

WASTE MANAGEMENT

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SUMMARY OF CONCLUSIONS

Waste generated during construction and operation of the Humboldt Bay Repowering Project (HBRP) or those associated with remediation of existing on-site contamination would not result in any significant adverse impacts if the management measures contained in the Application for Certification and the proposed conditions of certification are implemented pursuant to the pertinent laws, ordinances, regulation, and standards.

INTRODUCTION

This Preliminary Staff Assessment (PSA) presents an analysis of issues associated with managing wastes generated from constructing and operating the proposed HBRP and any hazardous wastes already existing on-site as a result of past activities. Staff evaluated the proposed waste management plans and mitigation measures designed to reduce the risks and environmental impacts associated with handling, storing, and disposing of project-related hazardous and nonhazardous wastes and for potential site remediation. The technical scope of this analysis encompasses solid wastes existing on-site and those generated during facility construction and operation. Wastewater is more fully discussed in the **Soil and Water Resources** section of this document.

Energy Commission staff's objectives in its waste management analysis are to ensure that:

- The management of the wastes would be in compliance with all applicable laws, ordinances, regulations, and standards (LORS). Compliance with LORS ensures that wastes generated during the construction and operation of the proposed project would be managed in an environmentally safe manner.
- The disposal of project wastes would not result in significant adverse impacts to existing waste disposal facilities.
- Upon project completion, the site is managed such that contaminants would not pose a significant risk to humans or the environment.

LAWS, ORDINANCES, REGULATION, AND STANDARDS

WASTE MANAGEMENT Table 1
Laws, Ordinances, Regulations, and Standards (LORS)

Applicable Law	Description
Federal	
42 U.S.C. § 6922 Resource Conservation and Recovery Act	The RCRA establishes requirements for the management of hazardous wastes from the time of generation to the point of ultimate treatment or disposal. Section 6922 requires generators of hazardous waste to comply with requirements regarding: <ul style="list-style-type: none"> • Record keeping practices which identify quantities of hazardous wastes generated and their disposition, • Labeling practices and use of appropriate containers, • Use of a manifest system for transportation, and • Submission of periodic reports to the Environmental Protection Agency (EPA) or authorized state agency.
Clean Water Act (CWA)	Controls discharge of wastewater to the surface waters of the U.S.
State	
California Integrated Waste Management Act (CIWMA)	Provides an integrated statewide system of solid waste management by coordinating state and local efforts in source reduction, recycling, and land disposal safety. Counties are required to submit Integrated Waste Management Plans to the state.
California Health and Safety Code §25100 et seq. (Hazardous Waste Control Act of 1972, as amended)	This act creates the framework under which hazardous wastes must be managed in California. It mandates the State Department of Health Services (now the Department of Toxic Substances Control (DTSC) under the California Environmental Protection Agency (Cal EPA)) to develop and publish a list of hazardous and extremely hazardous wastes, and to develop and adopt criteria and guidelines for the identification of such wastes. It also requires hazardous waste generators to file notification statements with Cal EPA and creates a manifest system to be used when transporting such wastes. The Humboldt County Department of Environmental Health enforces this Act.
Porter-Cologne water Quality Control Act	Controls discharge of wastewater to surface waters and groundwaters of California.
California Fire Code	Controls storage of hazardous materials and wastes and the use and storage of flammable/combustible liquids.
Local	
Humboldt County Integrated Waste Management Plan	Provides guidance for local management solid waste and household hazardous waste. Responsible for administering and enforcing the CIWMA for solid, nonhazardous waste for HBRP.
Humboldt County General Plan, Public Services and Facilities, Chapter 4, Section 4600	Establishes County policies on reducing waste generation, meeting waste diversion goals, encouraging cleanup of contaminated sites, and ensuring adequate waste disposal capacity for the County's solid waste.
Humboldt Fire District	Adopts the Uniform Fire Code.

SETTING

The proposed HBRP site would be located at 1000 King Salmon Avenue, Eureka, California, on 5.4 acres of a 143-acre parcel currently occupied by the existing PG&E Humboldt Bay Power Plant. This proposed project would replace the combined 105 MW for the existing Units 1 and 2 and the combined 30 MW for the two Mobile Emergency Power Plants (MEPP) at the Humboldt Bay Power Plant (HBPP) site.

Construction of the proposed HBRP will occur simultaneously with decommissioning activities of Humboldt Bay Power Plant Unit 3. Unit 3 had stopped operating in 1976 and is now in the process of decommissioning and demolition under a Nuclear Regulatory Commission (NRC) SAFSTOR license. The decommissioning process may take up to 12 years and includes the construction of an Independent Spent Fuel Storage Installation (ISFSI) on the HBPP property prior to demolition of Unit 3 structures (PG&E 2006a Section 8.16.1).

Phase I and Phase II Environmental Site Assessments, a Historical Site Assessment, and radiological monitoring have been conducted for this site. A discussion of the findings of these assessments and the need for further assessments is included below under the heading "Existing Contamination" in the impacts section.

ASSESSMENT OF IMPACTS AND DISCUSSION OF MITIGATION

METHOD AND THRESHOLD FOR DETERMINING SIGNIFICANCE

Two issues are addressed in this Waste Management section: potential site contamination and the methods used to handle wastes (Class I hazardous wastes, Class II designed wastes, and Class III municipal solid wastes) during construction and operations. The methods staff uses and the thresholds for determining significance of impacts are different for these two issues.

For any site proposed for the construction of a power plant in California, the applicant must provide sufficient documentation about the nature of any contamination on the site. Staff requires that at the least, a Phase I Environmental Site Assessment (ESA) be prepared and submitted to the Energy Commission for staff's review and evaluation. A Phase I ESA provides a history of use of the site, often as far back as the mid-1800s, and a list of any hazardous waste release within a certain distance of the site. If there is a reasonable potential that the site contains hazardous waste, soil or groundwater would be sampled and analyzed as part of a Phase II ESA.

Staff may utilize either of two approaches or both for determining if hazardous waste present on the site would pose a risk to on-site workers (construction or operations) or the off-site public. The first approach follows standards promulgated by Cal-EPA, principally by the Department of Toxic Substances Control (DTSC), the Office of Environmental Health Hazard Assessment (OEHHA), and the Regional Water Quality Control Boards (RWQCB). Staff would compare the levels of contaminants found on-site with standards such as the Cal-EPA OEHHA California Human Health Screening Levels (CHHSLs). If metals are suspected of being present at unsafe levels, staff would

first compare those levels to levels that occur naturally in soil or water as tabulated by DTSC or other federal agencies.

The second approach involves the preparation of a site-specific Human Health Risk Assessment and/or Ecological Risk Assessment. The human health risk assessment would follow Cal-EPA guidelines and must address all affected populations including the most burdened and compromised receptors. Staff would require the applicant to prepare such an assessment and would require some form of remediation if the human health cancer risk exceeded one-in-one million or the non-cancer hazard index exceeded 1.0, per 42 U.S.C. § 6922 (Resource Conservation and Recovery Act), California Health and Safety Code §25100 et seq. (Hazardous Waste Control Act of 1972, as amended), and the Humboldt County General Plan, Chapter 4, Section 4600, Solid Waste Collection/Disposal. An ecological risk screening evaluation or risk assessment would be required if contaminants might pose a risk to biological receptors. The applicant also would follow Cal EPA and Regional Water Quality Control Board guidelines and if the ecological risks were significant, appropriate mitigation might be required.

Regarding the management of wastes, staff reviews the applicant's proposed solid and hazardous waste management methods and determines if the methods meet the state standards for waste reduction and recycling. Staff then reviews the available off-site treatment and disposal sites available and determines whether or not the proposed power plant's waste would have a significant impact on the disposal sites allotted daily, yearly, or lifetime volume of waste it is allowed to receive. Staff uses a threshold of less than 10% impact on a waste disposal facility to determine if the impact would be significant.

DIRECT/INDIRECT IMPACTS AND MITIGATION

Existing Contamination

According to the applicant and the 2005 Radiological Environmental Monitoring Report, radioactivity levels at the HBRP site meet the NRC's standards for public use (PG&E 2006a 8.14.1.1 and CH2MHILL 2007a Attachment DR51-1). In addition, the applicant stated that a detailed radiological contamination study will be conducted for the HBRP site and any contaminated soil will be removed before construction of HBRP begins. Removal of contaminated soil would be under the jurisdiction of the NRC as part of the decommissioning of Unit 3 and not part of the HBRP project. In response to staff's data request #51 (requesting the submittal of this radiological survey of the HBRP site to staff), the applicant has stated that they are willing to accept a Condition of Certification that would ensure that the radiological survey be conducted and any contaminated soil removed from areas with unacceptable levels of radionuclides before construction of HBRP begins in those areas. In addition, the applicant suggested a modification to the standard Conditions of Certification **Waste-1** and **-2** to address any encounter of unexpected levels of radioactivity during construction activities. Staff agrees with this approach and proposes modifications to the above mentioned Conditions of Certification as well as a new Condition of Certification **Waste-6** which will require that a radiological survey be conducted and submitted to the CPM prior to construction of the HBRP including a demonstration that any necessary remediation of contaminated soil has been conducted according to applicable regulations.

A Historical Site Assessment (HSA) was conducted for the Humboldt Bay Power Plant site in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (PG&E 2006a Appendix 8.14-B, and CH2MHILL 2007a Attachment DR57-1). The final HSA classified the HBRP site as a Class 3 area, which is an area not expected to have residual radioactivity, or an area expected to have levels of residual radioactivity sufficiently below the Derived Concentration Guideline Limit (DGGL), which is the level required by NRC for termination of license. In past surveys of the HBRP site radiological contamination was detected, and it is possible that residual contamination could exist in the roof structure of some buildings. The applicant suggested that this possibility be investigated during any construction activities associated with those structures. Staff's modified Conditions of Certification **Waste-1** and **-2** will also address the possibility of encountering radioactivity on existing structures.

The HSA also noted that a Solid Waste Management Unit (SWMU) containing chemical waste and heavy metals is buried north of Unit 2 in a marked and managed location (PG&E 2006a, 8.14.1.1.2).

A Phase I Environmental Site Assessment (ESA) was conducted for the HBRP site in 2006 by E2 Consulting Engineers in accordance with methods prescribed by the American Society for Testing and Materials (ASTM Standard E 1527-00). The Phase I ESA studied the entire HBRP site and construction laydown areas, the offsite temporary parking area, and the offsite short-term delivery parking area. The HBRP site was divided into 14 areas for the Phase I ESA. Four of these areas were found to have RCRA Clean Closure notices, and two had no "recognized environmental conditions" (RECs) per the ASTM definition. That is, there was no evidence or record of any use, spillage or disposal of hazardous substances on the site, nor any other environmental concern that would require remedial action. The eight remaining areas were identified as potentially having RECs (possibly organic compounds and metals), and therefore preparation of a Phase II ESA was recommended for these areas to assess potential contamination (PG&E 2006a, Section 8.14.1.1.1 and Appendix 8.14A).

The Phase I ESA could not identify the exact location of the Former Drum Storage Area, and so the applicant stated that the waste management plan will address the possibility of encountering contaminated soils when excavating in certain areas of the HBRP site (southeast of the Oil Water Separators, near the fireside waste bin). The Phase I ESA found no RECs in either of the offsite parking areas (PG&E 2006a, Section 8.14.1.1.1).

In response to staff's Workshop Query #21 (requesting a figure showing the locations of sampling points for the Phase II ESA), the applicant submitted Figure WSQ21-1 (CH2MHILL 2007c), which shows the eight areas with potential RECs (identified by the Phase I ESA), an additional seven areas of investigation added during the December 2006 site walk, and the Phase II ESA's sampling locations that correspond to each of these areas. Staff concluded that the sampling locations were adequate.

In response to staff's data requests #49 and #50 (requesting a Phase II investigation and a remediation plan for any areas with identified RECs, respectively) the applicant provided the results of a Phase II assessment (CH2MHill 2007_). The Phase II ESA found several Chemicals of Concern on the site, including PCBs, arsenic, chromium, TPH, PAHs, and some VOCs () and recommended specific actions consisting of soils

removal, soil treatment, the installation of groundwater monitoring wells, and further characterization of the chromium levels found on the site to determine the presence or absence of hexavalent chromium. Staff has reviewed these recommendations and concurs with their implementation.

In addition, the applicant stated that the Humboldt Bay Power Plant NRC license for Unit 3 requires compliance with 10 CFR Part 20 (Standards for the Protection against Radiation) which ensures that workers (including those of HBRP site) are not exposed to radiation above permitted levels. As part of compliance with the above standards, Radiological Environmental Monitoring Reports are submitted annually and proper radiation protection and management programs are implemented. The NRC regularly inspects and audits the site to ensure compliance with these requirements (CH2MHILL 2007a, Response to DR #51).

Staff concludes that adoption of the proposed Conditions of Certification **Waste-6** will ensure that radioactive contamination will be properly investigated and remediated prior to HBRP construction and therefore reduce the risk of radiological exposure to insignificant.

Staff also finds that after proper remediation of any contamination identified in the above mentioned investigations (including any remediation recommended by the Phase II ESA), proposed conditions of certification **Waste-1** and **Waste-2** (which would require having a Registered Professional Engineer or Geologist with experience in remedial investigation and feasibility studies available for consultation during soil excavation and grading activities) would ensure that any unexpected contamination encountered during construction activities will be properly handled and disposed. In addition, these conditions have been modified to address the unexpected encounter of residual radioactivity in either soil or structures during construction activities.

Construction Impacts and Mitigation

Site preparation and construction of the proposed generating plant and associated facilities would last approximately 18 months and generate both nonhazardous and hazardous wastes in solid and liquid forms. Before construction can begin, the project owner would be required to develop and implement a Construction Waste Management Plan as per proposed Condition of Certification **Waste-5**.

Nonhazardous solid wastes generated during construction would include up to 60 tons of paper, wood, glass, and plastics from packing and insulating materials, empty non-hazardous chemical containers, and waste from the demolition of some existing structures. Approximately 30 tons of metal debris from welding/cutting activities, packing materials, electrical wiring, and empty non-hazardous chemical containers would be generated during construction. An additional 1,200 tons of metal waste would be generated from the demolition of the transmission tower and other existing structures and piping. Demolition activities would also generate about 3,700 tons of concrete waste (PG&E 2006a, Section 8.14.1.2.1).

All nonhazardous solid wastes would be recycled to the extent possible and non-recyclable wastes would be collected weekly by a licensed hauler and disposed of in a solid waste disposal facility (Class III landfill), as per Title 14, California Code of

Regulations, §17200 et seq. (Minimum Standards for Solid Waste Handling and Disposal).

Hazardous wastes anticipated to be generated during construction may include welding materials, batteries, paint, flushing and cleaning fluids, and solvents. The quantities of flushing and cleaning fluids are estimated to be once or twice the internal volume of the pipes cleaned. The quantity of all other hazardous wastes is expected to be minimal (PG&E 2006a Section 8.14.1.2.1).

Wastewater would also be generated during construction, including sanitary waste, equipment washdown, and storm water runoff (see the **Soil and Water Resources** section of this document for a more detailed discussion of this topic). Wastewater would be tested and classified to determine the proper method of disposal (PG&E 2006a, Section 8.14.1.2.1).

Any waste classified as hazardous would be collected at satellite locations and transported daily to the contractor's 90-day hazardous waste storage area, located in the construction laydown area. The wastes thus accumulated would be properly manifested, transported and disposed of at a permitted hazardous waste management facility by licensed hazardous waste collection and disposal companies (PG&E 2006a, Section 8.14.4.1).

The applicant would be considered the generator of hazardous wastes at this site during the construction period and therefore, prior to construction, the project owner would be required to obtain a unique hazardous waste generator identification number from the Department of Toxic Substances Control (DTSC) in accordance with DTSC regulatory authority, as per proposed Condition of Certification **Waste-3**. Staff reviewed the disposal methods described in AFC subsection 8.14.4.1 and concluded that all wastes would be disposed of in accordance with all applicable LORS. Should any construction waste management-related enforcement action be taken or initiated by a regulatory agency, the project owner would be required by proposed Condition of Certification **Waste-4** to notify the CPM whenever the owner becomes aware of this action.

Operation Impacts and Mitigation

The proposed HBRP would generate both nonhazardous and hazardous wastes in solid and liquid forms under normal operating conditions. Before operations can begin, the project owner would be required to develop and implement an Operations Waste Management Plan as per proposed Condition of Certification **Waste-5**.

Nonhazardous Solid Wastes

Nonhazardous solid wastes anticipated to be generated during operation include up to 1,040 cubic yards of waste annually, comprised of maintenance wastes and office wastes. These wastes would be recycled to the extent possible and non-recyclable wastes would be regularly transported offsite to a solid waste disposal facility (PG&E 2006a, Sections 8.14.1.2.2 and 8.14.4).

Nonhazardous Liquid Wastes

Nonhazardous liquid wastes would be generated during facility operation, and are discussed in the **Soil and Water Resources** section of this document. Storm water runoff would be managed in accordance with a Drainage, Erosion and Sediment Control Plan. Other wastewaters would be sampled to determine their quality and disposed of by the appropriate method (PG&E 2006a, Section 8.14.4.2.2 and 8.14.3.2).

Hazardous Wastes

The applicant would be considered to be the generator of hazardous wastes at this site during operations and thus the project owner's unique hazardous waste generator identification number obtained during construction would still be required for generation of hazardous waste, as per proposed Condition of Certification **Waste-3**. Hazardous wastes anticipated to be generated during routine project operation include waste lubricating oil, lubrication oil filters, spent SCR catalyst, oily rags, oil sorbents, lead-acid batteries, and chemical cleaning wastes. Table 8.14-1 of the AFC provides a complete list of these wastes, the amounts expected to be generated, and their disposal methods. The amounts of hazardous wastes generated during the operation of HBRP would be minimal, and recycling methods would be used to the extent possible. The remaining hazardous waste would be temporarily stored on-site, per the California Fire Code and Title 22, California Code of Regulations, §66262.10 et seq., and disposed of by licensed hazardous waste collection and disposal companies in accordance with all applicable regulations, per Title 22, California Code of Regulations, §66262.10 et seq. The minimal quantities of hazardous waste generated would not significantly impact the treatment and disposal resources available in California. Furthermore, as in the construction phase, should any operations waste management-related enforcement action be taken or initiated by a regulatory agency, the project owner would be required by proposed Condition of Certification **Waste-4** to notify the CPM whenever the owner becomes aware of this action.

Impact on Existing Waste Disposal Facilities

Nonhazardous Solid Wastes

Section 8.14.2.3.1 and Table 8.14-2 of the AFC list one California Class III and one Oregon facility that will accept nonhazardous solid wastes from the HBRP project. Both landfills have adequate remaining capacity to handle the solid waste that would be generated by the HBRP (PG&E 2006a, Section 8.14.2.3.1). In total, the two listed facilities possess over 40 million cubic yards of remaining capacity. The volume of solid nonhazardous waste from the HBRP requiring off-site disposal would be a small fraction of the existing combined capacity of the available Class III landfills and would not significantly impact the capacity or remaining life of these facilities.

Hazardous Wastes

Section 8.14.2.3.2 of the AFC discusses the three Class I landfills in California: the Buttonwillow Landfill in Kern County, the Clean Harbors Westmoreland Landfill in Imperial County, and the Kettleman Hills Landfill in King's County. The Kettleman Hills facility also accepts Class II and Class III wastes. Hazardous waste disposal for HBRP would be handled by Chemical Waste Management at Kettleman Hills under their current contract with PG&E. Kettleman Hills and Buttonwillow landfills have a combined

excess of 10 million cubic yards of remaining hazardous waste disposal capacity, with up to 33 years of remaining operating lifetimes. The Westmoreland landfill is currently non-operational but on reserve due to lack of need for additional hazardous materials disposal capacity in California (PG&E 2006a Section 8.14.2.3.2). The amount of hazardous waste transported to these landfills has decreased in recent years due to source reduction efforts by generators and the transport of waste out of state that is hazardous under California law, but not federal law. Hazardous waste treatment and disposal capacity in California is more than adequate to accommodate the waste generated by HBRP.

CUMULATIVE IMPACTS AND MITIGATION

As proposed, the quantities of nonhazardous and hazardous wastes generated during construction and operation of the HBRP would add to the total quantities of waste generated in Humboldt County and the State of California. This facility would generate an estimated 4,960 tons of solid waste during construction and approximately 1,040 cubic yards per year during operation. This includes approximately 80 tons of hazardous waste and 9,200 gallons of oil water separator waste per year. Recycling efforts would be prioritized wherever practical, thereby reducing the amounts of waste that actually need disposal in landfills.

In section 8.14.4 of the AFC, the applicant states that handling and management of all HBRP waste would follow the hierarchical approach of source reduction, recycling, treatment, and disposal. The HBRP will be included in the Humboldt County's Waste Reduction Program, which provides a solid waste hauler to collect recyclables regularly and deliver them to recycling facilities. The AFC states that Humboldt County is not currently meeting the state mandated goal of 50% solid waste diversion/recycling. However, there is adequate capacity available in a variety of treatment and disposal facilities that can accept waste generated by HBRP (PG&E, Section 8.14.3). Therefore staff concludes that these added waste quantities generated by HBRP would not result in significant cumulative waste management impacts.

COMPLIANCE WITH LORS

Energy Commission staff concludes that the HBRP would be able to comply with all applicable LORS regulating the management of hazardous and non-hazardous wastes during facility construction and operation. The applicant is required to dispose of hazardous and nonhazardous wastes at facilities approved by the various departments within the California Environmental Protection Agency (Cal-EPA). Because hazardous wastes would be produced during both project construction and operation, the HBRP project would be required to obtain a hazardous waste generator identification number from the California Department of Toxic Substances Control (DTSC). Accordingly, HBRP would be required to properly store, package and label waste, use only approved transporters, prepare hazardous waste manifests, keep detailed records, and appropriately train employees. Pursuant to California Code of Regulations, Title 22, section 67100.1 et seq., a hazardous waste Source Reduction and Evaluation Review and Plan must be prepared by the HBRP.

CONCLUSIONS

Management of the wastes generated during construction and operation of the HBRP project and existing on-site contamination would not result in any significant adverse impacts if the waste management measures proposed in the AFC and the proposed Conditions of Certification are implemented per the pertinent LORS.

If approved, the applicant would prepare separate Waste Management Plans for the construction and operation of the HBRP, which would include a description of each waste stream and the management methods planned for each waste. Proposed condition of certification **Waste-5** ensures that these plans would be submitted to the Compliance Project Manager (CPM) and to applicable local agencies prior to site preparation. Staff believes that the project's compliance with all applicable LORS and the Conditions of Certification proposed by staff would adequately ensure that no significant adverse environmental impacts would result from the management and disposal of project-related waste.

Staff has proposed Conditions of Certification **Waste-1** through **-6** which require that: **1)** the project owner have an experienced Registered Professional Engineer or Geologist available for consultation during soil excavation and grading activities in the event that contaminated soils are encountered; **2)** if potentially contaminated soil is unearthed during excavation at the proposed site, the Registered Professional Engineer or Geologist inspect the site, determine the need for sampling nature, file a written report, and seek guidance from the CPM and the appropriate regulatory agencies; **3)** the project owner obtain a unique hazardous waste generator identification number from the Department of Toxic Substances Control (DTSC) in accordance with DTSC regulatory authority; **4)** the project owner notify the CPM whenever the owner becomes aware of any impending waste management-related enforcement action; **5)** the project owner prepare and submit waste management plans for all wastes generated during construction and operation of the facility and submit them to the CPM and the Humboldt County Department of Environmental Health; and **6)** a radiological survey be prepared and submitted to the CPM prior to the start of construction activities, including a demonstration that any contamination that exceeds regulatory levels has been remediated.

PROPOSED CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall provide the resume of a Registered Professional Engineer or Geologist, who shall be available for consultation during soil excavation and grading activities, to the Compliance Project Manager (CPM) for review and approval. The resume shall show experience in remedial investigation and feasibility studies and in sites that contain radiological wastes. The Registered Professional Engineer or Geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.

Verification: At least thirty (30) days prior to the start of site mobilization the project owner shall submit the resume to the CPM for review and approval.

WASTE-2 If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities as evidenced by discoloration, odor, detection by handheld instruments (including radiation detectors), or other signs, the Registered Professional Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action.

Depending on the nature and extent of contamination, the Registered Professional Engineer or Geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the Registered Professional Engineer or Geologist, significant remediation may be required, the project owner shall contact representatives of the Humboldt County Department of Environmental Health guidance and possible oversight.

Verification: The project owner shall submit any final reports filed by the Registered Professional Engineer or Geologist to the CPM within five (5) days of their receipt. The project owner shall notify the CPM within 24 hours of any orders issued to halt construction.

WASTE-3 The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste during construction and operations.

Verification: The project owner shall keep its copy of the identification number on file at the project site and notify the CPM via the relevant Monthly Compliance Report of its receipt.

WASTE-4 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within ten (10) days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.

WASTE-5 The project owner shall prepare a Construction Waste Management Plan and an Operation Waste Management Plan for all wastes generated during construction and operation of the facility, respectively, and shall submit both plans to the CPM for review and approval. The plans shall contain, at a minimum, the following:

- A description of all waste streams, including projections of frequency, amounts generated and hazard classifications; and
- Methods of managing each waste, including treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation,

disposal requirements and sites, and recycling and waste minimization/reduction plans.

Verification: Not less than thirty (30) days prior to the start of site mobilization, the project owner shall submit the Construction Waste Management Plan to the CPM for approval. The Operation Waste Management Plan shall be submitted to the CPM no less than thirty (30) days prior to the start of project operation for approval. The project owner shall submit any required revisions within twenty (20) days of notification by the CPM. In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year and provide a comparison of the actual methods used to those planned management methods proposed in the original Operation Waste Management Plan.

WASTE-6 At least sixty (60) days prior to any soil disturbance or the beginning of site mobilization, the project owner shall prepare and submit the documents listed below to address radioactive contamination. This information shall be submitted to the Compliance Project Manager (CPM) for review and approval that these documents meet the requirements of this Condition of Certification.

- a) a radiological survey for the HBRP site; and
- b) a demonstration that any contamination that exceeds regulatory levels has been remediated.

Verification: At least sixty (60) days prior to any soils disturbance or the beginning of site mobilization, the project owner shall provide the documents listed above to the CPM for review and approval.

REFERENCES

CH2MHILL 2007a – CH2MHill/D. Davy (tn: 38912). Applicant's Responses to CEC Staff's Data Requests 1 - 57. 1/12/2007. Rec'd 1/12/2007.

CH2MHILL 2007c – CH2MHill/D. Davy (tn: 39225). Applicant's Responses to CEC Staff's Data Requests 58 – 78 and Workshop Queries 1 - 22. 2/13/2007. Rec'd 2/13/2007.

CH2MHILL 2007g – CH2MHill/D. Davy (tn: 40109). Preliminary Phase II Environmental Site Assessment, Humboldt Bay Repowering Project, Eureka, California. Rec'd 4/20/2007.

PG&E 2006a – PG&E/R. Kuga (tn: 38050). Humboldt Bay Repowering Project AFC Vol. 1 & 2, 1 AFC CD and 1 Air Modeling CD. 9/29/2006. Rec'd 9/29/2006.