

Q-SDD-F-00006**S&M Inspection Report for Building 221-1F, A-Line****February 8, 2022**

The purpose of this report is to document the S&M Inspection performed 1/27/2022 on the A-Line, Building 221-1F and address any repairs/actions that may be required. The guidelines and requirements for this inspection were based on the following document:

1. G-SMPL-F-00006, Rev. 1, dated 08/30/2016, "Surveillance and Maintenance (S&M) Plan Building 221-1F, A-Line"

On Thursday, January 27, 2022, EC&ACP Engineering and EC&ACP D&D Area Project Integration performed a walkdown of the A-Line, Building 221-1F to examine the reinforced concrete building, all of the equipment and systems within the fenced area immediately surrounding the building (excluding services that pass over A-Line roof), and the portion of the high line up to the gaps (inside the fence line) established for the mechanical and electrical isolations. Results of the walkdown are shown in Photos 1-12. **Note:** See G-SMPL-F-00006, Rev. 1 for layout of Zones and Room numbers used in the Photo descriptions.



Photo 01: This image shows the general condition of the first floor in Zone 5.0, Room 100. Moisture can be seen on the floor as well as staining patterns from previous moisture collection. Due to the humid conditions and lack of ventilation; peeling paint was found throughout the area. The hinges surrounding the plate on the floor show corrosion. There appears to be no additional deterioration since the previous S&M Inspection in 2020.

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Photo 02: This image shows the general condition of the Denitrator Reactors located on the first floor in Zone 5.0, Room 104. There appears to be no change since the previous S&M Inspection in 2020.



Photo 03: This image shows the decontamination sink on the left and the rinse sink on the right on the first floor in Zone 5.1.2, Room 103. The photo shows an upheaval of the slab on grade concrete beneath them. There appears to be no additional upheaval since the previous S&M Inspection in 2020. This is not a structural or a personnel safety concern since it is a slab on grade and the area is protected by a rope barricade with warning signs. The C1-7 Oxide Dissolver Tank located right of the sinks shows yellow cake residue. Residue has not increased since the previous S&M Inspection in 2020.

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Photo 04: The above photo shows the typical condition of the concrete floor on the second floor in Zone 5.2.2, Room 208. There is moisture on the floor with the source appearing to be from the doorway. The moisture has caused staining on the floor. There appears to be no additional staining or degradation of the concrete since the previous S&M Inspection in 2020.



Photo 05: The photo above is a typical example of the deterioration of the paint coating around the pipes and the paint on the ceilings on the first floor.

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Photo 06: The photo above shows the exit doors on the north end of the second floor of A-Line. The tape around the door edges is secure and the “No Exit” signs are clearly posted.



Photo 07: The photo above shows the general condition in Room 206, Zone 5.2.1. It shows an example of the amount of mold present on the walls and floor. The window could have been the source of the moisture causing the mold. There appears to be no additional mold growth in the area since the previous S&M Inspection in 2020.

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Photo 08: The photo above shows the condition of the ceiling in Room 206, Zone 5.2.1. The hanging wires were discovered during the 2020 S&M Inspection. There appears to be no additional deterioration of the ceiling since the previous S&M Inspection in 2020.



Photo 09: The photos above show the area behind the control panel in Room 207, Zone 5.2.1 (Control Room) and the extent of the peeling paint in that area. This condition is judged to be non-structural in nature.

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Photo 10: The above photo shows the general condition of the concrete and peeling paint on the third floor of A-Line in Room 302, Zone 5.3.2.



Photo 11: This photo shows a view of the acid spill on the third floor in the area of the Venturi Scrubber, F-1-1 (Room 302, Zone 5.3.2). The area is protected by a rope barricade with warning signs. There appears to be no additional degradation since the previous S&M Inspection in 2020.

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Photo 12: The above photo shows a typical example of the deterioration on the coating for fixed contamination on the third floor in Room 302, Zone 5.3.2. The deterioration does not appear to have worsened since the previous S&M Inspection in 2020.

Summary

Photos 1-12 show the general condition and typical examples of deterioration found throughout Building 221-1F, A-Line. The photos show signs of further deterioration, but not a significant increase to the extent that collapse is imminent. No further action is required until the next S&M Annual Inspection in 2022. The next joint inspection between EC&ACP Engineering and Structural-Mechanics should take place in 2023, five years from the previous joint inspection in 2018, in accordance with the activity table on page 9 of 32 in G-SMPL-F-00006, Rev. 1.