

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

RESPONSE TO WRITTEN COMMENTS

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

GE-Hitachi Nuclear Energy Americas, LLC
Vallecitos Nuclear Center
6705 Vallecitos Road
Sunol, Alameda County

GE-Hitachi Nuclear Energy Americas (GEH) submitted the following comments regarding the tentative order on July 25, 2008. GEH's comments are in italics, followed by staff's responses in normal typeface. Interested persons should refer to the original letter in Appendix B for the full context of these comments.

Comment 1

Paragraph 1 describes the discharger as "General Electric Hitachi Nuclear Energy Americas, LLC." The legal entity and owner of the facility is "GE-Hitachi Nuclear Energy Americas, LLC."

Response 1

We have revised Finding 1 to reflect the correct name of the Discharger.

Comment 2

Paragraph 3 describes the sanitary wastewater disposal area size as approximately 2 acres of land. GEH requests authorization to dispose of the sanitary wastewater to any of the designated disposal areas identified in Figure 2, Site Map. GEH requests the following changes to paragraph 3, sentence 3:

"The Discharger tests its sanitary effluent for compliance with discharge limitations before disposing of it onsite through a sprinkler irrigation system to about ten acres of land to the disposal areas identified in Figure 2".

Response 2

We have revised Finding 3 as suggested.

Comment 3

Paragraph 4 indicates that the source of industrial water is "once-through non-contact cooling water" from the Nuclear Test Reactor (NTR). Although NTR cooling water is the primary source of industrial water at Vallecitos Nuclear Center (VNC), industrial water is generated from other sources such as equipment chillers, boilers and other industrial processes at the Facility. The industrial water disposal area is described as approximately eight acres of land. GEH requests authorization to dispose of the industrial wastewater to any of the disposal areas identified in Figure 2 and

authorization to use industrial water for landscape watering to other areas onsite. GE requests the following changes to paragraph 4:

Revise sentence one as follows:

The discharger produces about 76,000 liter per day (20,000 gallons per day) of once-through non-contact cooling water primarily from its nuclear test reactor.”

Insert the following after sentence one:

“Industrial water is also generated from other sources such as equipment chillers, boilers, and other industrial processes at the Facility.”

Revise sentence three as follows:

“Waste 002 is stored in one of four 230,000-liter retention basins, pH adjusted if necessary, and tested for compliance with discharge limits prior to onsite disposal through a sprinkler irrigation system to about ten acres of land to the disposal areas identified in Figure 2.”

Insert the following sentence after sentence 3:

“After demonstrating compliance with discharge limitation Waste 002 may also be used for landscape watering to other areas onsite.”

The previous NPDES permit restricted combining sanitary and industrial wastewater. Although the tentative order does not prohibit mixing the wastewater sources, GEH requests additional language to be added to the order authorizing the facility to combine industrial and sanitary wastewater. GEH requests insertion of the following text after paragraph 4:

“Since the Facility does not discharge Waste 001 or Waste 002 offsite, there are no restrictions on combining sanitary and industrial wastewaters provided the facility can demonstrate compliance with the effluent limitation specified in this order”.

Response 3

We have revised Finding 3 to incorporate most of the suggested changes. With respect to the suggested insertion after sentence one, subsequent communications with GEH’s representative indicated that the “other industrial processes” are the waste evaporator, high temperature/pressure loops, and runoff from machine shop and laboratory sinks. The new sentence identifies those sources specifically. Also, the following Prohibition was added:

7. No chemicals may be discharged into any of the laboratory sinks.

Comment 4

Paragraph 15 refers to the definition of nuisance conditions as defined in Section 13050(m)(1) of the California Water Code. Under the Water Code, to be a nuisance, a condition must meet all the requirements of Section 13050 (m), not just (m)(1). GEH requests the following changes:

Change “Section 13050(m)(1) of the California Water Code” to “Section 13050(m) of the California Water Code” in paragraph 15 and in section A. Discharge Prohibitions, paragraph 5.

Response 4

We have revised Finding 15 and Discharge Prohibition A.5 as suggested.

Comment 5

Paragraph 4 (Section A. Discharge Prohibitions) states “There shall be no bypasses of any treatment processes for Waste 001.” If an upset condition in the treatment process occurred, treatment could potentially be bypassed and the waste stored until the treatment process was restored. GEH requests the following changes to Section A.

Insert the following at the end of paragraph 4:

“In the event of a treatment process failure to Waste 001, waste should be stored until treatment can occur or an alternate disposal plan has been approved by the Water Board.”

Paragraph 5:

The reference to “Section 13050(m)(1) of the California Water Code” should be changed to Section 13050(m) of the California Water Code” as discussed above.

Response 5

We have revised Discharge Prohibitions A.4 and A.5 as suggested.

Comment 6

The tentative order contains an effluent limit for nutrients in the form of NO₃ of 45mg/L. Previously, effluent nutrients were limited by the nutrient demand of the vegetation in the irrigated area. GEH finds this approach less restrictive, while continuing to prevent degradation of the ground water. GEH request removal of the NO₃ as an effluent limit from Section B and insertion of the following in the order:

“The facility shall implement a nutrient management plan with ground water monitoring to ensure that the irrigation and subsequent biological processes are protective of the ground water quality.”

Because of the change from the previous order, GEH will need approximately 90 days from adoption of this order to re-evaluate the current nutrient management plan and explore potential pre-treatment options to comply with the new NO₃ limit.

Response 6

We are retaining the NO₃ limit but allowing more time for GEH to comply by extending the effective date of the permit to December 1, 2008, as reflected in Provision 13. The current permit remains in effect until the effective date of this permit. The NO₃ limit is necessary to protect groundwater quality pursuant to Table 3-5 of the Basin Plan. This is particularly important considering there are supply wells down gradient of the irrigation disposal area. Furthermore, there is currently no onsite monitoring well network in place to ensure that GEH's nutrient management plan is effective and that groundwater is not harmed.

Comment 7

Paragraph 1.iii (Provisions) provides limitation on allowing "emergent, marginal and floating vegetation" within the disposal area. If this is intended to prohibit only "water plants" and not prohibiting the normally occurring grasses or other plants deliberately chosen to improve water quality, this would be sufficient. The terms emergent and marginal may have very different meanings depending on context and may need clarification. GEH request the following changes to Section C.

Revise paragraph 1.iii as follows:

"The disposal areas shall be maintained free of all emergent water, marginal and floating vegetation with the exception of normally occurring grasses and other plants, and ..."

Response 7

We have revised Provision C.1.iii as suggested.

Comment 8, Self-Monitoring Program

GEH requests a change in the sampling frequency for the parameter total coliform from every batch discharged to monthly as described in Section 3, Effluent Monitoring.

Response 8

We have changed the sampling frequency for total coliform as requested.

Comment 9, Self-Monitoring Program

The parameter Nitrate (as NO₃) indicates that the sample location is E-001. Paragraph 12 and Section B of the tentative order authorize the use of a weighted average from Waste 001 and Waste 002; therefore the sample location for NO₃ should be changed to include E-002. Suggested, "E-001 & E-002" as in the row for TDS.

Response 9

We have changed the sample location for nitrate as suggested.

Comment 10, Self-Monitoring Program

Paragraph 6 requires the submittal of the annual monitoring report to the Regional Water Board no later than February 1 of each year. GEH requests a submittal date of March 1 of every year to provide a more comprehensive summary of environmental and radiological monitoring. This would change paragraph 6 to start, "The discharger shall submit annual monitoring reports to the Regional Water Board no later than March 1 of each year."

Response 10

We have revised Paragraph 6 of the Self-Monitoring Program as suggested.