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SCE&G®
A SCANA COMPANY

March 26, 2014
RC-14-0050

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Dear Sir/Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12
SOUTH CAROLINA ELECTRIC & GAS (SCE&G) RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION ASSOCIATED WITH NEAR-TERM TASK FORCE RECOMMENDATION 2.1, FLOODING REEVALUATION

References:

1. NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012 [ML12053A340]
2. SCE&G to NRC, Flooding Reevaluation Results for Virgil C. Summer Unit 1 dated March 12, 2013 [ML13073A117]
3. Letter from Shawn Williams to Thomas D. Gatlin dated January 30, 2014, Virgil C. Summer Nuclear Station, Unit 1 (VCSNS) - Request for Additional Information (TAC NO. MF1112) [ML14023A740]

On March 12, 2012, the NRC issued Reference 1 to all power reactor licensees and holders of construction permits which are either active or deferred status. Enclosure 2 of Reference 1 contains specific Requested Actions, Requested Information, and Required Responses associated with Recommendation 2.1: Flooding Reevaluation. In response to this request, South Carolina Electric & Gas (SCE&G) provided a Flood Hazard Analysis Reevaluation Report (Reference 2). The NRC Staff reviewed SCE&G's response in Reference 2 and determined that additional information is necessary (Reference 3).

SCE&G, acting for itself and as agent for South Carolina Public Service Authority is submitting this response to request for additional information. SCE&G's response is provided within Enclosure I.

A010
NRR

This letter contains no new regulatory commitments.

Should you have any questions concerning the content of this letter, please contact Bruce L. Thompson at (803) 931-5042.

I declare under penalty of perjury that the foregoing is true and correct.

3-26-14
Executed on

Thomas D. Gatlin

BD/TDG/rp

Enclosure:
I. SCE&G Response to Request for Additional Information
II. Disks containing FLO-2D input files

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VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1

ENCLOSURE I

SCE&G Response to Request for Additional Information

RAI No. 1 - Local Intense Precipitation Flooding

Background: Given the significant role that the FLO-2D model performs in the licensee's analysis of the probable maximum flood (PMF) caused by local intense precipitation and the need to review the formulation of the model's complex spatially and temporally distributed input, the staff requests that the licensee provide FLO-2D input files.

Request: Provide electronic versions of the input files for the FLO-2D model in the Flood Hazard Reevaluation Report (FHRR) related to local intense precipitation analysis. Provide a discussion regarding assumptions associated with functionality of the site drainage system during the event.

SCE&G Response RAI-1:
The requested input files are provided on the enclosed CDs.

In all five simulations, the underground drainage systems were assumed plugged (non-functional). Calculation DC02060-005, Revision 0 is provided in its entirety on the VCSNS Fukushima E-Portal. The below is a summary of information contained in Calculation DC02060-005, Revision 0, beginning page 5 of 34:

"Calculation Overview"
The objective of this calculation is to model the Probable Maximum Precipitation (PMP) event at the V.C. Summer Nuclear Generating Station Unit 1 in Jenkinsville, South Carolina. The FLO-2D PRO Program was used to calculate the maximum water surface elevation onsite due to the PMP. Multiple simulations were run in FLO-2D to represent different storm conditions. In Simulation 1, the PMP 1 hour rainfall was run for 24 hours, (1 hour of rain and 23 hours of drainage) to allow the FLO-2D program to calculate maximum water levels in the Service Water Pond (SWP). Water levels were reduced by overland flow only. In Simulation 2, the current license basis PMP 6 hour rainfall was run for 24 hours, (6 hours of rain and 18 hours of drainage) to allow the FLO-2D program to calculate maximum water levels in the SWP. Water levels were reduced by overland flow only (underground storm drainage system assumed to be plugged). Simulation 3 assumed overland flow only, 1 hour PMP, and included additional proposed channels to more quickly drain the site with the goal of reducing maximum flooding elevation. Simulation 3 was modeled for 24 hours (1 hour of rain, 23 hours to drain). Simulation 4 assumed overland flow only, 1 hour PMP, and included proposed construction and demolition associated with the Independent Spent Fuel Storage Installation (ISFSI) design. Simulation 4 was modeled for 24 hours (1 hour of rain, 23 hours to drain). Simulation 5 added extra buildings to Simulation 4 to simulate the effect of future construction onsite.

RAI No.2 - Local Intense Precipitation Flooding

Background: Given the significant role that elevation data is in defining slopes and flow paths, the staff requests that the licensee provide a description of the methods used to incorporate elevation measurements into the FLO-2D analyses.

Request: Provide a description of the methods used to incorporate elevation measurements and the likely magnitude of the errors associated with these elevations.

SCE&G Response RAI-2
Calculation DC02060-005, Revision 0 is provided in its entirety on the VCSNS Fukushima E-Portal. The below is a summary of information contained in Calculation DC02060-005, Revision 0, beginning page 5 of 34:

"Elevation Model Creation Process"
An aerial survey of the VC Summer Unit 1 plant area was performed by GeoData Corp for Glenn Associates (surveyor). The color aerial photography was taken at a nominal scale of 1 inch = 166 feet using a Wild RC-30 aerial camera and compiled by standard photogrammetric means using a Datum Evolution softcopy system. The data was compiled at 1 inch = 166 feet at a 0.5 ft contour interval. The surveyor provided a CAD deliverable, (see Reference 1 of Calculation DC02060-005, Revision 0), which consisted of elevation points spaced on a 10 by 10 grid with break lines. Reference 1 in Calculation DC02060-005, Revision 0 was submitted in the V.C. Summer Plant horizontal and vertical data which are the State Plane Coordinate System of South Carolina North American Datum of 1927 (NAD27) horizontal datum and the National Geodetic Vertical Datum of 1929 (NGVD29). Elevation point information was removed from the file in building areas and along the rock levees. This drawing served as the basis for bare-earth elevations that were input into the Grid Developer System [GDS] model.

Before importing into GDS, the bare-earth elevations were imported into Global Mapper. Break lines were converted to points while maintaining elevation data from the original file. A triangulated grid connecting all the points, a Digital Terrain Model (DTM), was created within Global Mapper. This file was saved and is referred to as the bare-earth plant DTM.

Glenn Associates also prepared an AutoCAD drawing of the building roofs at the V.C. Summer Plant. The drawing contained lines that outlined each roof. Also included in the file were elevation shots within the roof outlines, generally spaced in a 10 feet x 10 feet grid pattern. These were brought into Global Mapper separately in the plant coordinate system. Points were created from 3D lines and the elevation data from the original CAD drawing was preserved. The created 3D points (from roof outline) and the grid points within each roof area were exported as a simple ASCII text file (.xyz) to add roof data to the bare-earth DTM model.

After initial simulations, the FLO-2D model was extended beyond the limits of the survey from Glenn Associates to better simulate site flooding. Additional high resolution (1/9 arc-second) elevation data from the U.S. Geological Survey (USGS), Earth Resources Observation and Science Center was downloaded. The Digital Elevation Model (DEM) datasets for portions of Fairfield County in South Carolina were entitled "46101272.bil" and "73595868.bil" (Reference 3 in Calculation DC02060-005, Revision 0). This data was recorded in the State Plane Coordinate System of South Carolina, NAD83 horizontal datum and NAVD88 vertical datum. It consists of 3-meter or better point spacing from various sources. The data was imported into a

separate file in Global Mapper and converted from NAD83 to NAD27 to match plant datum. The National Geodetic Survey calculates a vertical difference of +0.869 feet when converting from NAVD88 to NGVD29 at a point in the general center of the site. Therefore, a global shift of +0.869 feet was applied to the entire elevation dataset to shift the data from the NAVD88 vertical datum to the NGVD29 vertical datum. Global Mapper was used to create points from the DEM at a 10 feet by 10 feet spacing. The point elevation data was retained from the DEM.

The extended points from USGS, building roof, and the bare-earth elevation data were opened and combined in Global Mapper and an elevation grid was created. The combined elevation grid was broken back into points on 3ft spacing and exported as a simple ASCII text file. This file was then scrubbed of erroneous elevation points such as -99999.99, below 200 feet and above 602 feet, which, by inspection, were out of the elevation range of the area of study. The resultant simple ASCII file was renamed to an ASCII PTS file (points) and imported into FLO-2D PRO GDS as the project elevation file.

Within the limits of the new topographical survey (plant proper including SWP embankments), the expected accuracy of elevation data values is one-half contour interval or 0.25 ft averaged within each 10 ft x 10 ft grid. Outside the new survey limits the area was modeled with DEM datasets for portions of Fairfield County in South Carolina. The files are named "46101272.bil" and "73595868.bil". Those files were created from source data: Sixteen-County Area of South Carolina, 2008, 1/9-Arc Second National Elevation Dataset, a .bil file is the DEM data rounded up or down to the nearest meter. The original metadata for the .bil have a vertical accuracy of 0.22m. The data are then translated and averaged to a 10 ft x10 ft grid single elevation. The starting water surface elevations were set equal to exact values.

Errors resulting from vertical data are expected to be insignificant since the area modeled by .bil files represents a small percentage of the total drainage area. The tributary area to Monticello Reservoir upland of the water surface is a fraction of the water surface area of the reservoir. Additionally, conservative assumptions are used in the calculation including the starting elevation of the reservoir set at the maximum operating level as controlled by the Fairfield Pumped Storage Facility, and that no water is released from the reservoir during the model run duration.

RAI No.3 - Streams and Rivers Flooding

Background: Given the significant role that Frees Creek/Monticello Reservoir plays in the licensee's analysis of the PMF from rivers and streams and the need to review the formulation of the model's complex spatially and temporally distributed input, the staff requests that the licensee provide a detailed description of the analysis it completed to support its conclusions.

Request: Provide detailed information and model inputs, if applicable, to support the conclusion in the FHRR related to the estimation of flooding due to the PMF event on Frees Creek/Monticello Reservoir (including wind and wave effects).

SCE&G Response RAI-3
Calculation DC-02060-007, Revision 0 and Calculation DC02060-008, Revision 0 are provided in their entirety on the VCSNS Fukushima E-Portal. Below is a summary of information contained within Calculation DC-02060-007, Revision 0 and Calculation DC02060-008, Revision 0.

Calculation DC-02060-007, Revision 0, determined the PMF depth from the guidelines outlined in Section 4.4.3.3 of HMR 52 (Reference 2 of Calculation DC-02060-007, Revision 0) and Figures 18 through 27 of HMR 51 (Reference 3 of Calculation DC-02060-007, Revision 0). The tributary area (Figure 1 on page 6 of 16) to Frees Creek/Monticello Reservoir consists of a 16.5016-mi^2 drainage area. The PMP to be used in PMF calculation was determined to be the 72-hour PMP for the Monticello Reservoir watershed and equal to 47.7 inches (page 4 of 16).

Calculation DC02060-008, Revision 0, determined the PMF water levels in Monticello Reservoir. Model input and starting conditions used were:

- Starting water level was assumed to be 425.0 ft (maximum operating level controlled by Fairfield Pumped Storage Facility) (page 6 of 27).
- No discharge from reservoir during model run duration therefore no reservoir routing required (page 6 of 27).
- 72-hour PMP applied to tributary area. Upland tributary area runoff factored by NRCS TR-55 Curve Numbers conservatively selected. Total PMP = 47.7 inches. Factored runoff = 46.73 inches (page 6 of 27).
- Resulting still water surface elevation determined to be 431.37 ft (page 7 of 27).
- Wind effective fetch length determined to be 15,579 feet (2.95 miles) (page 8 of 27).
- Alternative I, Section 9.2.1.1 of ANSI/ANS-2.8-1992, Figure 3, the annual, extreme-mile, 2-year wind speed at Monticello Reservoir is 50 mph with average duration of 72 seconds (pages 9-10 of 27).
- Wave heights, spectral periods, runup, and setup determined by using methodology in EM 1110-2-1100 (pages 11-19 of 27).
- The PMF elevation for Monticello Reservoir at the North Berm was determined to be 437.00 feet (page 18 of 27).
- The PMF elevation for Monticello Reservoir at the North Dam (SWP) was determined to be 434.77 feet (page 19 of 27).

RAI No.4 - Streams and Rivers Flooding

Background: Given the control of the Service Water Pond (SWP) pool elevation by the operation of the isolation valve on the interconnecting pipe between the SWP and Monticello Reservoir, the staff requests that the licensee provide a detailed description of conditions leading to the valve's operation, frequency of operation, and any assumptions related to the state of the isolation valve used in the reevaluation of the PMF for the SWP.

Request: Provide a detailed description of conditions leading to the operation of the valve, frequency of operation, any assumptions related to the state of the isolation valve used in the reevaluation of the PMF for the SWP. Describe whether the conclusions made in the FHRR are affected by the assumptions about the state of the valve.

SCE&G Response RAI-4
The SWP to Monticello reservoir interconnecting pipe is normally isolated by Valve XVB00832-CW. XVB00832-CW is operated as directed by Operations when low-water or high temperature conditions exist in the SWP. Due to chemicals present in the SWP the valve is not operated when the SWP level is greater than the water level in Monticello Reservoir. System Operating Procedure (SOP) 207 Section H "Infrequent Operations" provides a detailed summary of steps required to open the valve. The VCSNS Control Room verifies levels in SWP and Monticello reservoir and allows opening of the cross-connect valve.

XVB00832-CW is normally locked closed locally at the valve hand-wheel and the electrical breaker feed at the Motor Control Center is locked open to prevent operation. Security Controls these locks per site procedure, General Maintenance Procedure (GMP) GMP-101.002, and opens at request of Operations when performing the applicable steps of SOP-207. Security is required to man the valve location continuously while the valve is open and locks on breaker are not in place. Due to security requirement, the valves are normally closed prior to shift changes.

XVB00832-CW is not operated on a set periodicity; the valve is operated very infrequently and as previously noted is only operated due to low-water or high temperature conditions in the SWP. Water level in the SWP is maintained by normal precipitation. For reference regarding frequency of valve operation, VCSNS OPS Autolog archives was retrieved from January 2010 thru March 10, 2014 and filtered by "SOP-207" and a separate filtering for "Pond". The results of the database retrieval determined that there were four different SW Pond filling evolutions. The filling evolutions sometimes extended over multiple days, with the valve being open for several hours at a single time and then closed prior to shift turnover. In total, from review of the described database retrieval, the valve opened/closed 26 times as part of the four separate filling evolutions.

The FHRR assumed the valve was closed during all applicable flooding events. Conclusions made in the FHRR are not affected by the assumptions about the state of XVB00832.

RAI No. 5 - Streams and Rivers Flooding

Background: Given the significant role that the SWP has in the licensee's analysis of the PMF from rivers and streams and the need to review the formulation of the model's complex spatially and temporally distributed input, the staff requests that the licensee provide a detailed description of the analysis it completed to support its conclusions.

Request: Provide detailed information and model inputs, if applicable, to support the conclusion in the FHRR related to the estimation of flooding due to the PMP (including wind effects) event on the SWP.

SCE&G Response RAI-5
Calculation DC02060-005, Revision 0 and Calculation DC02060-008, Revision 0 are provided in their entirety on the VCSNS Fukushima E-Portal. Below is a summary of information contained within Calculation DC02060-005, Revision 0 and Calculation DC02060-008, Revision 0.

Calculation DC02060-005, Revision 0, determined the water levels in the SWP resulting from the PMP on the site plus the SWP area. Model input and starting conditions used were:

- Starting water level was assumed to be 422.0 ft per Figure 15 (page 19 of 34).
- No discharge from SWP during model run duration therefore no reservoir routing required (Calculation DC02060-008, page 6 of 27).
- One-hour PMP and 72-hour PMP (licensing basis) were applied to tributary area in separate Simulation runs. Upland tributary areas runoff factored by Rational coefficients conservatively selected. Total 1 hr PMP = 19.0 inches, 72-hour PMP = 29.83 inches (page 13 of 34).
- Resulting still water surface elevations determined to be (page 17 of 34).

Table 1 - FLO-2D Maximum Water Surface Elevation Results

Simulation	Flood Routing Type	Max WSE @ Power Block		SWP WSE
1	Base case, 1 Hour PMP	437.5 ft. West side	436.6 ft. East side	426.3 ft
2	6 Hour CLB PMP	437.4 ft. West side	436.5 ft. East side	430.2 ft

Calculation DC02060-008, Revision 0, determined the water levels in the SWP resulting from the PMP on the site plus the SWP area including wind generated waves, setup, and runup. Model input and starting conditions used were:

- The FLO-2D simulation results show the SWP maximum water surface elevation will be 426.5 feet (NGVD 29) from the 1 hour PMP (page 19 of 27).
- Wind effective fetch length determined to be 1,288 feet (0.24 miles) (page 19 of 27).
- Alternative I, Section 9.2.1.1 of ANSI/ANS-2.8-1992, Figure 3, the annual, extreme-mile, 2-year wind speed at Monticello Reservoir is 80 mph with average duration of 1800 seconds (pages 9-10 of 27).
- Wave heights, spectral periods, runup, and setup determined by using methodology in EM 1110-2-1100 (pages 21-27 of 27).
- The PMF elevation for SWP at the West Embankment was determined to be 428.30 feet (page 27 of 27).

RAI No.6 - Hazard Input for the Integrated Assessment

Background: The March 12, 2012, 50.54(f) letter, Enclosure 2, requests the licensee to perform an integrated assessment of the plant's response to the reevaluated hazard if the reevaluated flood hazard is not bounded by the current design basis.

Request: The licensee is requested to provide the applicable flood event duration parameters (see definition and Figure 6 of the Guidance for Performing an Integrated Assessment, JLD-ISG-2012-05) associated with mechanisms that trigger an Integrated Assessment. This includes (as applicable) the warning time the site will have to prepare for the event, the period of time the site is inundated, and the period of time necessary for water to recede off the site for the mechanisms that are not bounded by the current design basis. The licensee is also requested to provide a basis for the flood event duration parameters. The basis for warning time may include information from relevant

forecasting methods (e.g., products from local, regional, or national weather forecasting centers).

SCE&G Response RAI-6
Calculation DC02060-005 is provided in its entirety on the VCSNS Fukushima E-Portal. The below is a summary of information contained in Calculation DC02060-005, Revision 0.

Period of Site Inundation:
Calculation DC02060-005 includes graphs that show water surface elevation (WSE) versus time for Power Block West, Power Block East, and the SWP. At the Power Block West area, which is the area where runoff is most impeded, the majority of ponded water drains from the site by the 6th or 7th hour into the 24 hour simulation. The rising limb is steep since the 1 hour PMP occurs in the first hour. The last 0.1 ft of ponding reaches the starting elevation between hours 12 through 24. Drainage continues reaching the starting elevation at 24 hours (Figure 13, page 17 of 34).

Realistically, the underground stormwater drainage will be at least partially functional and the final 0.1 to 0.3 ft of ponding will be quickly drained from the site within 12 to 14 hours of the start of the storm.

Warning Time:
The local intense precipitation (LIP) event is the only flood hazard event at VCSNS which requires any response actions. Operations Administrative Procedure (OAP) 109.1 "Guideline for Severe Weather" is an operations procedure that is used to provide response to severe weather conditions, including the LIP. OAP-109.1 is provided in its entirety on the VCSNS Fukushima E-Portal. OAP-109.1 Section 6.5 "Heavy Rainfall Guideline" details response actions for the LIP event; per procedure the response actions are initiated at the direction of the Shift Supervisor and/or Control Room Supervisor. OAP-100.4 "Communication" Section 12 "Shift Engineer's Communication" requires the Shift Engineer to check and forecast out approximately 24 hours for weather instabilities that could affect power distribution capabilities or impact decision to remove safety related equipment from service.

As referenced in OAP-109.1 VCSNS utilizes ImpactWeather.com to monitor weather forecasts and potential weather instabilities. Additionally, VCSNS has a service contract with ImpactWeather.com to provide warning for severe weather conditions. One of the contracted warnings is "Area Flood Watch – issued for when conditions are favorable for meteorological, soil, and/or hydrologic conditions to lead to flooding within 48 hours". If flooding is predicted at VCSNS, the following actions are initiated to provide warning to VCSNS Control Room Staff:

1. an alpha numerical text message is sent to a pager located in Control Room; a pager controlled by security receives the same text message
2. an email message is automatically printed on both printers in 463 ft. elevation of Control Building
3. an automated system sends a voice message to standard Bell telephone line in Control Room

In conclusion, the warning time the site is expected to have to prepare for LIP event is in excess of 24 hours.

RAI No. 7 - Hazard Input for the Integrated Assessment

Background: The March 12, 2012, 50.54(f) letter, Enclosure 2, requests the licensee to perform an integrated assessment of the plant's response to the reevaluated hazard if the reevaluated flood hazard is not bounded by the current design basis.

Request: The licensee is requested to provide the flood height and associated effects (as defined in Section 9 of JLD-ISG-2012-05) that are not described in the flood hazard reevaluation report for mechanisms that trigger an Integrated Assessment. This includes the following quantified information for each mechanism (as applicable):

- **Debris impacts,**
- **Effects caused by sediment deposition and erosion (e.g., flow velocities, scour),**
- **Concurrent site conditions, including adverse weather, and**
- **Groundwater ingress**

SCE&G Response RAI-7

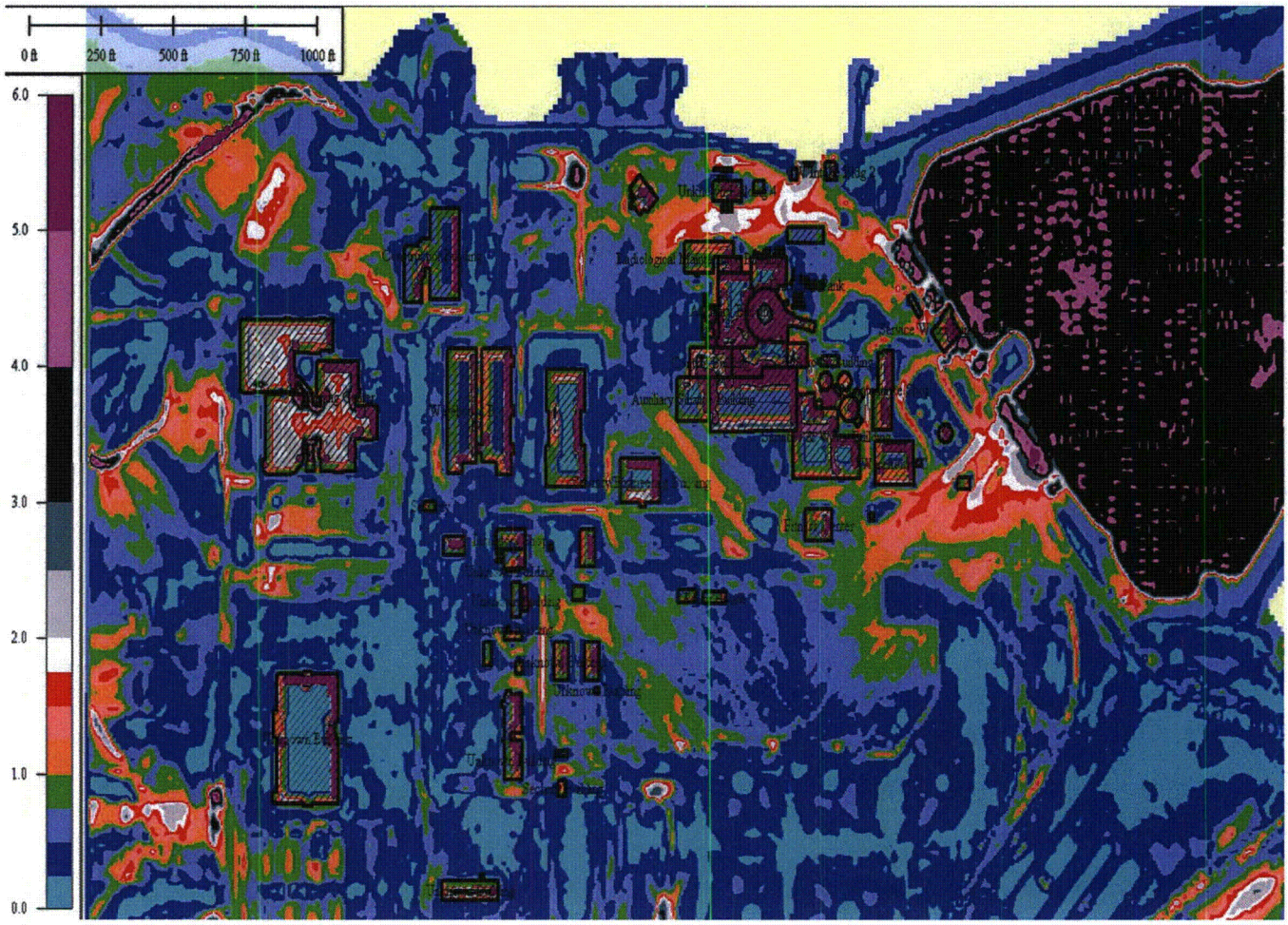
- Debris impacts:

  No flooding enters the site from external/upstream tributary areas; the site flooding occurs solely as the result of LIP. Therefore, the only potential debris will be from unsecured materials on the plant site. Normal housekeeping practices minimize the amount of materials/debris that can be moved by LIP runoff. Also, flow velocities on site are very low (see discussion below) and it is not practical to assume any debris could adversely impact plant flood protection features.

- Effects caused by sediment deposition and erosion (e.g., flow velocities, scour):

  The site grades are minimal, resulting in stormwater runoff velocities in the subcritical range. Minor, insignificant erosion/sedimentation is expected. The majority of LIP runoff flows into the SWP. The 6.70 feet of physical margin existing in the SWP is sufficient to accommodate any expected sedimentation (Calculation DC02060-008, page 27 of 27).

  Maximum flow velocities were reviewed and found to be less than 2 fps for about 97% of the yard areas. The only areas where velocities exceed 2 fps are in portions of the flow path north of the power block and at the southeast of the main plant just before the runoff enters the SWP. Velocities are higher where the runoff flows down the west embankment slope. That slope is protected by riprap. See attached figure, velocity color legend on left.



Notes: Velocity (ft/sec) is shown in the color legend on left
High velocities on or near buildings represent flow off the buildings.

- Concurrent site conditions, including adverse weather:

  PMP/LIP is not associated with antecedent or concurrent events that would impact implementation of preventive measures.

- Groundwater ingress:

  Only the LIP precipitation event is applicable at VCSNS. The duration of the event is only approximately 12 hours. The groundwater ingress due to LIP event is not expected to appreciably increase during LIP event. Due to large fluid storage volumes in plant basements, no impact on Safety Related SSCs is expected due to groundwater ingress.

References:

1. NRC Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," March 12, 2012 [ML12053A340]

2. NRC Japan Lessons-Learned Project Directorate, JLD-ISG-2012-05, "Guidance for Performing the Integrated Assessment for External Flooding," Revision 0, November 30, 2012 [ML12311A214]

3. NRC Letter, D.L. Skeen (NRC) to J.E. Pollock (NEI), "Trigger Conditions for Performing an Integrated Assessment and Due Date for Response," December 3, 2012 [ML12326A912]

4. SCE&G to NRC, Flooding Reevaluation Results for Virgil C. Summer Unit 1 dated
   a. March 12, 2013 [ML13073A117]

5. Calculation DC02060-005, Revision 0, Stormwater Runoff from Fukushima NTTF Recommendation 2.1 PMP Event on Plant Site and Service Water Pond for Unit 1 dated April 29, 2013.

6. Calculation DC02060-007, Revision 0, Estimation of Fukushima NTTF Recommendation 2.1 Probable Maximum Precipitation (PMP) for Monticello Reservoir for Unit 1 dated April 29, 2013.

7. Calculation DC02060-008, Revision 0, Est of Fukushima NTTF Recommendation 2.1 Probable Max Flood (PMF) Elev for Monticello Reservoir & the SWP for Unit 1 dated April 29, 2013.

8. GMP-101.002 " Identification, Restoration or Modification Control of Security Barriers" Revision 6 Change A

9. Operations Administrative Procedure OAP -100.4 "Communication" Revision 2

10. Operations Administrative Procedure OAP-109.1 "Guideline for Severe Weather" Revision 3, Attachment I

11. System Operating Procedure SOP-207 "Circulating Water" Revision 22 Section IV. H.

12. Letter from Shawn Williams to Thomas D. Gatlin dated January 30, 2014, Virgil C. Summer Nuclear Station, Unit 1 (VCSNS) - Request for Additional Information (TAC NO. MF1112) [ML14023A740]