

GEH Response dated 3/11/16 to NRC Requests for Additional Information dated 3/8/16 regarding Chapter 4 to the SNM 960 Application for License Renewal dated 2/26/16.

Radiation Protection

4.1 Section 4.1 of the application states that the content and implementation of the radiation protection program is reviewed annually pursuant to 10 CFR 20.1101. Describe in detail how the review is conducted, who prepares the review, who reviews it, and what becomes of the recommendations and goals.

Does the RSO prepare the review independently, i.e. without assistance or other staff participating?

GEH Response

For the last few years, the radiation protection program content and implementation review per 10CFR20.1101(c) was prepared under the direction of the VNC site wide Regulatory Compliance organization by an individual other than the VNC Radiation Safety Function leader (RSO). The 2014 review was performed by an outside consultant, in 2015 it was performed by the VNC Regulatory Compliance Function Manager and in 2016 it was performed by the GEH Facility Licensing Manager. The scope of these reviews included the use of checklists based 10CFR20 requirements and reviews of procedures and records used to implement and document the radiation safety program. The Radiation Safety Function leader was an active participant in each of these reviews along with several other members of the VNC staff. A copy of the review report is provided to the Manager, Vallecitos Nuclear Center who has the site wide responsibility for ensuring operational compliance with licenses, regulations and appropriate Company policies. Compliance related findings and areas for improvement are documented and tracked to completion.

4.2 Section 4.2 of the application describes an ALARA Committee and general membership of the committee and issues reviewed. Describe the make-up of the committee, i.e. who chairs the committee, whether senior management is a part of the committee, how often the committee meets and, are the minutes of the meetings reviewed and maintained.

Is there any senior management on the committee?

How often does the committee meet?

Is that the policy for VNC that the chair of the committee is that individual whose program generates the most dose? If so, why? Is there no conflict of interest?

GEH Response

A VNC ALARA Committee provides oversight of VNC facility activities to ensure radiological dose to workers and public is minimized taking into account technological, economic and practical considerations. The Committee, in concert with the Site Manager and the Regulatory Compliance organization establish and trend a site annual exposure goal and are the principal drivers for continued advancement in ALARA performance. The ALARA Committee is a sub-group of a site senior safety council (Vallecitos Technological Safety Council). The ALARA Committee membership consists of an ALARA Chairperson (currently the VNC Radiation Safety Function leader (RSO) and a cross functional group of Area, Project and Operation Managers as well as site technicians. ALARA Committee meetings are held quarterly or as requested by the Committee Chairperson or VNC Management.

4.3 Section 2.2.1.5 states one of the radiation safety function responsibilities is to review the radiation exposures of employees and visitors. Section 2.3 describes the VNC training program for staff. Describe what training is provided for visitors and contractors.

The response, an excerpt from a 2012 Region IV Inspection Report, does not supply the necessary information.

This does not address visitors, except for extended visitors, who are treated as regular employees for training.

Are all visitors treated as regular employees?

Are there no other visitors, besides contractors, to VNC?

How are NRC or CA RP staff treated for training?

GEH Response

Visitors performing work in posted radiologically controlled areas at VNC receive an initial radiological safety orientation followed by additional training commensurate with the work environment and duties. Other visitors not working in radiologically controlled areas such as persons on a guided tour, escorted regulatory personnel, vendor, delivery, and ranching personnel are not required to receive training. Extended visitors including VNC tenants and contract employees permitted to perform work in posted radiation areas receive the same training as employees. Periodic refresher training is provided annually by safety meetings, formal training courses or other means appropriate for specific tasks specified in a radiation work permit. Regulatory personnel including NRC and CA DPH staff with documented outside training receive VNC orientation training and are only tested on VNC emergency response.

4.4 Section 2.3 states that training for each individual at VNC is commensurate with assigned duties. Describe the specific tiers of training for VNC staff, i.e. administrative and monitored employees (to include technicians and engineers). State if there are refresher requirements, whether exams are required, if there are requalification requirements for certain workers, if there is any review of the training program and instructors, and what function is responsible for the training program.

This response is an excerpt from a 2014 Region IV Inspection Report and does not adequately answer the RAI.

Is there only one level of training for all VNC staff?

Are administrative staff trained to the same level as technical staff?

Are there exams associated with the training?

The response provided states refresher training is offered, but does not say it is required. Is refresher training not required?

Does the refresher training include exams?

Does VNC review their own training program? Who does it and how is it documented?

GEH Response

VNC radiation workers receive formal radiation safety training commensurate with the work environment and duties prior to working independently with licensed material. Additional training is provided for specific tasks specified in a radiation work permit (RWP) such as methods to minimize exposure or respiratory protection requirements. Periodic refresher training is provided annually by safety meetings, formal training courses or other means appropriate for specific tasks for each RWP. Non-radiation workers including administrative staff receive an initial radiological safety orientation. Exams are used on a case by case basis to assess knowledge and proficiency of personnel or to demonstrate a basic understanding of radiological safety appropriate to bypass a formal course

requirement. The VNC Radiation Safety Function periodically performs a review of radiological safety training standards for both visitors and workers.

4.6 Section 9.6 states that compliance with NRC 10 CFR 20, Subpart D for radiation dose to individual members of the public is demonstrated by assuring that the off-site annual dose to the maximum exposed individual does not exceed 100 mRem. Provide documentation that demonstrates compliance with dose limits for members of the public.

The response is an excerpt from a 2014 Region IV Inspection Report and does not adequately answer the RAI.

The response provided only addresses dose from effluents. It does not address dose due to materials or the reactor. The requirement is documentation by measurement or calculation.

GEH Response

Current SNM 960 license condition S-6 requires VNC to summarize effluent and environmental monitoring programs in an annual report to NRC. The report summarizing 2015 monitoring results was submitted to NRC on 2/25/16 and demonstrates compliance to dose limits to members of the public from measured releases and environmental gamma radiation.

4.7 Section 4.5.2 states that an access control program has been established to ensure that routine access points to contaminated areas are properly posted and operative. Describe the means of controlling access to an area; how it is allowed or limited. Explain the bases, i.e. training, clearance, etc. and who approves access.

Clarify the answer provided that states access is controlled by RWPs. What does this mean? Are areas controlled by a guard or is access by passkey?

GEH Response

Radiologically controlled areas are locked or in secured areas of the site. Access to radiologically controlled areas is controlled by securing the entry point to prevent unauthorized entry.

4.8 Section 4.5.2 states that an access control program has been established to ensure that routine access points to contaminated areas are properly posted and operative. Describe any processes and/or procedures used for personnel to exit potentially contaminated areas, to include equipment used to detect contamination and any established contamination limits.

Does VNC have any established contamination limits for exit? What processes or procedures does VNC have for the use of hand held or whole body counting equipment?

GEH Response

Personnel contamination monitoring is required by internal procedure at the exit control point of a potentially contaminated area using a personnel contamination monitor (PCM), hand and foot monitor (HFM) or field monitoring instrument. An individual whose skin or personal clothing is found contaminated above background levels or if unable to clear a PCM or HFM is not allowed to exit without prior approval of the radiation safety function.