# 6.16 WASTE MANAGEMENT

This section discusses waste management issues related to the VV2 Project, including identifying the hazardous and non-hazardous wastes generated by the construction and operation of the proposed VV2 Project and the potential impacts from those activities, as well as proposed mitigation measures for any potential significant impacts. Appendix M contains the Phase I Environmental Site Assessment (ESA) prepared for the VV2 Project site.

## 6.16.1 LORS Compliance

Table 6.16-1 and the following sub-sections summarize the waste management LORS applicable to the proposed VV2 Project.

**Table 6.16-1**
**LORS Applicable to Waste Management**

| LORS | Applicability | Where Discussed in AFC |
|---|---|---|
| **Federal:** | | |
| Resource Conservation Recovery Act (RCRA), Title 42 USC, Section 6901 *et seq*. | Provides the basic framework for Federal regulation of both non-hazardous and hazardous waste. | Section 6.16.5 |
| 1984 RCRA Amendments, 40 Code of Federal Regulations (CFR), Parts 260-279 | Establishes State responsibility for regulating non-hazardous wastes and controls the generation, transportation, storage and disposal of hazardous waste through a comprehensive "cradle to grave" system of hazardous waste management techniques and requirements. | Section 6.16.5 |
| U.S. Department of Transportation, 49 CFR Parts 172, 173 and 179 | Provides standards for labeling and packaging of hazardous waste shipments and for training of personnel completing shipping papers. | Section 6.16.5 |
| Clean Water Act of 1977 (including 1987 amendments) Section 402, 33 United States Code (USC) Section 1342, 40 CFR Parts 112, 122 – 136 | The Clean Water Act authorizes the U.S. Environmental Protection Agency (EPA) to regulate discharges of wastewater and storm water into surface waters by using National Pollutant Discharge Elimination System (NPDES) permits. Spill prevention control and countermeasure plans are required for facilities storing petroleum products at quantities above the regulatory threshold. | Sections 6.17.1 and 6.17.3 |

**Table 6.16-1**
**LORS Applicable to Waste Management**

| LORS | Applicability | Where Discussed in AFC |
|---|---|---|
| **State:** | | |
| California Integrated Waste Management Act, Public Resources Code, Section 40000 et seq. | Provides a solid waste management system to manage solid waste in an efficient and cost-effective manner to conserve natural resources, protect the environment, and improve landfill safety. | Section 6.16.5 |
| Title 22, California Code of Regulations (CCR), §66260.1 et seq. | Hazardous Waste Control Act 1972; hazardous waste generator requirements. | Section 6.16.5 |
| California Health & Safety Code 25100 et seq., 22 CCR §66001 et seq. | Management of hazardous waste; characterization, storage, transport and disposal of hazardous waste | Section 6.16.5 |
| **Local** | | |
| City of Victorville Municipal Code, Chapter 6.49 and City of Victorville Fire Regulations | Establish requirements for the use, generation, storage, and disposal of hazardous materials and wastes within the City. | Section 6.16-5 |

### 6.16.1.1 Federal LORS

Federal waste management LORS are summarized below.

The Resource Conservation and Recovery Act (RCRA), 42 USC, §§6901-6992k, provides the basic framework for Federal regulation of both non-hazardous and hazardous waste. Subtitle D of RCRA establishes State responsibility for regulating non-hazardous wastes, while Subtitle C controls the management of hazardous waste. Section 6922 requires hazardous waste generators to comply with requirements for: 1) recordkeeping practices that identify the quantities and disposition of generated hazardous wastes, 2) practices regarding labeling and use of appropriate storage containers, 3) use of a manifest system for hazardous waste transportation, and 4) periodic reporting to the EPA or the authorized State agency. RCRA allows EPA to delegate the administration of RCRA programs to the states, provided that the State programs meet Federal requirements; California has this delegated authority from EPA.

40 CFR Part 260. Part 260 contains regulations promulgated by EPA to implement RCRA requirements. These sections list specific types of hazardous wastes and describe hazardous waste characteristics in terms of ignitability, corrosivity, reactivity, and toxicity.

49 CFR Parts 171-177. Hazardous waste is considered a hazardous material; therefore, hazardous waste shipped offsite for recycling or disposal must be packaged, placarded and labeled in accordance with U.S. Department of Transportation requirements. Part 172 provides standards for labeling, placarding, and marking hazardous waste shipments by truck. Parts 173 and 179 provide standards for packaging hazardous waste. In addition, job-specific training is required for those personnel responsible for completing shipping papers (i.e., Uniform Hazardous Waste Manifests).

#### 6.16.1.2 State LORS

Applicable State of California LORS are summarized below.

California Hazardous Waste Control Act of 1972, California Health and Safety Code, Sec. 25100 *et seq.* California's hazardous waste regulatory program (authorized by EPA in 1992) is embodied in this law; it should be noted that California requirements are more stringent than the Federal waste management requirements. The law requires the Department of Toxic Substances Control (DTSC) to publish a list of hazardous and extremely hazardous wastes and to adopt criteria and guidelines for identifying hazardous wastes. It also creates a manifest system for transporting hazardous wastes and requires generators to file notifications with the California Environmental Protection Agency (Cal-EPA). Although primary authority for the statewide administration and enforcement of this law rests with DTSC, DTSC has delegated some oversight responsibilities for hazardous waste generators to the local Certified Unified Program Agency (CUPA), which is the City of Victorville Fire Department, Hazardous Materials Division.

Title 22, California Code of Regulations. Sections 66001 *et seq.* These sections establish requirements for hazardous waste generators. Potentially applicable requirements include:

- Determining whether wastes are hazardous based on their characteristics or inclusion as listed wastes (22 CCR , 66305, 66471)
- Obtaining a waste identification number (22 CCR 664722)
- Complying with hazardous waste storage standards (22 CCR 66508)
- Arranging proper transport, and disposal or treatment of hazardous wastes (22 CCR 66472, 66480) and complying with hazardous waste packaging and labeling

requirements that incorporate U.S. Department of Transportation requirements ((22 CCR 66504,

- Preparing hazardous waste shipping manifests and providing DTSC with biennial reports regarding hazardous waste shipments (22 CCR Section 66480-66484, 66493);

Public Resources Code, §40000 *et seq*., California Integrated Solid Waste Management Act. This law regulates non-hazardous solid waste and provides a solid waste management system to reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible in an efficient and cost-effective manner to conserve natural resources, to protect the environment, and to improve landfill safety. Local agencies are required to develop and establish recycling programs, reduce paper waste, purchase recycled products, and implement integrated waste management programs that conform to the State's requirements. The City of Victorville Sanitation Department has developed and implemented an integrated waste management program.

#### 6.16.1.3 Local LORS

Victorville Municipal Code, Chapter 6.49 and the City of Victorville Fire Regulations. This municipal code section and Victorville's fire regulations govern the use, generation, storage, and disposal of hazardous materials and wastes within the City. The designated CUPA is the City of Victorville Fire Department, Hazardous Materials Division. The City of Victorville Sanitation Department has developed a source reduction and recycling program for non-hazardous solid waste for residential and commercial/industrial properties within the city. The source reduction and recycling program provides for steps to reduce the generation of solid waste and slow the filling of local and regional landfills.

#### 6.16.1.4 Involved Agencies and Local Contacts

Agencies with jurisdiction to issue applicable permits or enforce LORS related to waste management are shown in Table 6.16-2.

#### 6.16.1.5 Required Permits and Permit Schedule

As a generator of hazardous waste, the VV2 Project will be required to obtain an EPA identification number from the DTSC. In addition, a Hazardous Materials Handler and Hazardous Waste Generator permit will be required from the City of Victorville Fire Department, Hazardous Materials Division. The City of Victorville Fire Department also requires permits for the installation and operation of underground storage tanks (USTs) and above ground storage tanks (ASTs). Table 6.16.3 identifies the waste management permits required for the VV2 Project.

**Table 6.16-2**
**Agencies and Agency Contacts**

| Agency | Contact | Permit/Issue |
|---|---|---|
| DTSC<br>1101 North Grandview Avenue<br>Glendale, CA 91201 | Andre Amy<br>Staff Duty Officer<br>(818) 551-2830 | Hazardous waste management |
| City of Victorville<br>Fire Department, Hazardous Materials Division (CUPA)<br>14343 Civic Drive<br>PO Box 5001<br>Victorville, CA. 92393 | Greg Coon,<br>Hazardous Materials Specialist<br>(760) 955-5227 | Hazardous waste management |
| City of Victorville<br>Sanitation Department<br>14343 Civic Drive<br>PO Box 5001<br>Victorville, CA. 92393 | Dana Armstrong, Manager<br>(760) 955-5087 | Non-hazardous waste management |

**Table 6.16-3**
**Permits Required and Permit Schedule**

| Permit/Approval | Schedule |
|---|---|
| EPA ID No. and register as a Hazardous Waste Generator with DTSC | Takes 7-10 businesses days once the application form has been received. |
| Hazardous Waste Generator Permit from City of Victorville Fire Department, Hazardous Materials Division | Takes less than one week for approval once needed information submittal (e.g., Business Plan) is complete. |

### 6.16.2 Affected Environment

As discussed in Section 2.0, Project Description, the VV2 Project involves development of a hybrid power generating facility that combines natural gas-fired combined-cycle equipment integrated with solar thermal equipment. There are five permitted Class III landfills located in San Bernardino County within approximately 75 miles of the VV2 Project site. There are three major permitted Class I hazardous waste landfills located in California. The locations and the permitted, operating, and remaining capacities of the hazardous and non-hazardous waste landfills are summarized below and in Table 6.16.4.

**Table 6.16-4**
**Solid and Hazardous Waste Disposal Facilities**

| Waste Disposal Site | Title 23 Class | Maximum Permitted Capacity | Current Operating Capacity [1] | Remaining Capacity | Estimated Closure Date | Enforce-ment Action Taken? |
|---|---|---|---|---|---|---|
| Victorville Landfill 8600 Stoddard Wells Road Victorville, CA | Class III | 83,200,000 cubic yards | 1,600 tons/day | 82,200,000 cubic yards | 2059 | No |
| Barstow Landfill 32553 Barstow Road Barstow, CA | Class III | 3,600,000 cubic yards | 750 tons/day | 218,000 cubic yards | 2012 | No |
| Mid-Valley Landfill 6087 Sierra Avenue Rialto, CA | Class III | 62,000,000 cubic yards | 7,500 tons/day | 72,300,000 cubic yards | 2033 | No |
| San Timeteo Landfill 31 Refuse Road Redlands, CA | Class III | 20,400,000 cubic yards | 1,000 tons/day | 9,491,163 cubic yards | 2014-2016 | No |
| Waste Management Kettleman Hills Landfill 36251 Old Skyline Road Kettleman City, CA | Class I | 10,700,000 cubic yards | 8,000 tons/day | 6,000,000 cubic yards | 2037-2038 | No |
| Clean Harbors Buttonwillow Landfill Kern County, CA | Class I | 14,300,000 cubic yards | 4,500 tons/day | 9,500,000 cubic yards | 2040 | No |

Source: CIWMB/SWIS, September 2006
[1] Maximum Permitted Throughput

### 6.16.2.1 Non-Hazardous Solid Waste Disposal Sites

Non-hazardous solid waste generated at the VV2 Project site during both construction and operation phases will be taken offsite for recycling or disposal to a permitted Class III landfill.

There are five Class III landfills located in San Bernardino County within approximately 75 miles of the VV2 Project site: the Victorville, Barstow, Colton, Mid-Valley (Rialto, CA), and San Timeteo (Redlands, CA) landfills. The permitted, operating, and remaining capacities of these landfills are described in Table 6.16-4. The nearest Class III landfill to the Project site is the Victorville Landfill, which is expected to be used for disposal of the Project's non-hazardous solid waste during both construction and operation. The

Victorville Landfill has sufficient capacity to remain operational until approximately 2059 (CIWMB, 2006).

#### 6.16.2.2 Hazardous Waste Disposal Sites

Hazardous waste generated at the facility will be taken offsite for recycling or disposal by a licensed and permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility (i.e., Class I landfill).

There are two major operating hazardous waste (Class I) landfills in California:

- Clean Harbors Buttonwillow Landfill (Kern County) located on Lokern Road between State Highways 33 and 58 is a treatment, storage and disposal facility that accepts Class I solid wastes and Class II solid and liquid wastes. The permitted capacity of this landfill is 14.3 million cubic yards with an estimated 34 years of operational life remaining (Bouie, 2006). The EPA Identification Number for this facility is CAD980675276.

- Chemical Waste Management Landfill located in Kettleman Hills (Kings County) on State Highway 41 approximately two miles west of Interstate 5. The Class I portion of this landfill has approximately 6.0 million cubic yards remaining capacity of a total permitted capacity of 10.7 million cubic yards. The remaining life of this landfill is approximately 30 years (Yarborough 2006). The EPA Identification Number for this facility is CAD000646117.

- Clean Harbors also owns a Class 1 facility in Westmorland (Imperial County). This facility is not currently accepting waste because the Clean Harbors' Buttonwillow facility can handle the hazardous waste volumes being generated. There is the possibility that the facility could be reopened if needed. In addition, Clean Harbors personnel indicate that a new landfill could be developed at the site (Nielson, 2006).

The permitted, operating, and remaining capacities of these landfills are described in Table 6.16-4. It is expected that hazardous wastes generated during the construction and operational phases of the VV2 Project will be disposed at the Buttonwillow landfill.

#### 6.16.2.3 Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was prepared for the VV2 Project site in order to identify, to the extent feasible, recognized environmental conditions relevant to development of the Project. This subsection summarizes the ESA and its findings.

**Site History.** Historical research indicates that the plant site and laydown areas were and currently are almost entirely vacant undeveloped land. A few dwellings appear and are depicted on site in the 1984 aerial photograph. Currently, there is one occupied dwelling on the site.

**Incidents and Notifications.** Federal and State environmental-related databases were searched for the area surrounding the VV2 Project site. The radial search distances equal or exceed those proposed by the American Society for Testing and Materials (ASTM) for assessing the environmental condition of commercial real estate. The site was not identified on the Federal and State environmental-related databases that were searched. Trichloroethylene (TCE) contamination in groundwater associated with the former George Air Force Base (GAFB - now SCLA) was identified as part of the GAFB Superfund site. TCE contamination associated with the GAFB Superfund site was found to extend through the locations associated with the proposed linear facilities near the VVWRA treatment plant. This TCE groundwater plume is present in the lower aquifer (approximately 210 to 250 below ground surface [bgs]) along the routes for the VV2 Project sanitary wastewater pipeline and transmission lines. No other issues of concern were identified.

**Summary of Findings and Conclusions.** The presence of TCE-impacted groundwater near the VVWRA treatment plant is a recognized environmental condition (REC) in association with the VV2 Project linear facilities. Also, the potential was identified for de minimus hazardous materials or wastes (cleaning chemicals, petroleum product residues) to be present in abandoned vehicles and/or abandoned structures on the Project site.

**Recommendations.** Based on the above findings, the following measures were recommended in the ESA:

- Although the depths of excavation associated with installation of VV2 Project linear facilities are not expected to approach the approximately 210 to 250-foot bgs depths where the TCE groundwater contamination exists (e.g., the excavations for Project pipelines are not expected to exceed 6 feet bgs and excavations for the transmission line structures are not expected to exceed 30 feet bgs), the most current data associated with the TCE plume should be obtained from the SCLA. This data should be obtained prior to construction activities associated with the linear facilities to confirm that the depths of TCE contamination are well separated from the depths of Project excavations along the linear routes.
- Construction planning should include consideration of the potential presence of hazardous materials or wastes (e.g., cleaning chemicals, petroleum product residues) associated with abandoned vehicles and/or abandoned structures on the site. As

appropriate, additional investigation should be performed to establish the nature and extent of contamination, and identified hazardous materials/wastes (if present) should be managed and disposed in accordance with applicable regulations.

### 6.16.3 Environmental Impacts

The analysis of environmental impacts related to waste management issues from the VV2 Project is based on the following criteria:

- Offsite treatment or disposal of non-hazardous solid wastes must not significantly impact available landfill, recycling or treatment program capacities.
- Offsite disposal of hazardous wastes must not significantly impact available Class I landfill capacity.
- The facility must comply with all applicable LORS regarding management of non-hazardous and hazardous wastes.

Additionally, according to the California Environmental Quality Act (CEQA) Guidelines, a project has a significant impact if it:

- Breaches standards relating to solid waste or litter control.
- Creates a potential public health hazard or involves materials which pose a hazard.
- Results in a need for new systems or substantial alterations to existing waste disposal facilities.

The following sections describe the types of waste that are expected to be generated during the construction and operation of the proposed VV2 Project and how non-hazardous solid waste and hazardous wastes will be managed.

To ensure that public health and safety and the environment are protected, a facility closure plan will be prepared prior to Project closure. The facility closure plan will outline the proper steps to be taken for both permanent and temporary closure of the Project. The closure plan will ensure that the management, recycling, and/or disposal of non-hazardous and hazardous wastes is in accordance with applicable LORS. See Section 4.0 for additional information on facility closure.

#### 6.16.3.1 Construction

Table 6.16-5 summarizes the anticipated waste streams generated during VV2 Project construction, along with appropriate management methods for treatment or disposal.

**Table 6.16-5**
**Summary of Construction Waste Streams and Management Methods**

| Waste Stream and Classification | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | On-site Treatment | Waste Management Method/ Off-site Treatment |
|---|---|---|---|---|---|
| Construction waste - Hazardous | Empty hazardous material containers | 1 cu yd/wk | Intermittent | None. Accumulate onsite for < 90 days | Return to vendor or dispose at permitted hazardous waste disposal facility |
| Construction waste - Hazardous | Solvents, used oil, paint, oily rags | 175 gallons | Every 90 days | None. Accumulate onsite for <90 days | Recycle or use for energy recovery |
| HRSG cleaning waste - Hazardous | Chelant type solution | 60,000 gallons | One time event | None | Dispose to permitted hazardous waste disposal facility or recycle |
| Spent batteries - Universal | Lead acid, alkaline type | 20 in 2 years | Intermittent | None. Accumulate onsite for <90 days | Recycle |
| Construction waste - Nonhazardous | Scrap wood, concrete, steel, glass, plastic, paper | 40 cu yd/wk | Intermittent | None | Dispose to Class III landfill |
| Sanitary waste - Nonhazardous | Portable Chemical Toilets – Sanitary Waste | 200 gpd | Periodically pumped to tanker truck by licensed contractors | None | Ship to sanitary wastewater treatment plant |
| Office waste - Nonhazardous | Paper, aluminum, food | 3 cu yd/wk | Intermittent | None | Recycle or dispose to Class III landfill |

**Non-Hazardous Solid Waste Disposal.** Solid waste generated from VV2 Project construction activities may include scrap lumber, plastic, metal, glass, excess concrete, and empty non-hazardous containers. Management and disposal of these wastes will be the responsibility of the construction contractor(s). Typical management practices for this material include recycling when possible, proper storage of waste to prevent wind dispersion, and routine pick-up and disposal of waste to approved local Class III landfills.

Solid wastes from Project construction are not expected to significantly impact the capacity of the Class III landfills in San Bernardino County.

Wastewater generated at the construction site will include sanitary wastes, dust suppression drainage, and equipment wash water. Construction-related sanitary wastes, collected in portable self-contained chemical toilets, will be pumped periodically. Potentially contaminated equipment wash water will be contained at designated wash areas and transported to a wastewater treatment facility via a licensed hauler.

**Hazardous Waste Disposal.** Most of the hazardous waste generated during VV2 Project construction, such as paint and primer, paint thinner, solvents, vehicle and equipment maintenance-related materials and HRSG cleaning wastes, can be recycled. Empty containers (i.e., drums and totes) will be returned to the vendor if possible. The small quantities of hazardous waste that cannot be recycled are not expected to significantly impact the capacity of the Class I landfills located in California.

In the unlikely event that contaminated soil is encountered during excavation activities, the soil will be segregated, sampled, and tested to determine appropriate disposal/treatment options. If the soil is classified as hazardous, the City of Victorville Fire Department, Hazardous Materials Division will be notified and the soil will be hauled to a Class I landfill or other appropriate soil treatment and recycling facility, if required. The City of Victorville Fire Department, Hazardous Materials Division also will be notified during construction if wells, tanks, or other underground storage facilities are discovered. Subsequent removal of such equipment, including potential remediation, will be conducted in accordance with CCR Title 22 and the California Health and Safety Code.

#### 6.16.3.2 Operations

The operation of the VV2 Project is expected to generate sanitary wastewater, non-hazardous wastes, and small quantities of hazardous wastes. Operation of the natural gas and reclaimed water supply pipelines will generate minimal quantities of waste. The types of waste and their estimated volumes are described below and summarized in Table 6.16-6.

**Non-Hazardous Waste Disposal.** Non-hazardous solid wastes generated during operation of the power plant will include solid waste from routine maintenance (including used air filters, spent demineralizer resins, sand and filter media, cooling tower basin sludge, spent softener resins, clarifier blowdown sludge), and office and domestic wastes. Maintenance-derived wastes will be recycled to the extent practical. Those maintenance-derived wastes that cannot be recycled will be transported for disposal at a Class III landfill. Domestic wastes, including office paper, newsprint, aluminum cans, plastic, and glass containers and

other non-hazardous solid waste material, will be recycled to the extent practical. The remaining solid wastes will be removed on a regular basis by a permitted waste hauler for disposal at a Class III landfill.

**Table 6.16-6**
**Summary of Operation Waste Streams and Management Methods**

| Waste Stream and Classification | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|---|---|---|---|---|---|
| | | | | On-Site | Off-Site |
| Used Hydraulic Fluid, Oils and Grease, Oily Filters - Hazardous | Turbines and other users of hydraulic actuators | <5 gallons/day | Intermittent | Accumulated for <90 days | Recycle |
| Spent batteries - Hazardous | Lead acid | 20 every 2 years | Intermittent | Accumulated for <90 days | Recycle |
| Spent batteries - Universal | Rechargeable and household types | <10 per month | Continuous | Accumulate for <1 year | Recycle |
| Spent fluorescent bulbs - Hazardous | Facility lighting | < 50 per year | Intermittent | Accumulate for <1 year | Recycle |
| Spent SCR catalyst - Hazardous | HRSG, Heavy metals | 20,000 $ft^3$ | Intermittent Once every 3 to 5 years | None | Recycle |
| Spent Demineralizer resin -Nonhazardous | Demineralizer | 10 $ft^3$ | Once every 3 years | None | Recycle |
| Anthracite & sand, filter, media - Nonhazardous | Media filter | 100 $ft^3$ | Once every 3 years | None | Recycle |
| Cooling Tower Basin Sludge - Nonhazardous | Cooling tower | 2 tons/year | Annually | None | Dispose to waste manage-ment facility |
| Effluent from oily water separation system - Hazardous | Plant washdown area/oily water separation system | 3,000 gallons/year | Intermittent | None | Recycle |
| Spent softener resin - Nonhazardous | Softener | 100 $ft^3$ | Once every 3 years | None | Recycle |
| Oily rags, oil absorbent - Hazardous | Various | 55 gallons/ month | Intermittent | Accumulated for <90 days | Sent offsite for recovery or disposed at Class I landfill |

**Table 6.16-6**
**Summary of Operation Waste Streams and Management Methods**

| Waste Stream and Classification | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|---|---|---|---|---|---|
| | | | | On-Site | Off-Site |
| Water Treatment Solids (Including cooling tower waste water treatment solids – Nonhazardous | Filter press solids, dewatered sludge cake | 1,220 pounds per hour | Continuous | None | Dispose to waste management facility |
| Sanitary wastewater - Nonhazardous | Toilets, washrooms | 5,400 gallons/day | Continuous | None | Dispose to POTW |
| Used air filters – Nonhazardous | CTG inlet | 2,100 filters | Every 5 yrs | None | Recycle |

It is anticipated that disposal of non-hazardous solid waste from the VV2 Project will represent only a minimal increase (a small fraction of one percent) relative to the capacities of the local Class III landfills (see Table 6.16-5). Therefore, the quantities of non-hazardous solid waste from the Project will not adversely impact available landfill capacity and can be considered insignificant.

As described in Section 2.0, Project Description, the VV2 Project will be a Zero Liquid Discharge (ZLD) facility, and thus, with the exception of sanitary waste that will be sent to the VVWRA treatment plant, there will be no liquid discharges from the Project.

**Hazardous Waste Disposal.** A discussion of hazardous wastes anticipated to be generated during VV2 Project operation is provided in Table 6.16-6. A summary of that information is provided below:

- Used hydraulic fluids, oils, greases, oily filters and rags oil and associated wastes: Used oils, greases, and oily effluent from the water separation systems will be accumulated and maintained onsite in secure hazardous waste accumulation areas within secondary containment. These wastes will be recycled whenever possible. Used oil and recovered oil from the oil/water separator will be recycled by a licensed oil recycler. Oily rags and oil absorbent (used to contain small spills) will be generated as a normal part of maintenance activities. These wastes will be sent for energy recovery or disposed in a Class I landfill.
- SCR catalyst: Spent catalyst will be generated approximately every three to five years. The spent catalysts will be recycled by the manufacturer for metals reclamation and/or disposed of in a Class I landfill.

- Cleaning solutions: Waste cleaning solutions, such as solvents and other chemical cleaning solutions will be generated during routine equipment maintenance and repair. These waste cleaning solutions will be collected and recycled by a licensed contractor on a regular basis.
- Spent batteries: Lead-acid batteries will be returned to the vendor. Other spent batteries will be accumulated onsite in labeled containers and recycled at least annually per California Universal Waste requirements.

Hazardous wastes, as well as hazardous materials that are spilled or otherwise become unsuitable for use, will be stored in an appropriately contained hazardous waste accumulation area. The containment area will be sized to hold a volume equal to at least 110 percent of the largest container capacity. The hazardous waste accumulation areas will be inspected and maintained on a weekly basis. The wastes will be transported for recycling or disposal in accordance with State hazardous waste generator requirements.

Hazardous wastes will be transported by a licensed hazardous waste hauler using a Uniform Hazardous Waste Manifest and disposed or recycled at an appropriately-permitted facility. Copies of manifests, reports, waste analysis, exception reports, land disposal restriction notifications, and other related documents will be maintained onsite for at least three years.

#### 6.16.3.3 Cumulative Impacts

The Class I and Class III landfills that serve the Project area have substantial remaining disposal capacities. Project waste generation volumes will be modest. Therefore, the VV2 Project's contribution to potential cumulative impacts on waste disposal facilities is expected to be less than significant.

### 6.16.4 Mitigation Measures

Although the VV2 Project will not result in significant impacts related to the management of non-hazardous and hazardous wastes, the following mitigation measures will be implemented:

**WM-1** A detailed Waste Management Plan and procedures to minimize hazardous and non-hazardous waste generation will be prepared prior to startup to assure proper storage, labeling, packaging, recordkeeping, manifesting, minimization, and disposal of wastes. Employees will be trained in procedures to reduce the volume of hazardous waste generated at the proposed facility. The procurement of hazardous materials will be

controlled to minimize surplus materials onsite and to prevent unused materials from becoming "off specification." Non-hazardous materials will be used in lieu of hazardous materials whenever possible. Hazardous materials will be reused or recycled whenever possible. The waste management plan will include:

- A description of each hazardous waste stream, including origin, estimates of amounts, frequency of generation, and classification of waste
- Handling, transport, treatment, and disposal procedures for each waste
- Preparedness, prevention, contingency and emergency procedures
- Personnel training

Spill control and management procedures will be included in the detailed Hazardous Waste Management Plan to be developed for the VV2 Project. The purpose of the spill control and management procedures is to avoid accidental mixing of incompatible chemicals and spills during transfer of chemicals. The design of spill control and management procedures will include the containment, collection, and treatment systems.

**WM -2** The VV2 Project will obtain a hazardous waste generator identification number from the DTSC and appropriate hazardous waste generator permits from the City of Victorville Fire Department.

**WM-3** Wastes identified as hazardous will be stored onsite for no more than 90 days (or other accumulation period as allowed by CCR Title 22 for hazardous waste generators) and will be managed in accordance with Federal and State hazardous waste generator requirements. Hazardous wastes will be stored within secondary containment in an appropriately segregated hazardous waste accumulation area. The containment area will be sized to hold a volume equal to the largest container plus an additional 10 percent to account for precipitation. The hazardous waste accumulation area will be visually inspected and maintained weekly.

**WM-4** Hazardous wastes will be collected by a licensed hazardous waste hauler using hazardous waste manifests. Hazardous waste generator reports will be submitted biannually to DTSC. Copies of manifests, reports, waste analyses, exception reports, etc. will be kept onsite and available for inspection for at least three years.

**WM-5** Facility employees will receive hazardous waste management training, which will include, but not limited to, the following subjects:

- Hazardous waste characteristics
- Use and management of containers
- Waste packing
- Marking and labeling
- Accumulation/storage areas
- Inspections
- Emergency equipment
- Contingency planning
- Emergency response procedures
- Hazardous waste manifesting
- Waste minimization

**WM-6** Contract specifications for construction of the on-site facilities (e.g., power generating facilities and on-site auxiliary facilities), and linear facilities (transmission lines, natural gas supply pipeline, reclaimed water supply, and sanitary wastewater pipeline), or any other facilities associated with the Project will include provisions that require the contractor to manage construction-generated hazardous materials and solid waste in accordance with established good housekeeping practices. In addition, the VV2 Project will require each contractor to provide a written summary of how they will appropriately handle and dispose of construction-generated hazardous materials during and following construction.

**WM-7** As part of construction planning prior to the start of actual construction on Project linear facilities, the most current data associated with the George Air Force Base TCE groundwater plume that underlies portions of the Project linears routes should be obtained from the SCLA to confirm that TCE plume depth is still understood to be well below the depths of Project excavations.

**WM-8** Project construction planning will include consideration of the potential presence of hazardous materials or wastes (e.g., cleaning chemicals, petroleum product residues) associated with abandoned vehicles and/or abandoned structures on the VV2 plant site. Additional investigation will be performed to delineate the nature and extend of contamination, and as needed, identified hazardous materials/wastes (if present) will be managed and disposed in accordance with applicable regulations.

### 6.16.5 References

California Integrated Waste Management Board (CIWMB), Solid Waste Information System (SWIS) Internet Website, September 2006.

Coon, G., 2006. City of Victorville Fire Department - Hazardous Materials Specialist. Personal communication with C. Weir, ENSR. September.

Department of Toxic Substances Control, 2006. Federal ID numbers (RCRA) U.S. Region IX. Personal communication between C. Weir, ENSR and "Paul" (no last name given.). September.

ENSR Corporation, 2006. Phase I Environmental Site Assessment for Victorville 2 Hybrid Energy Project, Victorville, California. June.

Nielsen, D., 2006. Clean Harbors, Buttonwillow Facility. Personal communication with C. Weir, ENSR. October.

Yarbrough, Terry, 2006. Waste Management Inc., Kettleman Hills Facility. Personal communication with C. Weir, ENSR. September.