or Negative Declaration provides mitigation measures to address effects in the related impact category. If these mitigation measures will be implemented with the proposed project, then a “yes” response will be provided in either instance. If “no” is indicated, then this would indicate that the previous Environmental Impact Report or Negative Declaration and this Environmental Document Analysis/Checklist concluded that impacts would not occur with the proposed Project, or that the impact is not significant, and no additional mitigation measures are needed.
- **Discussion.** This section provides information about the particular environmental resource, how the proposed Project relates to the resource and an identification of any mitigation measures that may be required or that may have been identified as required in the previous Environmental Impact Report or Negative Declaration that apply to the Project, and a discussion of the conclusions relating to the analysis contained in each section.

SECTION D: DETERMINATION OF APPROPRIATE ENVIRONMENTAL DOCUMENT

This section contains the findings pursuant to California Code of Regulations, title 14, Sections 15162, 15163 and 15164 based on the information and analysis contained in the environmental Document Analysis/Checklist as to whether the previously certified Environmental Impact Report or approved Negative Declaration prepared for the initial facility permit decision remains sufficient for purposes of DTSC’s approval of the proposed permit renewal (Project), or if an Addendum, Supplement or Subsequent environmental document is required to be prepared.

SECTION E: APPROVAL SIGNATURES

This section identifies the individuals responsible for preparation and approval of the Environmental Document Analysis/Checklist.

ENVIRONMENTAL DOCUMENT ANALYSIS/ CHECKLIST

SECTION A: PROPOSED PROJECT DESCRIPTION

The project consists of the Department of Toxic Substances Control's (DTSC's) consideration to renew a Resource Conservation and Recovery Act (RCRA) equivalent Hazardous Waste Facility Permit ("proposed Permit" or "the proposed project") pursuant to California Health and Safety Code section 25200 to the Lawrence Livermore National Laboratory (LLNL).

If approved as proposed, the Permit would be in effect for 10 years and would subject the Hazardous Waste Facility (HWF) to the terms and conditions set forth in the Permit and in the Part "B" Application (Operation Plan) dated January 2015, which would be incorporated by reference into the Permit. The proposed draft Permit is incorporated by reference. The equipment and structures and operational areas and facilities included under the proposed Permit are referred to hereafter as the "Hazardous Waste Facility" (HWF or "Facility").

If issued, the proposed Permit under consideration by DTSC will authorize LLNL to continue to perform the following permitted activities in the units specified below at LLNL Site 300 or "the Site":

The HWF includes the operational units, buildings and areas displayed below. Changes to existing operations are indicated in Table 1 below.

Table 1

<i>Permitted Unit</i>	<i>Date Authorized</i>	<i>Proposed Changes With Proposed Project</i>
Explosive Waste Treatment Facility (EWTF), which includes the following:	10/9/1997	
Open Burn Cage	10/9/1997	None
Open Burn Pan	10/9/1997	Reduce treatment rate from 150 pounds per event per day to 100 pounds per event per day
Open Detonation Unit	10/9/1997	Reduce treatment rate from 350 pounds per event per day to 100; reduced maximum annual amount of treatment from 35,000 pounds to 1000.
Explosives Waste Treatment Residue Storage Unit 1 – near Open	10/9/1997	No change

Burn Pan and Open Burn Cage (formerly known as S-1) Explosives Waste Treatment Residue Storage Unit 2 – near Open Detonation (formerly known as S-2)	10/9/1997	No change
Explosive Waste Storage Facility (EWSF), which includes the following: Magazine 2 (M2) Magazine 3 (M3) Magazine 4 (M4) Magazine 5 (M5) Magazine 816 (M816) (formerly known as B816) Container Storage Area, Building 883 (B883)	5/23/1996 5/23/1996 5/23/1996 5/23/1996 5/23/1996 5/23/1996	No change No change No change No change No change Increase quantity of hazardous waste stored from 3,300 to 5, 500 gallons

The proposed project activities are performed within various operational areas and buildings specified in the attached proposed Permit.

SECTION B: PROJECT BACKGROUND

On June 18, 2008, DTSC circulated for public review and comment an Initial Study and Draft Negative Declaration and for a Draft HWFP permit (2008 Draft Permit). However, that process was not completed due to the need to consider additional health and ecological risk information prior to making a decision on the 2008 Draft Permit. During this interval, LLNL conducted soil sampling at Site 300 per a Soil Sampling Plan (LLNL-TR-400074) as required by DTSC. The results of soil sampling were presented in a Soil Sample Report (LLNL-TR-588454) which was approved by DTSC in December 2013. The Soil Sample Report concluded that the samples taken were below background level concentrations and therefore, an Ecological Risk Assessment is not required. On March 21, 2016, DTSC released the proposed Permit (Draft Permit). The Draft Permit is considered a new draft permit under 22 C.C.R. § 66271.13(b)(1).

Facility History:

The Facility was established by the United States Department of Energy (US DOE) and the University of California in 1955 as an experimental test site for explosives testing. Prior to 1992, the Facility operated the B829 High Explosives Burn Pits (B829) and B883 Container Storage Area (B883) under interim status granted by the United States Environmental Protection Agency (US EPA). In 1992, LLNL submitted a permit application for the operation of the Explosive Waste Storage Facility (EWSF) and Building 883 (B883). In 1993, LLNL submitted a closure plan for the closure of B829, and a permit application for the operation of a new Explosives Waste Treatment Facility (EWTF). On May 23, 1996, DTSC issued a hazardous waste facility permit (permit) for the operation of the (EWSF) and B883. DTSC adopted a negative declaration for that project prior to reaching its permit decision. On October 9, 1997, DTSC issued a permit for the EWTF operation. Similarly, DTSC adopted a Negative Declaration for that project prior to reaching its permit decision. The closure plan for B829 was approved in 1997; and in 2003, DTSC issued a HWF post-closure permit for the B829 High Explosives Burn Pits. In 2005, the US DOE submitted a consolidated permit renewal application for the continued operation of B883, EWSF and EWTF.

The proposed permit renewal includes all of the activities currently authorized under the permits issued on May 23, 1996 and October 9, 1997, and their modifications. The various areas, buildings, and permitted units and activities that are part of the proposed permit currently under consideration are listed and described in the attached draft permit. The locations of these areas, buildings and units are depicted on maps within the draft permit.

The draft permit contains all activities previously authorized in the modified RCRA equivalent permits and any new activities that will be authorized by the new permit. As explained above in the Introduction, this Environmental Document Analysis assesses whether a previously certified Environmental Impact Report or approved Negative Declaration prepared for previous hazardous waste facility permit decisions remain sufficient under the California Environmental Quality Act (CEQA) for purposes of the Department of Toxic Substances Control's (DTSC's) approval of the proposed permit renewal (Project), or if an Addendum, Supplemental Environmental Impact Report (EIR) or Subsequent EIR is required to be prepared. Based on its examination, DTSC has concluded that the HWF permit activities to be implemented by the proposed permit would not result in any of the conditions described in California Code of Regulations, title 14, section 15162 that would require a subsequent EIR or subsequent Negative Declaration. DTSC has further concluded that the issuance of an Addendum to the previous Negative Declarations is appropriate.

Description of Facility Operations:

The Facility is primarily an explosives test facility that supports the LLNL weapons program in research, development, and testing associated with non-nuclear weapons components. The Facility's operations include chemical formulation of explosives, machining explosive charges, and assembling machined charges before they are sent to the on-site test firing facilities. Hazardous waste generated from these activities is sent to the on-site waste

management facilities for treatment, packaging, or storage; stored hazardous waste is subsequently shipped to an off-site disposal facility. In addition to accepting on-site generated hazardous waste, the Facility also accepts explosives waste from the LLNL Main Site (EPA Identification Number CA2890012584) for treatment and storage.

Table 2 lists the permit modifications that DTSC has approved since the 1996 and 1997 Permit approvals.

Table 2

Modification Type	Date of Approval	Description	Type of Environmental Document
Class 1 & 2	11/1999	Training Courses, job titles and description, minor corrections	CEQA Notice of Exemption
Class 1*	9/2007	Transfer of operations from Regents of University of California to LLNL	CEQA Notice of Exemption

A review of the relevant information submitted in support of this Environmental Document Analysis revealed certain changes in the project from those previously described in the 1996 and 1997 Initial Studies/Negative Declarations including a decrease of 1,622 pounds of explosive waste of the total storage capacity at any one time and an increase of 2,200 gallons of non-explosive hazardous waste that may be stored at one time. However, these changes were not considered to be substantial in that they do not change the previous impact findings of the 1996 and 1997 Initial Studies/Negative Declarations. Impact levels for each of the environmental resource areas are identified in this document as remaining to be less than significant or as remaining to have no impact. As described in the analysis provided below, there is new information or changes to the project related to the following environmental resource areas:

- Air Quality: Current information related to nonattainment status and applicable air quality plans;
- Geology and Soils: Current information related to a recent update to an earthquake forecast modeling system;
- Greenhouse gas (GHG) Emissions: Addition of GHG emissions as an environmental resource issue area; and
- Hazards and Hazardous Materials: Increase quantity of non-explosive hazardous waste storage capacity from 3300 to 5500 gallons and a decrease in explosive hazardous waste of 1,622 pounds of the total storage capacity at any one time. In addition, the EWTF will have a treatment capacity decrease of 300 pounds of explosive hazardous waste per event, and an annual treatment capacity limit decrease of 39,000 pounds.

The new information and changes to the project were analyzed below, and DTSC has concluded that they do not result in any of the conditions described in CEQA Guidelines section 15162 that would require preparation of a subsequent EIR or subsequent negative declaration. Additionally, DTSC determined that the identified changes to the project are consistent with Section 15164 of the CEQA Guidelines, and that an addendum to the prior negative declarations is the appropriate CEQA documentation.

SECTION C: ANALYSIS/ CHECKLIST

Project Activities	Prior Environmental Document That Analyzed Project Activities
<p>1) Hazardous waste permit renewal for operation of Container Storage Area (CSA) and Explosives Waste Storage Facility (EWSF) at Site 300 including the following project activities: operation of 5 explosives waste storage magazines (M2, M3, M4, M5, and M816 [formerly known as B816]); and operation of the CSA in Building 883 (B883).</p> <p>2) Hazardous waste permit renewal for operation of Explosives Waste Treatment Facility (EWTF) at Site 300 including the following project activities: operation of the Open Burn Cage, Operation of the Open Burn Pan, operation of the Open Detonation Unit, and operation of Explosives Waste Treatment Residue Storage Units 1 and 2 (formerly known as S-1, and S-2 respectively).</p>	<p><u>Operation of CSA and EWSF</u> - DTSC, Negative Declaration and Supporting Initial Study (1996 Negative Declaration), LLNL – Site 300 CSA and EWSF, 1996 (SCH# 96032010), general reference</p> <p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996 (SCH# 96032010), general reference</p> <p><u>Operation of EWTF</u> - DTSC, Negative Declaration and Supporting Special Initial Study (1997 Negative Declaration), LLNL – Site 300, New EWTF and Closure of B829, 1997 (SCH# 97062086), general reference</p>
<p><u>Discussion:</u></p> <p>The current project involves consolidating a hazardous waste permit renewal for the active hazardous waste management facilities listed in Table 1 above (EWSF, EWTF, and B883 CSA). Those facilities were previously regulated by two separate hazardous waste facility permits, but the project activities are currently being proposed to be regulated by a single hazardous waste facility permit.</p> <p>The active facilities handle hazardous and explosives wastes generated at Site 300 and explosives waste generated at the LLNL Main Site (EPA ID No. CA2890012584) located in Livermore, California.</p> <p>In 1996, DTSC issued a permit to operate the B883 CSA and EWSF. DTSC issued a separate permit in 1997 for the construction and operation of the EWTF. LLNL, Site 300 is applying for a permit renewal for the active facilities (i.e. EWSF, EWTF, and B883 CSA) under one permit application. The facilities and activities are described briefly in the draft Permit. A detailed description of each of the active hazardous waste management facilities is included in the Part IV, Facility Design section of the proposed Operation Plan. Under the permit renewal, permit activities will change slightly as noted in Table 1.</p>	

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents. (document name and page number)	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Effects?
1. AESTHETICS: Would the project:					
a. <i>Have a substantial adverse effect on a scenic vista?</i>	<p>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 18-19.</p> <p>Operation of CSA and EWSF - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, p 18.</p> <p>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 55-56.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required.
b. <i>Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state</i>	Refer to 1a	No	No	No	No prior mitigation measures were

<i>scenic highway?</i>					required and no mitigation is required.
<i>c. Substantially degrade the existing visual character or quality of the site and its surroundings?</i>	Refer to 1a	No	No	No	No prior mitigation measures were required and no mitigation is required.
<i>d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</i>	Refer to 1a	No	No	No	No prior mitigation measures were required and no mitigation is required.

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations and the SWEIS and SWEIS Supplement evaluated the proposed Project's effects on aesthetic resources and concluded that the Project would not affect aesthetic resources. Views of Site 300 primarily consist of natural, undeveloped areas with sparsely scattered buildings or groups of buildings. Site 300 is visible from Tesla Road, Corral Hollow Road, and the Carnegie State Vehicular Recreation Area. Tesla Road is designated as a scenic route in the 1994 Alameda County General Plan. When approaching Site 300 from the west on Tesla Road, views of the site consist of rolling hillsides. No structures or landscaping on Site 300 are presently visible from this roadway. Views of Site 300 from the Carnegie State Vehicular Recreation Area consist primarily of undeveloped hillsides. Views of Site 300 from Corral Hollow Road consist primarily of buildings and supporting infrastructure.

All project activities, which are comprised of continued EWSF, EWTF, and B883 CSA waste management facility operations, would occur in existing buildings and systems, and would not cause a substantial adverse effect on a scenic vista or scenic resources. The project would not substantially degrade the existing visual character or quality of the site and its surroundings because no construction is included with the proposed Permit. The project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area because no new lighting would be installed.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

Part A Permit Application and Part B Permit Application for Hazardous Waste Treatment and Storage Facilities LLNL Site 300, January 2015.

US DOE, 2005, Final Site-wide Environmental Impact Statement for Continued Operation of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Impact Statement, DOE/EIS-0348 and DOE/EIS-0236-S3 (SWEIS), pp. 5.2-17-18, and 5.3-17-18.

US DOE, 2011, Supplement Analysis of the 2005 Final Site-wide Environmental Impact Statement For Continued Operation of Lawrence Livermore National Laboratory, DOE/EIS-0348-SA-03 (SWEIS Supplement), pp. S-2, 3-7.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
2. AGRICULTURE AND FORESTRY RESOURCES. Would the project:					
a. <i>Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</i>	<p><u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, p. 6.</u></p> <p><u>Operation of CSA and EWSF - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, p 8, 20.</u></p> <p><u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 31-32.</u></p>	No	No	No	No prior mitigation measures were required and no mitigation is required.
b. <i>Conflict with existing zoning for agricultural use, or a Williamson Act contract?</i>	Refer to the references in 2a.	No	No	No	No prior mitigation measures were required and no mitigation is required
c. <i>Conflict with existing zoning</i>	Refer to the references in 2a.	No	No	No	No prior

<p><i>for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?</i></p>					<p>mitigation measures were required and no mitigation is required</p>
<p>d. <i>Result in the loss of forest land or conversion of forest land to non-forest use?</i></p>	<p>Refer to the references in 2a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>e. <i>Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?</i></p>	<p>Refer to the references in 2a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p><u>Discussion:</u></p> <p>The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project's effects on agriculture and concluded that Site 300 operations would not affect agriculture. There is no prime agricultural land at Site 300, and grazing and other agricultural activities are excluded from Site 300. All project activities, which are comprised of continued EWSF, EWTF, and B883 CSA waste management facilities operations, would occur in existing buildings and systems and would not cause a change to agricultural uses in the areas near LLNL Site 300 because agricultural areas are located outside the facility boundaries.</p> <p>Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.</p> <p>References:</p>					

SWEIS, pp. 3-22, 4.2-3.

SWEIS Supplement, pp. 5-2, 5-3.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
3. AIR QUALITY. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	<p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 3-4, 20.</p> <p>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, p. 19-20.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required.
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Refer to references in 3a.	No	No	No	No prior mitigation measures were required and no

					mitigation is required.
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Refer to references in 3a.	No	No	No	No prior mitigation measures were required and no mitigation is required.
d. Expose sensitive receptors to substantial pollutant concentrations?	Refer to references in 3a.	No	No	No	No prior mitigation measures were required and no mitigation is required.
e. Create objectionable odors affecting a substantial number of people?	Refer to references in 3a.	No	No	No	No prior mitigation measures were required and no mitigation is required.

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed Project's effects on air resources and concluded that Site 300 operations would result in a less than significant impact to air quality.

Site 300 is located in the San Joaquin Valley in the area designated as the San Joaquin Valley Air Basin by the California Air Resources Board (CARB). The air basin is defined by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south.

The climate of the project area is typical of inland valleys in California, with hot dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100 degrees, with lows in the 60's. In the winter, daytime temperatures are usually in the 50's, with lows around 35 degrees. Radiation fog is common in the winter, and may persist for days. Winds are predominantly up-valley (from the north) in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction.

Both the U. S. Environmental Protection Agency (EPA) and the CARB have established ambient air quality standards for common pollutants under the Federal Clean Air Act and the California Clean Air Act. These ambient air quality standards are levels of contaminants that represent safe levels that avoid specific adverse health effects associated with each pollutant.

Relevant federal and California ambient air quality standards are summarized in Table 3.

The State of California regularly reviews scientific literature regarding the health effects and exposure to particulate matter and other pollutants. On May 3, 2002, the CARB staff recommended lowering the level of the annual standard for PM₁₀ and establishing a new annual standard for PM_{2.5} (particulate matter 2.5 microns in diameter and smaller). The new standards became effective on July 5, 2003.

TABLE 3

NATIONAL AND CALIFORNIA AIR QUALITY STANDARDS

Objective	Measurement	National	California
PM₁₀ - Particulate Matter Less Than 10 Microns			
To improve visibility & prevent health effects	Annual Arithmetic Mean	----	20 µg/m ^{3,(1)}
	24 hour concentration	150 micro g/m ^{3,(2)}	50 micro g/m ^{3,(1)}
PM_{2.5} - Particulate Matter Less Than 2.5 Microns			
To improve visibility & prevent health effects	Annual Arithmetic Mean	12 micro g/m ^{3,(3)}	12 micro g/m ^{3,(1)}
	24 hour concentration	35 micro g/m ^{3,(4)}	----

Ozone			
To prevent eye irritation and breathing difficulties	One hour concentration	----	0.09 ppm ⁽¹⁾ 180 µg/m ^{3,(1)}
	8 hour concentration	0.075 ppm ⁽⁵⁾ 147 µg/m ^{3,(5)}	0.070 ppm ⁽¹⁾ 137 µg/m ^{3,(1)}
Nitrogen Dioxide			
To prevent health risk and improve visibility	Annual Arithmetic Mean	0.053 ppm ⁽¹⁾ 100 µg/m ^{3,(1)}	0.030 ppm ⁽¹⁾ 57 µg/m ^{3,(1)}
	One hour	0.1 ppm ⁽⁶⁾ 188 µg/m ^{3,(6)}	0.18 ppm ⁽¹⁾ 339 µg/m ^{3,(1)}
Sulfur Dioxide			
To prevent increase in respiratory disease, crop damage, and odor problems	24 hour mean concentration	-----	0.04 ppm 105 µg/m ^{3,(1)}
	3 hour mean concentration	0.5 ppm ⁽⁷⁾ 1,300 µg/m ^{3,(7)}	-----
	One hour mean concentration	0.075 ppm ⁽⁸⁾ 196 µg/m ^{3,(8)}	0.25 ppm 655 µg/m ^{3,(1)}
Carbon Monoxide			
To prevent carboxyhemoglobin levels greater than 2%	8 hour mean concentration	9 ppm ⁽⁷⁾ 10 µg/m ^{3,(7)}	9 ppm ⁽¹⁾ 10 mg/m ^{3,(1)}

	One hour concentration	35 ppm ⁽⁷⁾ 40 µg/m ³ , ⁽⁷⁾	20 ppm ⁽¹⁾ 23 mg/m ³ , ⁽¹⁾
Lead			
To prevent health problems	30-day	-----	1.5 micro g/m ³ , ⁽⁹⁾
	Rolling 3 month Average	0.15 µg/m ³ , ⁽¹⁾	-----

ppm - parts per million
µg/m³ - micrograms per cubic meter
mg/m³ - milligrams per cubic meter

- (1) not to be exceeded
- (2) not to be exceeded more than once per year on average over 3 years
- (3) not to be exceeded, averaged over 3 years
- (4) not to be exceeded, 98th percentile of measured daily concentrations, averaged over 3 years
- (5) not to be exceeded. annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
- (6) not to be exceeded, 98th percentile of measured 1-hour daily maximum concentrations, averaged over 3 years
- (7) not to be exceeded more than once per year
- (8) not to be exceeded, 99th percentile of measured 1-hour daily maximum concentrations, averaged over 3 years
- (9) not to be equaled or exceeded

As described in the 1996 and 1997 Initial Studies/Negative Declarations, the primary air quality problems in the San Joaquin Valley Air Basin are ozone and particulate matter. Carbon monoxide has been a problem in the past within the San Joaquin Valley Air Basin in larger cities such as Fresno, Bakersfield, Modesto and Stockton.

Ozone is produced by chemical reactions, involving nitrogen oxides (NOx) and reactive organic gases (ROG) that are triggered by sunlight. Nitrogen oxides are created during combustion of fuels, while reactive organic gases are emitted during combustion and evaporation of organic solvents. In the San Joaquin Valley Air Basin, ozone is a seasonal problem occurring roughly from April through October.

Suspended particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. "Inhalable" PM consists of particles less than 10 microns in diameter, and is defined as PM₁₀. Particles between 2.5 and 10 microns in diameter arise primarily from natural processes, such as windblown dust or soil. Fine particles are less than 2.5 microns in diameter (PM_{2.5}). PM_{2.5}, by definition, is included in PM₁₀. Fine particles are produced mostly from combustion or burning activities. Fuel burned in cars and trucks, power plants, factories, fireplaces and wood stoves produces fine particles.

Carbon monoxide is a local pollutant in that high concentrations are found only very near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. Concentrations typically are highest during stagnant air periods within the period November through January.

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Basin is a non-attainment area (standards have not been attained) for ozone and PM_{2.5}. Under only the state Clean Air Act, the San Joaquin Valley Air Basin is non-attainment for PM₁₀. The air basin is either attainment or unclassified for other ambient standards. Table 3-1 lists the attainment status in the San Joaquin Valley.

TABLE 3-1
San Joaquin Valley Attainment Status

Pollutant	Designation/Classification	
	<u>Federal Standards</u>	<u>State Standards</u>
Ozone - One hour	No Federal Standard	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme ^a	Nonattainment
PM ₁₀	Attainment ^b	Nonattainment
PM _{2.5}	Nonattainment ^c Serious	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment

^a Although the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to

extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

^b On September 25, 2008, EPA re-designated the San Joaquin Valley to attainment for the PM₁₀ National Ambient Air Quality Standard (NAAQS) and approved the PM₁₀ Maintenance Plan.

^c The Valley is designated nonattainment/Serious for the 1997 PM_{2.5} NAAQS.

To meet federal Clean Air Act requirements, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted an Ozone Attainment Demonstration Plan and in June 2003 adopted the 2003 PM₁₀ Plan. The most recent federal ozone plan (Amended 2002 and 2005 Rate of Progress Plan for San Joaquin Valley Ozone, December 2002) determined that it could not be demonstrated that the federal ozone standards could be met by the required date of November 15, 2005. In December 2003, the SJVAPCD requested that the U.S Environmental Protection Agency (EPA) downgrade the Valley's eight hour ozone status from "severe" to "extreme" nonattainment, and in April 2004 the U.S. EPA approved the downgrade. The downgrade became effective on June 4, 2010. The plan to address this is expected to be due to EPA in 2016.

To meet California Clean Air Act requirements, the SJVAPCD drafted the 2003 Triennial Plan for updating the Air Quality Attainment Plan (AQAP) and addressing the California ozone standard. The California Legislature, when it passed the California Clean Air Act in 1988, excluded PM₁₀ from the basic planning requirements of the Act. The Act did require the CARB to prepare a report to the Legislature regarding the prospect of achieving the state ambient air quality standard for PM₁₀. This report did not recommend imposing a planning process similar to that for ozone or other pollutants for achievement of the standard within a certain period of time.

On April 16, 2015, SJVAPCD submitted and adopted a plan for the 1997 PM_{2.5} Standard including a request to CARB to extend the attainment deadline for the 24-hour PM_{2.5} standard to 2018 and the Annual PM_{2.5} Standard to 2020. CARB approved the SJVAPCD 2015 PM_{2.5} Plan on May 21, 2015 and on June 25, 2015, CARB submitted to EPA the SJVAPCD 2015 Plan for the 1997 PM_{2.5} Standard. That plan addresses the federal 24-hour PM_{2.5} standard and lays out a strategy for demonstrating attainment as expeditiously as possible.

Air emissions from the open burn/open detonation of explosive waste at Site 300 are regulated by the SJVAPCD. The SJVAPCD is responsible for enforcing air quality standards within its jurisdiction established by CARB and EPA. The Burn Cage and Burn Pan operate under permits issued by the SJVAPCD for stationary sources. These permits have established limits and conditions designed to control emissions of hazardous air pollutants. As indicated by the SJVAPCD, issuance of the permits ensures that stationary source emissions are below significance thresholds.

As shown in Table 3-1, the San Joaquin Valley Air Basin is a non-attainment area for ozone and PM_{2.5} under both the federal and state Clean Air Acts and is non-attainment for PM₁₀ under the state Clean Air Act. The air basin is either attainment or unclassified for other ambient standards. Existing project activities, including treatment via controlled open burn/open detonation of explosive waste, are conducted in accordance with existing SJVAPCD rules and attainment plans under a permit issued by SJVAPCD. Based on consideration of current information, the existing project does not conflict with or obstruct implementation of the applicable air quality plan or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Furthermore, because the treatment capacity at the EWTF is significantly reduced from the prior permit, there is no increase in air emissions above that of the originally approved project, and therefore there is no conflict with any applicable air quality plan or net increase of any non-attainment criteria pollutant due to the changes in this project. *Melom v. City of Madera* (2010) 183 Cal.App.4th 41; *Temecula Band of Luiseño Mission Indians v. Rancho California Water Dist.* (1996) 43 Cal. App. 4th 425.

The project activities, including treatment via controlled open burn/open detonation of explosive waste, are conducted in accordance with existing SJVAPCD rules and federal and state air quality standards under permits issued by the SJVAPCD. Each year, SJVAPCD officials inspect operations at Site 300. Annual compliance inspections entail a review of permitted and exempt equipment, including documentation to demonstrate adherence to prohibitions; operating, record keeping, and notifications requirements; and emissions limitations. New equipment is also inspected prior to issuance of a new permit to operate, to ensure that equipment specifications comply with conditions specified in the authority to construct permit. In the last 5 years there have been no enforcement actions or deficiencies noted. Since 1987, the LLNL site 300 facility has had only 3 class 2 violations and 6 minor violations, which according to the California Health and Safety Code do not pose a significant threat to human health and the environment. Based on consideration of current information, the existing project does not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Furthermore, because the treatment capacity at the EWTF is significantly reduced from the prior permit, there is no increase in air emissions above that of the originally approved project, and therefore, there is no violation of any air quality standard due to the changes in this project. *Melom v. City of Madera* (2010) 183 Cal.App.4th 41; *Temecula Band of Luiseño Mission Indians v. Rancho California Water Dist.* (1996) 43 Cal. App. 4th 425.

Although the Facility is not authorized to manage radioactive or mixed waste in the permitted areas, it does manage it as a generator. The maximally exposed individual (MEI) is a hypothetical member of the public at a fixed location who, over an entire year, receives the maximum effective dose equivalent (summed over all pathways) from a given source of radionuclide releases to air. The site-wide MEI is located where the composite dose from all site sources is greatest. The Site 300 site-wide MEI has been located on the south-central boundary of the site bordering the Carnegie State Vehicular Recreation Area, approximately 3.2 kilometers south-southeast of the firing table at Building 851 (LLNL 2002bb), since the year 2000. Prior to 2000, the Site 300 site-wide MEI was located in an area operated by Primex Physics International (presently by Fireworks America), 300 meters outside the east-central boundary of Site 300 (2.4 kilometers east-southeast of the present Building 801 Contained Firing Facility).

The EWTF project activities involve treatment of explosive waste by controlled open burn/open detonation. As discussed in the 1997 Initial Study/Negative Declaration, this will generate airborne combustion products; however, the composition of the combustion products is dependent upon various explosives formulation and could include such compounds as carbon monoxide, oxides of nitrogen, dioxins, and furans. Particulates consist primarily of metal oxides, and carbon and nitrogen compounds. In addition to the studies supporting the 1997 Initial Study/Negative Declaration, the effects of these combustion products have been studied more recently in a human health and ecological risk assessment for the EWTF (October 2007), which states ". . . emissions from the EWTF should not be of concern for human health," and that no additional impact will occur from the continuing operation of the EWTF. There is no net increase in emissions as compared to historical operations; conversely treatment operations will be reduced under the proposed project changes. Accordingly, changes to the project will not expose sensitive receptors to substantial pollutant concentrations.

As indicated in the 1996 and 1997 initial studies, site operations would not result in a significant effect to air quality or the creation of any objectionable odors. The nearest substantial number of people is the city of Tracy which is approximately 2 miles northeast of Site 300 border. Although smoke is generated from open burn/open detonation activities, the smoke is expected to dissipate prior to reaching the Site 300 border. Based on consideration of current information, including the limited amount of material burned, the one hour per day time limitation for treatment, and the distance to the city of Tracy, no changes to the previous less than significant impact finding are indicated.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

LLNL letter dated May 4, 2005, "Annual Emission Inventory for CY2004," to San Joaquin Valley Air Pollution Control District.

SJVAPCD attainment status reviewed on 10/2/2007 via web site: <http://www.valleyair.org/aqinfo/attainment.html>

SWEIS, pp. 5.3-26-5.3-32.

SWEIS, Supplement, pp. S-2, 5-3-5-4.

US DOE, 2007, Human Health and Ecological Risk Assessment for the Operation of the Explosive Waste Treatment Facility at Site 300 of the Lawrence Livermore National Laboratory, UCRL-TR-216940, Volume 1: Report of Results, page vii.

California Department of Conservation, Division of Mines and Geology, A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, August 2000.

San Joaquin Valley Air Pollution Control District, Guidance for Assessing and Mitigating Air Quality Impacts, March 19, 2015. Available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

Final Environmental Impact Statement and Environmental Impact Report for Continued Operation of Lawrence Livermore National Laboratory and Sandia National Laboratories (1992 EIS/EIR) Section 5.1.8 and Volumes I-V.

San Joaquin Valley Air Pollution Control District, Guidance for Assessing and Mitigating Air Quality Impacts, March 19, 2015. Available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
4. BIOLOGICAL RESOURCES. Would the project:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 13-15.</p> <p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 6-8, 20.</p> <p><u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997 pp. 24-30.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local	Refer to references in 4a.	No	No	No	No prior mitigation measures were required and

or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?					no mitigation is required
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Refer to references in 4a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Refer to references in 4a.	No	No	No	No prior mitigation measures were required and no mitigation is required
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Refer to references in 4a.	No	No	No	No prior mitigation measures were required and no mitigation is required
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Refer to references in 4a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed Project's effects on biological resources and concluded that Site 300

operations would not significantly impact biological resources. The entire LLNL Site 300 covers approximately 7,000 acres of land in eastern Alameda County and western San Joaquin County. The northern portion is characterized by rolling hills while the southern part consists of steep, deep canyons. The Site was acquired in 1953, and since then, no grazing or farming has taken place on the property. A relatively small part (approximately 5 percent) has been developed for LLNL activities; the remainder is largely undisturbed, with the exception of prescribed burning practices that occur annually. Approximately 2,000 acres of land during late May to mid-June are burned to control the potential for wildland fires to enter or exit the property.

The 2005 Final Site-wide Environmental Impact Statement for Continued Operation of LLNL (Waste Appendix) states the following, "*Activities would not entail any changes to the physical environment. No indirect impacts would occur because no runoff materials would impact sensitive habitats. Runoff is collected, analyzed and disposed of appropriately.*" The 2007 human health and ecological risk assessment for EWTF states in part ". . . emissions from the EWTF should not be of concern for human health and may also be of *de minimis* concern with regard to ecological impacts."

As concluded in the 1996 and 1997 Initial Studies/Negative Declarations, no known substantial adverse effects to biological resources are anticipated as a result of the ongoing project activities which are comprised of the continued operation of the EWSF, EWTF, and B883 CSA waste management facilities operations. As previously stated, these project activities occur in existing facilities; therefore, no habitat modification (ground disturbance) would occur as a result of changes to the Project. There would be no substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, and there would be no conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Furthermore, a report was prepared by the US DOE in September of 2012 (Environmental Functional Area Environment Support and Programmatic Outreach Soil Sample Report in Support of the Site 300 Explosive Waste Treatment Facility Permit Renewal) to assess the data collected from soil samples at the Site 300 EWTF areas. This report concluded that no organic chemicals of ecological concern are present and that concentrations of inorganic elements are at or below "background" concentrations; consequently, the Site 300 facility exits the risk assessment process, and operations from Site 300 activities do not pose a risk to ecological resources.

The physical environment surrounding the Site 300 CSA, EWSF, and EWTF and associated structures remain essentially the same as that previously described in the prior environmental 1996 and 1997 Initial Study analyses. No substantial adverse effects to biological resources at the EWSF, CSA, and EWTF project areas are anticipated as a result of the ongoing project activities. Ongoing project activities occur within existing facilities; therefore, no habitat modification (ground disturbance) would occur under the project.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS, sections 3.6, 4.9, 5.3.7, Appendix E.

SWEIS Supplement, section 5.2.

US DOE, 2013, Summary of Ecological Risk Assessment for the Operation of the Explosives Waste Treatment Facility at Site 300 of the LLNL, pp. 1, 9-10.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Requiring Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
5. CULTURAL RESOURCES. Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<p><u>Operation of CSA and EWSF</u> DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 15.</p> <p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 19</p> <p>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 57-58.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Refer to references in 5a.	No	No	No	No prior mitigation measures were required and no mitigation is required
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Refer to references in 5a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. Disturb any human remains, including those interred outside the formal cemeteries?	Refer to references in 5a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project's effects on cultural resources and concluded that the continuation of Site 300 operations would not affect cultural resources. A cultural resource survey conducted at Site 300 for cultural resources in 1981 identified 24 archaeological sites. Of these 24 sites, 3 were prehistoric, 20 were historic, and 1 was a multicomponent site consisting of both prehistoric and historic materials. A 14-acre portion of the eastern protrusion of the property was surveyed in 1990. In addition, recent archival research and field surveys have been performed as a result of the 1992 EIS/EIR. The EWTF and associated access areas were surveyed for cultural resources in March 1997. No cultural resources that would warrant special consideration were discovered within a quarter mile of the project area. The nearest cultural resource is a native prehistoric cave dwelling which is located more than one-quarter mile away from the EWTF.

Archaeological surveys undertaken at Site 300 over the past 30 years have resulted in the recordation of 31 archaeological sites and isolated artifacts (UC LLNL 2005). The prehistoric archaeological sites indicate the area was used by early populations for hunting and for collecting and processing seasonal plant foods. This use is evidenced by small lithic scatters and rock shelters that contain bedrock mortars and possible small midden deposits. The historic archaeological sites provide evidence that homesteading, ranching, and mining were the predominant activities in the area during the historic period. The historic sites include an early 20th century homestead site; a sheepherder's cabin; remnants of water and sewer lines; possible remnants of a small wood bridge; small trash dumps; a historic power/telegraph line; and a mine adit and associated features. Site 300 also contains remnants of the residential section of Carnegie. Carnegie was the location of a brick and pottery plant and town from about 1895 to 1912.

Of the 31 archaeological resources recorded at Site 300, the US DOE, National Nuclear Security Administration (DOE NNSA), as the federal agency responsible for historic properties at LLNL, concluded that 5 qualify for listing in the National Register of Historic Places because of their ability to yield information important in prehistory or history and their association with events that have made a significant contribution to the broad patterns of history. The California State Historic Preservation Officer (SHPO) concurred with this determination (Donaldson 2005a). One of these historic properties is situated 1/3 mile from the EWTF. Due to the presence of an intervening ridge, this resource is not visible from the facility.

The project activities which comprise continued operation of EWSF, EWTF, and B883 CSA waste management facilities were included in an assessment of LLNL's buildings, structures, and objects for potential historic significance that was undertaken in 2004 (Sullivan and Ullrich 2004). Based upon the assessment, the NNSA determined that the waste storage and treatment units do not qualify for listing in the National Register of Historic Places within a local, State, regional or national context. The SHPO concurred with this determination (Donaldson 2005b). No paleontological resources are known to occur in the vicinity of the waste storage and treatment units.

The physical environment surrounding the Site 300 CSA and EWTF and associated structures remains essentially the same as that previously described in the prior environmental 1996 and 1997 Initial Study analyses. No construction is included with the permitted activities, and no adverse effects would result from continued permit activities.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

Donald, Milford Wayne, 2005a. Letter from the California State Historic Preservation Officer to Karin King, Department of Energy, National Nuclear Security Administration, regarding Inventory and Evaluation of Archaeological Resources at Lawrence Livermore National Laboratory, Site 300, Alameda and San Joaquin Counties, California, April 26.

Donaldson, Milford Wayne, 2005b. Letter from the California State Historic Preservation Officer to Karin King, National Nuclear Security Administration, regarding Historic Context and Building Assessments for the Lawrence Livermore National Laboratory Built Environment – Livermore, Alameda County, California. April 5.

Sullivan, Michael Anne and Rebecca Ann Ullrich, 2004. Draft Historic Context and Building Assessments for the Lawrence Livermore National Laboratory Built Environment, September.

University of California, Lawrence Livermore National Laboratory (UC LLNL), 2005. Inventory and Evaluation of Archaeological Resources at Lawrence Livermore National Laboratory, Site 300, Alameda and San Joaquin Counties, California. Prepared for Department of Energy, National Nuclear Security Administration, Livermore, California. February. Historic Context and Building Assessments for the Lawrence Livermore National Laboratory Built Environment, Ullrich 2007.

SWEIS, sections 3.6, 4.9, 5.1.4, 5.3.7, Appendix E.

SWEIS Supplement, section 5.2.

US DOE, 2013, Summary of Ecological Risk Assessment for the Operation of the Explosives Waste Treatment Facility at Site 300 of the LLNL, pp. 1, 9-10.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
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6. GEOLOGY AND SOILS. Would the project:

<p>a. pose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</p> <p>ii. Strong seismic ground shaking?</p> <p>iii. Seismic-related ground failure, including liquefaction?</p> <p>iv. Landslides?</p>	<p><u>Operation of CSA and EWSF DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 10-11.</u></p> <p><u>Operation of CSA and EWSF – DTSC Initial Study Checklist, 1996, pp. 1-3.</u></p> <p>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 13-18.</p> <p>Lawrence Livermore National Laboratory, Site 300, UCRL-MI-213344, Part II</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
<p>b. Result in substantial soil erosion or the loss of topsoil?</p>	<p>Refer to the references in 6a.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Refer to the references in 6a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Refer to the references in 6a.	No	No	No	No prior mitigation measures were required and no mitigation is required
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Refer to the references in 6a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

As discussed in the adopted initial studies/negative declarations of 1996 and 1997, LLNL site 300 is located within the Southeastern Altamont Hills and is characterized by steep hills and canyons. The canyons and hills are overlain by Quaternary alluvium composed of predominantly terrace deposits, colluvium, and ravine fill. Bedrock within Site 300 consists primarily of volcanoclastic sedimentary rocks of the late mid-Miocene Neroly and Cierbo Formation. At various locations within Site 300, the bedrock formations are overlain by unconsolidated to semi-consolidated sediments of Pliocene age and unconsolidated terrace, colluvial, ravine-fill, and floodplain deposits of Pleistocene to Holocene age. The topographic surface of site 300 is characterized by steep hills and rugged canyons, although rolling hills and flat benches exist in the southern portion. Elevations at site 300 range from 500 feet to 1,722 feet above sea level.

As discussed in the 1996 and 1997 initial studies/negative declarations, the dominant structural features at Site 300 include: (1) the northwest trending Corral Hollow-Carnegie Fault system located along the southern site boundary; (2) the northwest trending Elk Ravine Fault system located in the northeastern part of the site; and (3) the east-west trending Patterson Anticline located near the middle of the site.

The Explosive Waste Treatment Facility (EWTF) Burn Units (Burn Pan and Burn Cage) and Detonation Pad are located in the central part of Site 300 in distinct canyons and separated by a distance of approximately 900 feet. The two canyons intersect to form one canyon approximately 450 feet below each unit site. The Detonation Pad is located in a canyon that slopes approximately 10 degrees to the northeast. Parallel ridges rise approximately 150 feet west and 100 feet east of the Detonation Pad site. The Burn Units lie in a canyon that slopes approximately 10 degrees to the

east. Ridges rise approximately 100 feet north and 100 feet south of the Burn Area site. The Open Burn site lies at approximately 1,045 feet above mean sea level and the Open Detonation site lies at approximately 1,075 feet above mean sea level.

The Explosive Waste Storage Facility (EWSF) surface material at the EWSF consists of a sequence of unsaturated, unconsolidated Quaternary terrace deposits, approximately 5 feet thick. These deposits, which are composed of clay, silt, sand, and gravel, unconformably overlay semi-consolidated, unsaturated silts, sands, and clay of the Tertiary non marine sequence (TPS). The TPS is about 40 feet thick in the vicinity of the EWSF and overlays the bedrock formations consisting of Plio-Miocene volcanoclastic rock, Cretaceous sedimentary rock, and the underlying Jurassic Cretaceous basement.

The Container Storage Area (CSA) is located in the southern part of Site 300 situated on a relatively flat, graded surface between two north-south trending ravines. Soils in the vicinity of the CSA consist of light brown to dark brownish-gray clay to silty clay, which is calcareous below 10 inches and grades to claystone or sandstone below 20 inches. The CSA is located on flat-lying Quaternary Terrace deposits that directly overlie bedrock of the late-Miocene Neroly Formation.

The 1996 and 1997 initial studies/negative declarations found that there will be no significant impact to geology and soils, and that any effect of seismic activity at Site 300 is likely to be confined to ground shaking with no surface displacement. The proposed changes to the project, listed in table 1 above, do not significantly impact nor involve substantially more severe impacts to the concluded findings of the 1996 and 1997 adopted negative declarations. The changes to the project will not cause a significant increase in a negative impact to human health and the environment since the all the units are designed and constructed in accordance to the required seismic requirements for that area. In addition, the unit with the increase in volume is designed to contain any spills that could take place due to an earthquake.

The proposed project does not have any new circumstances that could change the conclusions adopted in the Negative Declarations of 1996 and 1997 since the operations of Site 300 will continue to be carried out in accordance with the most recent regulatory and statutory requirements. This includes a robust contingency plan that addresses any release that could take place due to an earthquake, which is unlikely to happen due to the facility design and current operational practices.

Recently, USGS began using an Earthquake Forecast modeling system called the Third Uniform California Earthquake Rupture Forecast UCERF3. Although that system might consider a higher potential of earthquakes taking place in California as a whole due to direct connections between faults, the closest fault to Site 300, being the Corral Hollow-Carnegie fault zone, will not be directly triggered by the Northern San Andreas or Hayward Faults. In any event, while the UCERF3 had not been developed at the time of the 1996 and 1997 Initial Studies/Negative Declarations, the geological data that the model interprets did exist at the time the negative declarations were completed. Thus, the UCERF3 modeling system, and the conclusions that it reaches, and does not constitute "new information of substantial importance that was not previously available" within the meaning of CEQA Guideline section 15162(a)(3). See *A Local and Regional Monitor (ALARM) v. City of Los Angeles* (1993) 12 Cal.App.4th 1773, 1802. In other words, not only does UCERF3 not indicate any new adverse impacts of the project changes to geology and soils, but it is not the type of information that must be considered under CEQA Guideline section 15162(a)(3).

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

US DOE, 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Statement, DOE/EIS-0236-S3, section 4.8

US DOE, 2011, Supplement Analysis of the 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory, DOE/EIS-0348-SA-03, section 2.4.

US DOE, 2005, Part B Permit Application for Hazardous Waste Treatment and Storage Facilities Lawrence Livermore National Laboratory, Site 300, UCRL-MI-213344, Part II

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
7. GREENHOUSE GAS EMISSIONS. Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Greenhouse gas emissions were not evaluated in previous environmental documents because greenhouse gas analysis was not part of the CEQA Guidelines Appendix G Checklist. The documents listed in the references that follow the discussion section below were used to complete the analysis.	Not previously analyzed.	Not previously analyzed.	No	No prior mitigation measures were required and no mitigation is required

<p>b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?</p>	<p>Greenhouse gas emissions were not evaluated in previous environmental documents because greenhouse gas analysis was not part of the CEQA Guidelines Appendix G Checklist. The documents listed in the references that follow the discussion section below were used to complete the analysis.</p>	<p>N/A</p>	<p>N/A</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
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Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations predated the CEQA requirement to evaluate Greenhouse Gas (GHG) emissions and did not address this issue. Currently, however, the CEQA Guidelines require lead agencies considering new projects to consider potential adverse effects related to GHG emissions. However, since this is a not a new project, and because the issue of GHG emissions and their potential adverse effect on the environment was known when the Negative Declarations were completed, CEQA does not require an analysis of potential GHG impacts because climate change is not “new information that could not have been known” when a prior EIR or negative declaration was certified. See *Citizens for Responsible Equitable Env’tl Dev. V. City of San Diego* (2011) 196 Cal. App. 515, 530 (information about effect on climate change did not require preparation of subsequent EIR because such information had been available before original EIR had been certified in 1994). See also *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301. Although it is not required to, DTSC has voluntarily considered GHG emissions in this Environmental Document Analysis, and determined that current information and circumstances do not warrant a determination that changes to the project would have adverse effect on the environment. Conversely, changes to the project will reduce GHG emissions in comparison to the project previously approved.

The California Global Warming Solutions Act of 2006 or Assembly Bill 32 (AB 32) was passed in order to reduce greenhouse gas (GHG) emissions for the state. The San Joaquin Valley Air Pollution Control District (SJVAPCD) implemented AB 32 by issuing two reports in 2009, the “District Policy – Addressing GHG Impacts for Stationary Sources Under CEQA When Serving as the Lead Agency,” December 17, 2009 and the “Final Staff Report – Addressing Greenhouse Gas Emission Impacts Under the California Environmental Quality Act,” December 17, 2009.

The overall methodology SJVAPCD adopted to comply with AB 32 is described in Section 2 of the “District Policy” report, and the principle for determining significance is described in Section 3 of the report. SJVAPCD adopted a graded approach to comply with AB 32. All stationary source projects with increased GHG emissions are required to implement performance based standards (i.e. e., Best Performance Standards (BPS)) or otherwise demonstrate that the project GHG emissions have been mitigated or reduced by at least 29% compared to Business-as-Usual (BAU) emissions.

BPS is described as the most effective Achieved-in-Practice means of reducing or limiting GHG emissions from a GHG source. Stationary sources with increased GHG emissions that meet BPS would be determined to have a less than significant individual and cumulative impact on global climate change and would not require project-specific quantification of GHG emissions. The SJVAPCD "District Policy" report also states that District Staff will establish BPS for a specific class and category of stationary sources. Open Burn and Open Detonation (OB/OD) operations have not been evaluated by District Staff relative to BPS pursuant to telephone conversation with Mr. Kai Chan, Air Quality Engineer, SJVAPCD, March 16, 2016..

Stationary sources with increased GHG emissions that do not meet BPS or are not operating under an approved GHG emission reduction plan or mitigation program must proceed to the next level of GHG analysis: the quantification of GHG emissions. AB 32 established a reduction in GHG emissions by 29% in order to reduce GHG to 1990 levels by 2020. A stationary source with a reduction of 29% or greater would be determined to have a less than significant individual and cumulative impact on global climate change as specified in the "California Air Resources Board (CARB) AB 32 Scoping Plan." Therefore, stationary sources with a reduction of 29% or greater would have a "no impact" to "less than significant impact" under CEQA.

In order to evaluate GHG emissions from changes to the EWTF treatment units (Detonation Pad + Burn Cage + Burn Pan), carbon dioxide (CO₂) and methane (CH₄) emissions were calculated for the maximum current and proposed treatment capacities. A reduction in treatment capacity is proposed for the operations at the Burn Pan, from 15,000 pounds/year (lbs./yr.) to 10,000 lbs./yr. This reduction in treatment capacity would result in a total decrease of GHG (CO₂ + CH₄) emissions of 8,340 pounds of CO₂ equivalent emissions, or 33.3%. In addition, a reduction in treatment capacity is proposed for the operation at the Open Detonation unit, from 35,000 pounds/year (lbs./yr.) to 1,000 lbs./yr. This reduction in treatment capacity would result in a total decrease of GHG (CO₂ + CH₄) emissions of 52,713.6 pounds of CO₂ equivalent emissions, or 97.1%.

Because the proposed Hazardous Waste Facility Permit condition restricts Burn Cage and Burn Pan treatment operations to a maximum of 100 events per year each, the calculated maximum emissions from open burning operations of Form 4 (see Current Treatment table below) waste in the Burn Cage would be 32,968 lbs./yr. of CO₂ equivalent emissions. Adding this value to the above changes for the Detonation and Burn Cage units' maximum Detonation Pad CO₂ equivalent emissions will result in a total of 51,198.4 lbs./yr. of CO₂ equivalent emissions per year. The total reduction in GHG that will be experienced through changes to the project will be of 54.4%. Therefore, there will not be any increase in GHG emissions associated with this permit renewal.

The approximate number of shipments on-site from generator areas to the EWSF, EWTF, or B883 CSA will be maintained for this project from previous years and will be performed using two dedicated vehicles a Ford 4x4 (V8 gasoline engine) and a Chevy (V10 gasoline engine). The number of trips associated with the EWSF, EWTF, and B883 CSA will be of 156, 130, and 260 trips per year respectively. In addition to the trips from generator locations to the EWSF, EWTF, and B 883CSA, LLNL site 300 will transport hazardous to LLNL DWTF located at 7000 East Avenue in Livermore, California 6 times a year. LLNL site 300 will transport the remaining hazardous waste for further treatment or disposal to Clean Harbors in San Jose, Safety Kean in Colfax, Evoqua Water Technologies in Minnesota, Clean Harbors in Utah and California, Energy Solutions in Utah, and Nevada National Security Site in Nevada for a maximum of 10 trips per year.

For the shipments taking place on-site, the total number of miles traveled for the 546 trips per year will total 2054 round trip vehicle miles. For the shipments sent off-site, including those sent to LLNL DWTF at 7000 East Avenue in Livermore, California will total 9168 round trip vehicle miles. By using a conservative Emission Factor of 8.887 and 10.180 kilograms per gallon (kg/gal) for diesel and gasoline respectively, the total amount of CO₂ generated for the transportation of hazardous waste is of 14.8 tons of CO₂ per year.

The following tables provide maximum calculated GHG emissions for the Detonation Pad, Burn Pan and Burn Cage for each explosive waste form type

and for current and proposed unit capacities.

Current Treatment										
Unit	Waste Form ¹	Treatment Limits		Carbon Dioxide (CO ₂)			Methane (CH ₄)			Total CO ₂ eq
				Total Weight/year	EF ³	Emissions	EF	Emissions	CO ₂ eq ⁴	
		lbs./event	events/year ²	lbs./yr.	lb./lb.	lbs./yr.	lb./lb.	lbs./yr.	lbs./yr.	lbs./yr.
Detonation Pad	1	350	100	35,000	1.5	52,500	2.40E-3	84	1,764	54,264
Burn Pan	2	150	100	15,000	1.5	22,500	8.00E-3	120	2,520	25,020
Burn Cage	3	50	100	5,000	1.1	5,500	8.00E-3	40	840	6,340
Burn Cage	4	260	100	26,000	1.1	28,600	8.00E-3	208	4,386	32,968

Proposed Treatment										
Unit	Waste Form ¹	Treatment Limits		Carbon Dioxide (CO ₂)			Methane (CH ₄)			Total CO ₂ eq
				Total Weight/year	EF ³	Emissions	EF	Emissions	CO ₂ eq ⁴	
		lbs./event	events/yr ²	lbs./yr.	lb./lb.	lbs./yr.	lb./lb.	lbs./yr.	lbs./yr.	lbs./yr.
Detonation Pad	1	100	10	1,000	1.5	1,500	2.40E-3	2.4	50.4	1,550.4
Burn Pan	2	100	100	10,000	1.5	15,000	8.00E-3	80	1,680	16,680
Burn Cage	3	50	100	5,000	1.1	5,500	8.00E-3	40	840	6,340
Burn Cage	4	260	100	26,000	1.1	28,600	8.00E-3	208	4,386	32,968

¹ Waste Form – Explosive Waste Forms are used to determine the appropriate waste management unit to be used for treatment. Form 1 waste examples are explosive assemblies or devices that must be treated on the Detonation Pad. Form 2 waste examples are explosive parts and pieces that are generated during formulation that are best treated on the Burn Pan. Form 3 wastes are typically wet machine fines that are best treated in the Burn Cage. Form 4 waste examples are paper, clean up wipes and filters that are best treated in the Burn Cage.

² Events/year – Total burn events maximum is 100 per year per unit.

³ EF – Emission Factor represented by unit lb. /lb., defined as weight of GHG (CO₂ or CH₄)/ weight of explosive.

⁴ eq – Equivalent. By convention, Carbon Dioxide is assigned a global warming potential (GWP) of 1. Methane has a GWP effect 21 times greater than Carbon Dioxide. Therefore, “eq” represents Methane emissions that are equivalent to Carbon Dioxide (by multiplying Methane times 21).

As mentioned above, the SJVAPCD “District Policy” report requires that all stationary sources with increased GHG emissions either implement BPS or demonstrate that project GHG emissions have been mitigated or reduced by 29% compared to BAU emissions to show less than significant GHG impacts. Therefore, because GHG emissions associated with changes to the project will not increase, the project’s incremental GHG emissions will not directly or indirectly result in a significant or cumulatively considerable impact on the environment. Likewise, GHG emissions associated with changes to the project will not conflict with any plan, policy or regulation adopted for the purpose of reducing GHG emissions.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

US DOE, 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Statement, DOE/EIS-0236-S3

US DOE, 2011, Supplement Analysis of the 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory, DOE/EIS-0348-SA-03

US DOE, 2005, Part B Permit Application for Hazardous Waste Treatment and Storage Facilities Lawrence Livermore National Laboratory, Site 300, UCRL-MI-213344, Part II

Calculations performed using CalEEMOD <http://www.caleemod.com/>

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
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8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<p>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 3-5.</p> <p>Operation of CSA and EWSF – DTSC Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 10-14, 18.</p> <p>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 35-38; 50-54.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Refer to the references in 8a.	No	No	No	No prior mitigation measures were required and no mitigation is required
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Refer to the references in 8a.	No	No	No	No prior mitigation measures were required and no mitigation is required

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		No	No	No	No prior mitigation measures were required and no mitigation is required
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	N/A	N/A	N/A	N/A	N/A
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working on the project area?	N/A	N/A	N/A	N/A	N/A
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Refer to the references in 8a.	No	No	No	No prior mitigation measures were required and no mitigation is required

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wild lands?	Refer to the references in 8a.	No	No	No	No prior mitigation measures were required and no mitigation is required
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Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations concluded that the Project would not have a significant adverse environmental impact relating to hazards, hazardous materials, and public health and safety. These conclusions took into account the risks of an explosion or release of hazardous substances in the event of an accident or upset conditions, possible interference with an emergency response plan, potential creation of health hazards or potential health hazards, implementation of procedures to minimize the possibility of hazardous and explosives waste releases, and the implementation of an emergency response plan if there was a release. As described below, no changes to these findings are necessary.

Hazardous and explosive wastes are currently stored and treated at the Site 300 waste management facilities: B883 CSA, the EWSF, and the EWTF. The B883 CSA is used primarily as a container storage area for hazardous, non-explosives wastes. The EWSF is primarily used to store solid explosive wastes. The EWTF is dedicated for the treatment of explosives waste.

Hazardous wastes that are stored in B883 are generated at Site 300 and include items such as: lab packs of expired chemicals and debris; waste solvents; acidic and caustic wastes; fluorescent light bulbs; spent batteries; waste oil; metals; spent filters; pesticide waste; and sludge. Although the B883 storage capacity was increased by 2,200 gallons of storage for non-explosive hazardous waste, this increase does not pose a significant threat to human health and the environment because B883 is designed with a secondary containment that can accommodate a total of 5,585 gallons. In addition, the building is designed with a roof, berms, and ramps that prevent any rain or run-on to be accumulated within the authorized area.

Explosive wastes stored at the EWSF will be decreased by 1,622 pounds of explosive hazardous waste total capacity at any one time when compared to the prior permit (see Table 1) and has been removed from authorization under the proposed permit. The treatment volume authorized for the EWTF also decreased by a total combined treatment volume of 300 pounds of explosive hazardous waste per event: 50 pounds decreased on the open burn pan unit and 250 pounds decreased on the open detonation unit.

NOTE: As stated in the draft permit, Part V, no radioactive wastes or wastes containing radioactive constituents, including low level radioactive wastes or constituents, are permitted for storage or treatment in any of the 3 hazardous waste management units covered by this project.

All project activities conducted at Site 300 are required to conform to the policies contained in the LLNL *Environment, Safety, and Health (ES&H) Manual* (LLNL, latest revision). These policies state that the design of any process, equipment, or apparatus shall include safety and environmental controls that may vary from engineered mechanisms to time of operation.

Hazardous and explosives wastes are properly packaged in accordance with DOT requirements for safe transportation. Trained technicians use designated trucks for the routine transport of hazardous and explosives wastes to the designated waste management facilities: the EWSF, the EWTF, and the B883 CSA. The EWTF Burn Pan and Burn Cage are designed to provide primary containment of ash generated during and after treatment. The open-burn units are located on a concrete pad surrounded by paved areas, and are designed and operated to prevent any accidental spills of waste or ash from directly reaching soil or groundwater. The Burn Pan is equipped with a remotely controlled movable cover to minimize the potential spread of ash by precipitation or wind. In light of the above, the conclusion that there is no foreseeable impact because the risk of an upset at the facility is remote is still valid.

In determining whether CEQA Guideline section 15162(a)(3) requires preparation of a subsequent EIR, DTSC reviewed a report entitled "Human Health and Ecological Risk Assessment for the Operation of the Explosive Waste Treatment Facility at Site 300 on the Lawrence Livermore National Laboratory (2007)." This report was prepared specifically for this project. (See Specific References below). This report was reviewed by DTSC scientific experts in toxicology and ecological risk assessments. These DTSC scientists concluded that the risk to both human health and the environment as a result of the operation of the EWTF units is not considered above acceptable levels as defined by the regulatory guidelines, which is consistent with the findings from the 1996 and 1997 Negative Declarations. For human health purposes, acceptable levels do not exceed one in one million human cancers and a hazard quotient of less than one. The Facility operations meet these criteria.

No existing or proposed schools are located within one-quarter mile of Site 300.

Existing soil and rock contamination is well characterized and being cleaned up in accordance with environmental regulations and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. Cleanup is managed by the following four government agencies: U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), Central Valley Regional Water Quality Control Board (RWQCB), and the U.S. Department of Energy (DOE). The contaminants most frequently found in soil and rock at Site 300 are TCE, perchloroethylene (PCE), high explosive compounds, nitrates, perchlorates, depleted uranium, metals, and tritium. In light of these cleanups, Site 300 is included on the Cortese list (Government Code Section 65962.5). However, the proposed permit does not propose any changes to these cleanups, and therefore, would not create a significant hazard to the public or the environment. No construction activities are proposed as part of this project; therefore, ongoing operations would not disturb existing contamination at Site 300.

The 1996 and 1997 Initial Studies/Negative Declarations found that the operation at the EWSF, the EWTF, and the B883 CSA and their associated waste management activities would not impair implementation of, or physically interfere with, LLNL's emergency response plan or emergency evacuation plan for Site 300. There is no new information of substantial importance, changes to the project, or changes in project circumstances that would change those findings.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

US DOE, 2005, Part B Permit Application for Hazardous Waste Treatment and Storage Facilities Lawrence Livermore National Laboratory Site 300, UCRL-MI-213344.

US DOE, 2007, Human Health and Ecological Risk Assessment for the Operation of the Explosive Waste Treatment Facility at Site 300 of the Lawrence Livermore National Laboratory, UCRL-TR-216940, Volume 1: Report of Results, page vii.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
9. HYDROLOGY AND WATER QUALITY. Would the Project:					
a. Violate any water quality standards or waste discharge requirements?	<p><u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 7-9.</u></p> <p><u>Operation of CSA and EWSF– DTSC Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 4-5.</u></p> <p><u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 21-23.</u></p>	No	No	No	

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and

drainage systems or provide substantial additional sources of polluted runoff?					no mitigation is required
f. Otherwise substantially degrade water quality?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required
j. Inundation by seiche, tsunami, or mudflow?	Refer to the references in 9a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

As discussed in the 1996 and 1997 Initial Studies/Negative Declarations, Site 300 is a large and hydrogeologically diverse site. Due to the steep

topography and structural complexity, the water-bearing geologic units at Site 300 are discontinuous and vary in depth by tens to hundreds of feet. Groundwater occurs in both bedrock and alluvial water-bearing zones and ranges in depth from 10 to 500 feet below the surface depending on location and topographic elevation. The main water supply for Site 300 draws water from an aquifer in the lower Neroly Formation. In the northern part of Site 300, ground water occurs in both alluvial and bedrock water-bearing zones under unconfined to confined conditions. The mean groundwater flow direction in the Neroly bedrock water-bearing zones in the northern part of the site is generally to the east to northeast and is controlled primarily by the topography and geologic structure, including the northwest-trending Elk Ravine fault. Groundwater also occurs in isolated, perched water-bearing zones, and alluvial water-bearing zones that occupy the canyon bottoms in Elk Ravine and nearby ravines. The groundwater in these alluvial water-bearing zones is ephemeral and highly reactive to heavy rainfall events. During extended drought periods, these alluvial water-bearing zones become de-saturated. Alluvial groundwater flows in the down valley direction toward lower elevations.

As discussed in the 1997 Initial Study/Negative Declaration, the EWTF is located in the central part of Site 300. Groundwater beneath the EWTF occurs in a low yield portion of the lower Neroly Formation at a depth of about 90 feet. The mean flow direction is thought to be to the north-northeast.

The Building 883 CSA is located on an uplifted terrace near the southeastern boundary of Site 300. As discussed in the 1996 Initial Study/Negative Declaration, groundwater beneath Building 883 occurs at a depth of about 40 feet. Groundwater generally lies in an unconfined aquifer which consists of siltstones and silty sandstones of the Neroly Formation.

The EWSF is located along a ridge top in the northwestern part of the High Explosives Process Area that is located in the southeastern part of Site 300. As discussed in the 1996 Initial Study/Negative Declaration, groundwater beneath the EWSF occurs in isolated perched water-bearing zones at a depth of about 80 feet and in the regional lower Neroly water-bearing zone at a depth of about 300 feet.

As discussed in the 1996 and 1997 Initial Studies/Negative Declarations, there is very little perennial surface water at Site 300. Surface water at the site consists of intermittent runoff, springs, and natural and man-made ponds. Surface water sometimes occurs locally as a result of discharge from cooling towers. No lakes, reservoirs, or rivers lie within 1 mile of the hazardous waste management facilities. However, several seasonal streams lie within 1 mile of the units, with the closest one lying approximately 300 feet to the south of B883 CSA. Springs are also found within 1 mile of the EWTF and B883 CSA. A spring lies approximately 2000 feet southwest of the Open Detonation unit, and the nearest of the six springs within 1 mile of B883 CSA is about 1300 feet west of the unit. There are approximately 20 springs at Site 300. Most of the springs have very low flow rates and are recognizable only by the presence of small marshy areas, pools of water, or vegetation. Water flows in these drainages only after heavy storms. The occasional runoff from these drainages that does not infiltrate the ground eventually flows into Corral Hollow Creek.

The 1996 and 1997 Initial Studies/Negative Declarations concluded that operations of the EWSF, the EWTF, and the B883 CSA waste management facilities would not have any significant adverse impact to surface water or groundwater. The design and operation of the waste management units comply with the Site 300 Storm Water Pollution Prevention Plan. Design features that protect storm water quality include ditches that route storm water away from the waste treatment facilities and impermeable barriers to facilitate spill response and clean-up. The Burn Pan and Burn Cage are designed to provide primary containment of ash generated during and after treatment. The open burn units are located on paved areas on an impermeable foundation that prevents any accidental spills of waste or ash from directly reaching surface or ground water. The Burn Pan is equipped with a remotely controlled movable cover to minimize potential spread of ash by precipitation or wind. Furthermore, ashes are collected following treatment and stored in containers to prevent wind dispersal. In addition, the following operational procedures protect storm water quality: covering the open detonation pad when not in use; not operating the treatment facilities if there is a chance of rain; covering the open burn pan after treatment to prevent ash from escaping; and removal of ash after treatment. Stormwater discharges at Site 300 are managed under the State Water Board's NPDES General Permit for Stormwater Discharges Associated with Industrial Activities, Order NPDES No. CAS000001. There are also two WDRs

administered by the Central Valley Regional Board for Site 300: Low threat discharges are managed under "Order R5-2013-074, NPDES No. CAG995001, Waste Discharge Requirements for Dewatering and Other Low Threat Discharges to Surface Waters" and the septic systems fall under WDR Order No. R5-2008-0148.

As found in the 1996 and 1997 Initial Studies, Site 300 operations, project would not affect groundwater supply or recharge. Groundwater supply would not be impacted because groundwater use is not expected to increase. Groundwater recharge would not be affected because no paving would occur. The changes to the project, summarized in Table 1, would not affect any of those findings.

The changes to the project would not alter the existing drainage pattern of Site 300 because no construction or ground disturbance would occur. The project changes would not alter the course of any streams, nor would it increase the rate or amount of surface water runoff because no construction or ground disturbance would occur. The project changes would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The waste management facilities have run-on and run-off controls that prevent water from entering the facilities, or polluted water from leaving the facilities. Some facilities, such as storage magazines and buildings, are completely waterproof. Open-air facilities such as the B883 CSA have roofs and fences that minimize the amount of precipitation that can enter them. In addition, berms prevent storm water from entering the secondary containment system and prevent any accumulated liquids within the secondary containment system from exiting the building.

As found in the 1996 and 1997 Initial Studies/Negative Declarations, none of the waste management facilities (EWSF, EWTF, and B883 CSA) is located in a 100-year floodplain. No new structures are proposed with respect to changes to the project.

Site 300 is located in the mountains, over 45 miles from the coast and not adjacent to any lakes; therefore, seiche and tsunami are not possible. Landslides have occurred at Site 300, but the topography and shallow, rocky soil above the waste management facilities make mudflows unlikely.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

US DOE, 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Statement, DOE/EIS-0236-S3, section 4.8

US DOE, 2011, Supplement Analysis of the 2005 Final Site-wide Environmental Impact Statement for Continued Operations of Lawrence Livermore National Laboratory, DOE/EIS-0348-SA-03

US DOE, 2005, Part B Permit Application for Hazardous Waste Treatment and Storage Facilities Lawrence Livermore National Laboratory, Site 300, UCRL-MI-213344, Part II and Part IV

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
10. LAND USE AND PLANNING. Would the project:					
a. Physically divide an established community?	<p><u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 6.</u></p> <p><u>Operation of CSA and EWSF–DTSC Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 8-9.</u></p> <p><u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 31-32.</u></p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project	<u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 6.</u>	No	No	No	No prior mitigation measures were required

(including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<p><u>Operation of CSA and EWSF</u>– DTSC Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 8-9.</p> <p><u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 31-32.</p>				and no mitigation is required
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	Refer to the references in 10a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project’s effects on land use and concluded that Site 300 operations would not affect land use. Site 300 is owned by the US DOE. Local land use decisions are not applicable to Site 300. Site 300 is located in the Altamont Hills, mostly in San Joaquin County with a small portion in Alameda County. Site 300 is approximately 17 miles east of Livermore and 8.5 miles southwest of Tracy. Site 300 is a restricted-access US DOE experimental test facility used in the research, development, and testing of weapon components, as well as continued operation of EWSF, EWTF, and B883 CSA waste management facilities. The US DOE plans to use Site 300 in this capacity for the foreseeable future.

The San Joaquin County designation for Site 300 is “Public and Quasi-Public-Other Governmental and Institutional”. This designation allows the use of Site 300 for military installations and other major government buildings.

As described in the 1996 and 1997 Initial Studies/Negative Declarations, land use surrounding Site 300 includes private ranch land used primarily for cattle grazing, state-owned land used for recreational motorcycle riding, a state ecological reserve, a fireworks storage facility, and privately-owned land planned for future residential development. The City of Tracy Community Areas Map designates the Site 300 area as Federal Reserve/Open Space. Site 300 borders the City of Tracy’s sphere of influence, which is designated as the Tracy Hills area. The Tracy General Plan provides for a conservation or open space area to be established that would be a buffer zone between Site 300 and any potential development. Areas north and east of Site 300 are designated general agricultural. Areas south of Site 300 along Corral Hollow Road are designated as recreation and conservation areas. Areas to the north and west are designated as general agriculture. The property east of and adjacent to Site 300 is owned by Fireworks American, and a portion of the property is leased to Reynolds Initiator Systems, Inc. A facility operated by SRI International that conducts explosives testing is approximately 0.6 miles south of Site 300.

As determined by the 1996 and 1997 Initial Studies/Negative Declaration, operation of the EWSF, the EWTF, and the B883 CSA waste management facilities would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. The operations at Site 300 would not conflict with any applicable habitat conservation plan or natural community conservation plan. Continuation of the permit would not affect land use for the Site 300 area, and land use remains essentially the same as that previously described in the prior 1996 and 1997 Initial Studies/Negative Declarations.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS, sections 3.6, 4.2.1.2, 4.2.2.2.

SWEIS Supplement, section 5.1.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
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11. MINERAL RESOURCES. Would the Project:

<p>a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</p>	<p><u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp.10.</u></p> <p><u>Operation of CSA and EWSF– DTSC Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 9.</u></p> <p><u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 33-34.</u></p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</p>	<p>Refer to the references in 11a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project’s effects on mineral resources and concluded that the continuation of Site 300 operations would not affect mineral resources. Geologic resources found near Site 300 include aggregate deposits and mineral deposits. Mineral Resource Zones have been established that identify sand, gravel, and stone source areas. Three types of mineral resources: clay, coal, and silica have been mined or have the potential to be mined in the vicinity of Site 300. No commercially exploitable mineral deposits are known to exist within the boundaries of Site 300. No foreseeable impacts to mineral resources would be incurred through continued operation of Site 300. Site operations will not involve the extraction of mineral resources. The facility operations and Site 300 conditions remain essentially the same as that previously described in the 1997 Special Initial Study analysis.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS sections 3.6, 5.3.6.2

SWEIS Supplement section 2.4.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
12. NOISE. Would the project result in:					
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist LLNL – Site 300 CSA and EWSF 1996, pp. 17.</p> <p><u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 44-49.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Exposure of persons to or generation of excessive ground borne vibration or	Refer to the references in 12a.	No	No	No	No prior mitigation measures were

ground borne noise levels?					required and no mitigation is required
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Refer to the references in 12a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Refer to the references in 12a.	No	No	No	No prior mitigation measures were required and no mitigation is required
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Not applicable.	No	No	No	No prior mitigation measures were required and no mitigation is required
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Not applicable.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project's noise impacts and concluded that the project would have less than significant impacts. The primary mission of Site 300 is to develop and field test nonnuclear, high explosive compounds. Treatment of explosives waste at the EWTF would be similar to the testing of explosives compounds. Therefore, the noise generated from treatment of explosives wastes would be similar to noise generated from testing of explosives compounds.

LLNL has voluntarily set a maximum predicted peak sound pressure level of 126 dB, not to be exceeded in populated areas. This level is below the safe limit for pain in humans or damage to structures. The highest (peak) noise level recorded in the city of Tracy during explosives testing

between 1988 and 1996 was 126 decibels. From 1993 to 1996, approximately 50-100 explosives test per year were performed. The number of explosives tests performed in any given week varied depending on meteorological conditions.

In the 1996 and 1997 Initial Studies/Negative Declarations, there were three sources of noise identified which may cause potential impacts. These were (1) the noise associated with construction activities, (2) noise associated with the operations of the EWTF (detonation of explosives wastes), and (3) noise that may be generated during an accident at the EWSF. There is no construction proposed as part of the current proposed project. Noise associated with the operations of the EWTF such as detonation of explosives wastes are impulse or impact noise. Impulse or impact noise is sudden and typically lasts less than a second. Noise associated with an accident at the EWSF would last only a fraction of a second. All the noise impacts associated with operation of Site 300 were considered to be less than significant.

In order to minimize the potential for adverse noise impacts, LLNL follows an established atmospheric modeling procedure for estimating limits on the amount of explosive waste to be treated such that adjacent offsite areas (at the Site 300 boundary) should not experience noise levels in excess of 126 dB. These procedures are same as those currently used prior to explosives testing and could limit the amount of explosives waste detonated in a single treatment operation to less than 350 lb. Noise levels in Tracy and Tracy Hills are not expected to be noticeably higher than current levels with the permit renewal.

San Joaquin County has adopted a noise ordinance (Section 9-1025.9 of the San Joaquin County Code - Development Title [San Joaquin County Code 2002]), which stipulates maximum allowable exposure levels associated with proposed activities that will create new stationary noise sources or expand existing noise sources. Waste management activities (EWSF, EWTF, and B883 CSA) are existing sources, not new sources; therefore, this ordinance does not apply.

OSHA (Occupational Safety and Health Administration) noise standards (29 CFR 1910.95) and California Code of Regulations (Title 8, Section 5096) noise standards apply to Site 300 employees that are exposed to noise. The project activities that include continued operation of the EWSF, the EWTF, and the B883 CSA waste management facilities are required to conform to the above standards, as well as the policies contained in the LLNL *Environment, Safety, and Health (ES&H) Manual* (LLNL, latest revision) and includes noise protection provisions among other worker safety and health requirements. These policies state that the design of any process, equipment, or apparatus should include safety and environmental controls. The LLNL Hazards Control Department performs noise surveys to ensure that operations are in compliance with applicable standards and EWTF would not be allowed to operate if it were in violation of any standard, including those related to noise.

The continued operation of the EWSF, the EWTF, and the B883 CSA waste management facilities would not expose people to or generate noise levels in excess of standards or ordinances.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS, section Summary, page S-41.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
13. POPULATION AND HOUSING. Would the Project:					
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, p. 15.</p> <p><u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 64-65.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Refer to the references in 13a.	No	No	No	No prior mitigation measures were required and no mitigation is required
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Refer to the references in 13a.	No	No	No	No prior mitigation measures were required and no mitigation is required

					required
<p>Discussion:</p> <p>The 1996 and 1997 Initial Studies/Negative Declarations evaluated potential effects on population and housing and concluded that the Site 300 operations would not affect population and housing. The project comprises operation of the EWSF, EWTF, and B883 CSA waste management facilities. The continuation of these activities will not require new housing, jobs, infrastructure development, or induce population growth in the area, directly or indirectly. Additionally, the project will not displace existing population or housing.</p> <p>Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.</p> <p>References:</p> <p>SWEIS, section 3.6.</p> <p>US DOE, 2005, Part B Permit Application for Hazardous Waste Treatment and Storage Facilities, Lawrence Livermore National Laboratory, Site 300, UCRL-MI-213344.</p>					

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
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14. PUBLIC SERVICES. Would the project:					
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered	<u>Operation of CSA and EWSF - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp.15-16.</u> <u>Operation of EWTF - DTSC,</u>	No	No	No	No prior mitigation measures were required and no mitigation is required

governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 41-42.				
• Fire protection?	Refer to the references in 14a.	No	No	No	No prior mitigation measures were required and no mitigation is required
• Police protection?	Refer to the references in 14a.	No	No	No	No prior mitigation measures were required and no mitigation is required
• Schools?	Refer to the references in 14a.	No	No	No	No prior mitigation measures were required and no mitigation is required
• Parks?	Refer to the references in 14a.	No	No	No	No prior mitigation measures were required and no mitigation is required
• Other public facilities?	Refer to the references in 14a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations evaluated potential effects on public services and concluded that because LLNL operates its own fire department, ambulance service, maintenance service, and security service for Site 300, that Site 300 operations have no impact on public or governmental services.

LLNL also has its own maintenance department to maintain any landscaping, roads or open space on site. The initial studies/negative declarations also acknowledged that but if an emergency occurred which cannot be handled by the LLNL fire department, LLNL has an Automatic Mutual Aid Agreement with the city of Livermore Fire Department which provides automatic response on a first alarm basis. In 2007, the LLNL fire department and fire protection services were transitioned into the Alameda County Fire Department. All uniformed employees of the former department were hired by the county fire department and remained in their former roles. Also, LLNL provides its own police protection.

The continued operation of EWSF, EWTF, and B883 CSA waste management facilities will not result in a need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire and police protection. The project will not cause the population to increase in the region; therefore, it will not increase the need for more schools, parks, or other public facilities.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS, section Summary, page S-35.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
15. RECREATION. Would the project:					
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<u>Operation of CSA and EWSF</u> - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 8, 15. <u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 31-32.	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Refer to the references in 15a.	No	No	No	No prior mitigation measures were required and no mitigation is required
<p>Discussion: The 1996 and 1997 Initial Studies/Negative Declarations evaluated the proposed project's effects on recreational activities and concluded that the continuation of Site 300 operations would not affect recreational uses for the project area. There are no recreational facilities that would be affected by continuing the facility operations.</p>					

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
16. TRANSPORTATION/TRAFFIC. Would the project:					
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<p><u>Operation of CSA and EWSF</u> - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. 15-16.</p> <p><u>Operation of EWTF</u> - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 39-40.</p>	No	No	No	No prior mitigation measures were required and no mitigation is required
b. Conflict with an applicable congestion management program, including, but not	Refer to 16a.	No	No	No	No prior mitigation measures

limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?					were required and no mitigation is required
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Refer to 16a.	No	No	No	No prior mitigation measures were required and no mitigation is required
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Refer to 16a.	No	No	No	No prior mitigation measures were required and no mitigation is required
e. Result in inadequate emergency access?	Refer to 16a.	No	No	No	No prior mitigation measures were required and no mitigation is required
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Refer to 16a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations found that hazardous waste activities at Site 300 would not have a significant adverse impact on traffic on transportation and circulation. The finding was based on consideration of vehicular movement, parking, existing transportation systems, patterns of circulation or movement of people and/or goods, and waterborne, rail or air traffic.

The continued operation of the EWSF, the EWTF, and the B883 CSA waste management facilities will not increase the number of workforce vehicle trips to and from the site. The number of employees who work at the waste management facilities is not expected to change. Therefore, the proposed permit renewal would not cause an increase in traffic in relation to the existing traffic load and capacity of the street system. The project does not involve modification to roads, emergency access, or parking capacity. The project does not conflict with adopted policies, plans, or programs supporting alternative transportation.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

SWEIS, section Summary, page S-42.

Environmental Resource	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]	Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]	Prior Environmental Documents Mitigations Implemented or Address Impacts
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17. UTILITIES AND SERVICE SYSTEMS. Would the project:

<p>a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</p>	<p><u>Operation of CSA and EWSE - DTSC, Initial Study/Negative Declaration, LLNL – Site 300 CSA and EWSF 1996, pp. -17.</u></p> <p><u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 43.</u></p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</p>	<p>Refer to 17a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</p>	<p>Refer to 17a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</p>	<p>Refer to 17a.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Refer to 17a.	No	No	No	No prior mitigation measures were required and no mitigation is required
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Refer to 17a.	No	No	No	No prior mitigation measures were required and no mitigation is required
g. Comply with federal, state, and local statutes and regulations related to solid waste?	Refer to 17a.	No	No	No	No prior mitigation measures were required and no mitigation is required

Discussion:

The 1996 and 1997 Initial Studies/Negative Declarations found that hazardous waste activities at Site 300 would not have a significant adverse impact on utilities. The findings were based on consideration any need for new systems, or substantial alterations to any utilities, including water, electrical, and communication utilities.

All activities associated with the continued operation of the EWSF, the EWTF, and the B883 CSA waste management facilities are subject to applicable federal and state regulations, permits obtained under these regulations, and DOE order

The Site 300 waste management facilities require use of the existing hook-ups for electricity, telephone service, and water. No additional hook-ups are required by the changes to the project. No impact on agencies providing utility services is anticipated. The project will not result in new utility systems or alter existing ones.

Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist for this resource. Therefore, the conclusions of the 1996 and 1997 Initial Studies/Negative Declarations remain valid.

References:

<p>Environmental Resource</p>	<p>Where Impact Was Analyzed in Prior Environmental Documents.</p>	<p>Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(1)]</p>	<p>Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(2)]</p>	<p>Any New Information Showing New or Substantially More Severe Impacts? [CEQA Guidelines Section 15162(a)(3)(A-D)]</p>	<p>Prior Environmental Documents Mitigations Implemented or Address Impacts</p>
<p>18. MANDATORY FINDINGS OF SIGNIFICANCE.</p>					
<p>a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>	<p><u>Operation of CSA and EWSF-DTSC</u>, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 20-21.</p> <p><u>Operation of EWTF - DTSC</u>, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 66-67.</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No prior mitigation measures were required and no mitigation is required</p>
<p>b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable”</p>	<p>Operation of CSA and EWSF - DTSC, Initial Study Checklist, LLNL – Site 300 CSA and EWSF 1996, pp. 20-21.</p>	<p>No</p>	<p>No</p>	<p>No</p>	

means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<u>Operation of EWTF - DTSC, Special Initial Study/Negative Declaration, LLNL – Site 300 New EWTF and Closure of B829 1997, pp. 59-63, 66.</u>				
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Refer to the references in 18a.	No	No	No	No prior mitigation measures were required and no mitigation is required
<p><u>Discussion:</u></p> <p>The project will not have adverse effects on historical or cultural resources or biological resources as previously discussed in sections 4 and 5 of this EDA. Similarly, as discussed in Section 8 of this EDA, the project will not have adverse effects on public health and safety.</p> <p>With respect to cumulative effects, the 1996 and 1997 Initial Studies/Negative Declarations found that the hazardous waste activities at Site 300 would not have any adverse environmental impacts that are individually limited, but cumulatively considerable. These findings were based on consideration of all of the environmental resources on the respective Initial Study checklists, including, but not limited to: air resources, groundwater and surface water resources, sensitive species or their habitats, prime agricultural lands, risk of upset, and the results of a health risk assessment.</p> <p>The conclusion was also based on consideration of any connections with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Specifically, DTSC considered two other defense-related research and testing facilities that were located near Site 300 and that conducted high explosive tests. DTSC also considered the Carnegie State Vehicular Recreation Area located south of Site 300, residents of the City of Tracy, and a project proposal for an urban center in Tracy Hills and the South Shulte project north of Tracy Hills.</p> <p>As discussed in this Environmental Document Analysis, the proposed changes to the LLNL Site 300 Hazardous Waste Facility Permit listed in Table 1 above (EWSF, EWTF, B883 CSA) will not result in any new individual significant environmental impacts, nor will these changes to the project or any new circumstances be considerable when viewed in connection with the projects considered in the 1996 and 1997 Initial Studies/Negative Declarations. Finally, there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Negative Declarations were adopted that would change DTSC’s finding of no cumulative impacts.</p> <p>Based on the above information, DTSC has determined that none of the conditions described in CEQA Guidelines Section 15162 requiring a subsequent environmental impact report exist regarding cumulative effects. The conclusions of the 1996 and 1997 Initial Studies/Negative Declarations regarding cumulative effects remain valid.</p>					

Materials referenced in this EDA are available for inspection at the following location:

Department of Toxic Substances Control
700 Heinz Ave, Suite 200
Berkeley, California 94710

References:

SWEIS, section 5.3.

SWEIS Supplement, Summary, sections 2.0, 3.0, 5.0.

SECTION D: DETERMINATION OF APPROPRIATE ENVIRONMENTAL DOCUMENT

On the basis of the information and analysis provided above, the following findings are made:

A Subsequent EIR is required to be prepared for the proposed project pursuant to CEQA Guidelines section 15162(a) and (b) based on the following determination(s):

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, showed the following:
 - The project will have one or more significant effects not discussed in the previous EIR or Negative

Declaration;

- Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.
- Changes to the project or its circumstances occurred or new information became available after adoption of the Negative Declaration, and a Subsequent EIR is required under CEQA Guidelines section 15162 (a).

A Supplement to an EIR is required to be prepared for the proposed project pursuant to CEQA Guidelines section 15163(a)(1) and (2) based on the following determination(s):

- One or more of the conditions described in Section 15162 required the preparation of a subsequent EIR, and
- Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

An Addendum to a previously certified Environmental Impact Report is required to be prepared for the proposed project pursuant to CEQA Guidelines section 15164(a) based on the following determination(s):

- Some changes or additions are necessary but none of the conditions described in CEQA Guidelines section 15162 calling for the preparation of a subsequent EIR have occurred.

An Addendum to an adopted Negative Declaration should be prepared for the proposed project pursuant to CEQA Guidelines section 15164(b) based on the following determination(s):

- Only minor technical changes or additions are necessary; or
- None of the conditions described in CEQA Guidelines section 15162 calling for the preparation of a subsequent EIR or Negative Declaration have occurred.

SECTION E: APPROVAL SIGNATURES

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3-17-16

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