HITACHI

Vallecitos

# NRC NTR License Renewal Audit Questions Set 2

## QUESTION 001

Provide a description (and illustration) of the configuration of the site retention basin(s), as referenced in Section 4 of the submitted Environmental Report.

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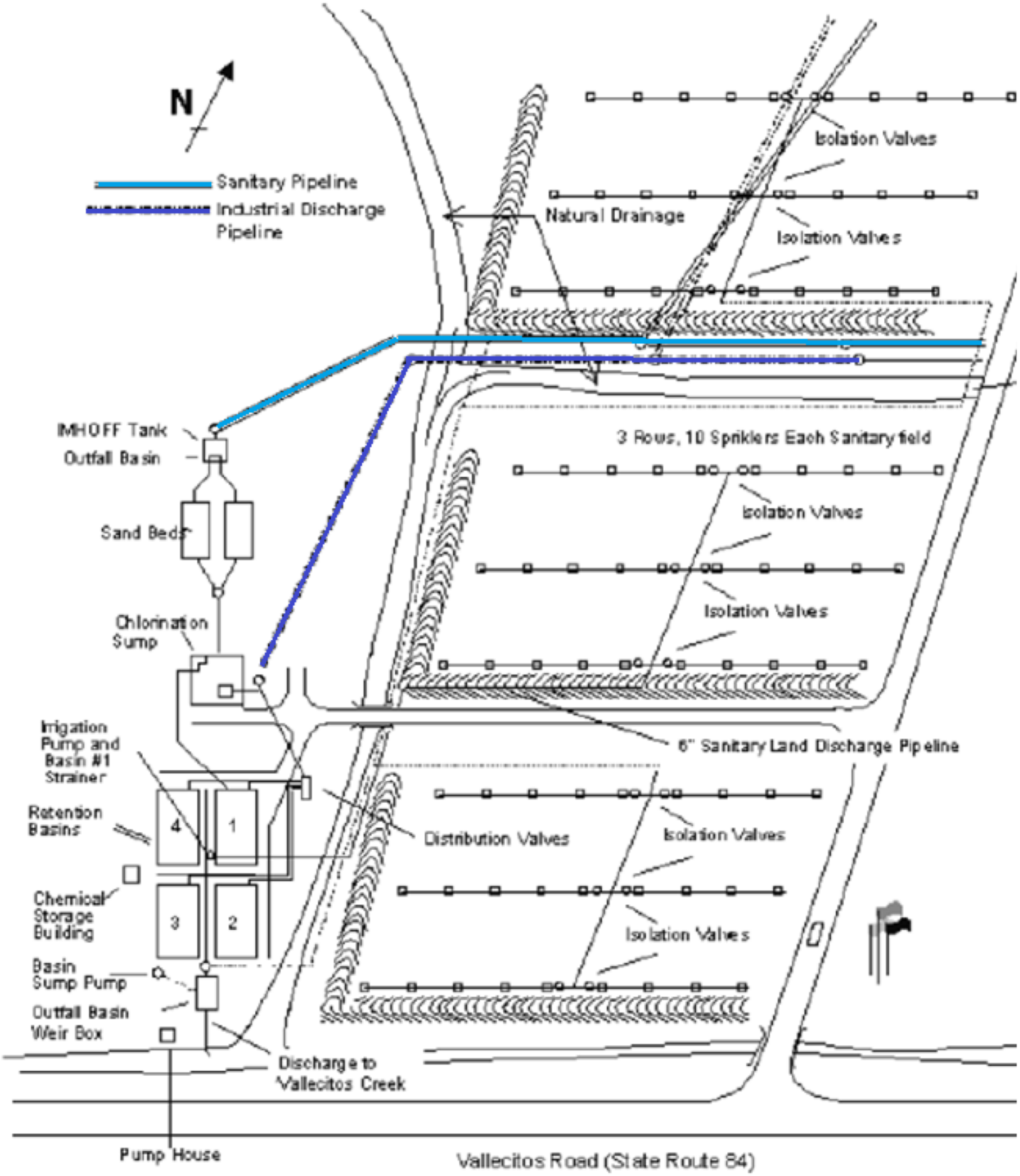
The 2020 VNC Annual Effluent Monitoring Report contains the illustration provided on page 2 of this response and is available in USNRC Adams record keeping system under Accession # ML21060B458. The report has also been uploaded to the GEH / NRC shared reading room. Additional information on the retention basins can be found in the VNC Environmental Monitoring Manual, the most recent version of which has also been provided in the reading room.

Sanitary wastewater is treated in an Imhoff tank, filtered through sand beds, disinfected, and held briefly in one of the retention basins where it is tested for compliance with discharge limits before it is discharged onto GE-VNC's property by sprinkler irrigation.

Industrial wastewater, primarily once-through non-contact cooling water from NTR, the waste evaporator (WEP), machine shops, laboratory equipment, and storm water is drained directly to one of the 60,000-gallon retention basins, where it is pH adjusted, and tested for compliance with discharge limits before it is discharged onto GE-VNC's property by sprinkler irrigation.

# NRC NTR License Renewal Audit Questions Set 2

## QUESTION 001



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## QUESTION 002

Provide a more detailed summary description of monitoring of cooling water and any other effluents discharged to the retention basins referenced in Section 4 of the submitted Environmental Report.

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The VNC Environmental Monitoring Manual has been provided in the reading room. Section 1.3 of the VNC Environmental Monitoring Manual contains the following information:

**1.3 Description of Sampling Locations**

Liquid waste from the various laboratory facilities is divided into two categories: industrial and sanitary. There are four 60,000-gallon retention basins in the system, including the one reserved for sanitary wastewater. All site effluents, other than storm drains, are collected in these basins and analyzed prior to release. Once released from the basins, this water is recycled by way of an on-site sprinkler irrigation system.

There are no radioactive liquid effluents discharged from the facility. Sampling of sources (tanks), effluent streams and the environment are used for confirming control and ensuring no measurable liquid radioactive liquid discharges.

**1.3.1 Station E-001 - Sanitary Wastewater - Basin 1 and 4**

At any point downstream from the disinfection facilities for the sanitary wastewater **(Waste 001)**, where adequate disinfection is assured, and prior to pumping to the designated spray area on site. Sanitary wastewater is discharged through a gravity system to the site sewage treatment facility which consists of an Imhoff tank, sand filters, and a waste treatment plant where it is chlorinated using sodium hypochlorite. Caustic is added to the basin for pH control if necessary and then discharged via a sprinkler system on the southwest quadrant of the site. Basin 4 can be used when there is equipment failure in basin 1 or there is too much water to use only basin 1.

**1.3.2 Station E-002 - Industrial Wastewater - Basin No.'s 2 and 3.**

At any point downstream from the pH adjustment basin for the industrial wastewater/non-contact cooling water system (**Waste 002)**, and prior to pumping from the retention basins to the designated spray area on site. Nonradioactive industrial wastewater, primarily non-contact cooling water, is discharged through a gravity drain system to the site retention basins. Laboratory liquid waste potentially containing radioactive materials is retained in waste tanks in the generating facilities where it is solidified at the generating site or transferred to the liquid waste evaporator (WEP).

**1.3.3 Station E-003 - Storm Water Runoff**

Storm water runoff is defined as any point on the outfall where storm water (**Waste 003)** runs off the site boundary as opposed to seeping into the ground. Waste 003 runs via two main ditches that join together and is discharged to an unnamed ditch tributary to Vallecitos Creek at the southwestern corner of the site.

The Storm Water Pollution Prevention Plan (SWPPP) annual report provides a description of potential sources that may be expected to add significant quantities of pollutants to storm water discharges from VNC.

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## QUESTION 003

Provide a summary of the latest results from the environmental monitoring program including recent monitoring results for surface water, groundwater, and sediment; and a description of the frequency of sampling.

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The 2020 VNC Annual Effluent Monitoring Report contains all of the requested information. This report is available in USNRC Adams record keeping system under Accession # ML21060B458. The report has also been uploaded to the GEH / NRC shared reading room.

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## QUESTION 004

Provide the history of any inadvertent releases of liquid effluents to the environment from the reactor (or statement that no such releases have occurred).

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There have been no inadvertent liquid effluent releases from the NTR.