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RESPONSE TO CEC STAFF DATA REQUEST SET 1 (1-47)

Martin Backup Generating Facility (22-SPPE-03)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION
SUBMITTED BY: **Martin Avenue Properties LLC**

March 17, 2023



INTRODUCTION

Attached are Martin Properties' responses to California Energy Commission (CEC) Staff Data Request Set No. 1 (1-47) for the Martin Backup Generation Facility (MBGF) Application for Small Power Plant Exemption (SPPE) (22-SPPE-03). Staff issued Data Request Set No. 1 on February 10, 2022.

The Data Responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as Staff presented them and are keyed to the Data Request numbers (1-47). Additional tables, figures, or documents submitted in response to a data request (e.g., supporting data, stand-alone documents such as plans, folding graphics, etc.) are found in Attachments at the end of the document and labeled with the Data Request Number for ease of reference.

For context, the text of the Background and Data Request precede each Data Response.

GENERAL OBJECTIONS

Martin Properties objects to all data requests that require analysis beyond which is necessary to comply with the California Environmental Quality Act (CEQA) or which require Martin Properties to provide data that is in the control of third parties and not reasonably available to Martin Properties. Notwithstanding this objection, Martin Properties has worked diligently to provide these responses swiftly to allow the CEC Staff to prepare the Draft Environmental Impact Report (DEIR).

AIR QUALITY AND GREENHOUSE GAS EMISSIONS

BACKGROUND: Air Quality Management District Application

The proposed project would require a permit from the Bay Area Air Quality Management District (BAAQMD). For purposes of inter-agency consistency, staff needs copies of all correspondence between Martin Avenue Properties LLC (applicant) and the BAAQMD in a timely manner to stay up to date on any issues that arise prior to completion of the environmental document.

DATA REQUESTS

1. Please provide copies of all substantive correspondence between the applicant and BAAQMD regarding the project, including application and e-mails, within one week of submittal or receipt. This request is in effect until staff publishes the environmental document.

RESPONSE TO DATA REQUEST 1

There has been no correspondence with the BAAQMD regarding the project. If there is future correspondence with the BAAQMD regarding the project during the SPPE Process, Martin Properties will docket it.

2. Please identify the current schedule for the BAAQMD permit application submittal. Please submit a copy of that application to the docket when it is submitted to BAAQMD.

RESPONSE TO DATA REQUEST 2

Martin Properties will not likely file a permit application for the emergency generators with the BAAQMD until after the CEC has concluded the SPPE process.

BACKGROUND: Contiguous or Adjacent Sources

The project site at 651 Martin Avenue would be near or adjacent to other recent similar data center projects reviewed by the CEC, including the CyrusOne Sequoia Data Center (2600 De La Cruz Blvd.). BAAQMD Regulation 1-215 defines a facility as any property, real or personal, which may incorporate one or more plants all being operated or maintained by a person as part of an identifiable business on contiguous or adjacent property. Please provide information clarifying whether this project would be under common control with any adjacent properties.

DATA REQUEST

3. Please identify the ownership interests of the applicant, Martin Avenue Properties LLC. If there is a common parent company for the proposed project and any adjacent property, please describe whether the BAAQMD could be expected to incorporate the proposed project with another permitted facility.

RESPONSE TO DATA REQUEST 3

Martin Avenue Properties LLC is wholly owned by Vantage Data Centers or its affiliates. There is no common ownership with the CyrusOne Sequoia Data Center or any other property that is adjacent to the MBGF that would also require a BAAQMD permit.

BACKGROUND: Emissions Impact of Project Phasing

One of the Project Objectives (SPPE application p. 1-2) is to allow construction of two phases of the data center. CEC staff is concerned that air quality impacts during Phase II of construction (SPPE application p. 2-17) could overlap with the emissions and impacts of operating the proposed stationary sources (backup generators) installed with Phase I.

DATA REQUEST

4. Please describe and analyze the air pollutant emissions increases and ambient air quality impacts that could occur during simultaneous operation of Phase I sources and construction activity for Phase II.

RESPONSE TO DATA REQUEST 4

As described in Section 2.3.4 of the SPPE Application,

Demolition, grading, excavation and construction will take place in two phases. Phase I will include demolition of the existing building and infrastructure that cannot be reused; grading of the entire site; installation of utility services including interim power and construction of the on-site substation; and construction of the shell of the building and some of the interior rooms necessary to meet tenant schedules. Phase II will include construction of the remainder of the interior rooms and components of the building as the building is leased to tenants.

Phase II construction would primarily involve fitting out the interior of rooms and therefore air emissions would be negligible. Unlike projects where the Phase II construction included another complete building, there is no potential for significant emissions during fitting out the interior of rooms that would warrant separately modeling the testing of emergency generators installed to serve rooms fitted out during Phase I.

BACKGROUND: Air Quality Technical Report Missing Information

In Appendix B of the SPPE application for the Martin Backup Generating Facility (MBGF), the applicant attached a stand-alone Air Quality and Greenhouse Gas Technical Report (11/8/2022; TN# 247329). The Air Quality Technical Report was submitted to the docket without sufficient supporting information. The manufacturer specifications for the proposed sources appear to be missing from Appendix B of the Air Quality Technical Report. Additionally, the applicant's analysis of NO2 background concentrations, as these are used in the dispersion modeling analysis, appears to be missing from Appendix C of the Air Quality Technical Report.

DATA REQUESTS

5. Please provide the manufacturer specification sheets for the proposed backup generator engines and air pollution control devices.

RESPONSE TO DATA REQUEST 5

The manufacturer specification sheets have been included in the electronic files requested by Data Request 6.

6. Please provide electronic files and data supporting the analysis of background NO2 concentrations and how seasonal hour-of-day data are derived.

RESPONSE TO DATA REQUEST 6

Emily Weissinger with Ramboll, will provide the electronic files upon receipt of a Staff request to upload them to a secure server. Ms. Weissinger's email address is EWeissinger@ramboll.com.

BACKGROUND: Air Quality Technical Report Emissions Data

Load-specific emissions rates for low-load testing are presented in the Air Quality Technical Report (Tables 24 to 29) without supporting documentation or calculations. CEC staff needs to know if the proposed emissions reflect site-specific considerations, that could appear in the referenced "Potential Site Variation" for the engine specifications. Because air quality impact dispersion modeling results are based on the equipment achieving certain low load emission rates, CEC staff needs to know if the applicant intends for the modeled low load emission levels to become enforceable limits. Additionally, the ability of the proposed emissions control systems to quickly warm up and reduce NOx, reactive organic compounds (ROG) or volatile organic compounds (VOC), and

PM10/PM2.5 is not documented. Additionally, the ammonia emissions associated with the proposed SCR are not documented.

DATA REQUESTS

7. Please provide the site-specific Caterpillar 3516E Diesel Generator Specification Sheet (Potential Site Variation) that is cited by the Air Quality Technical Report for the load-specific emissions at low-load points (i.e., 75, 50, 25, and 10 percent load).

RESPONSE TO DATA REQUEST 7

Please see Response to Data Requests 5 and 6.

8. Please provide emission calculations for the uncontrolled and controlled load-specific emission rates covering the range of low-load points (i.e., 75, 50, 25, and 10 percent load).

RESPONSE TO DATA REQUEST 8

These calculations have been provided in their native format with the electronic files requested under Data Request 6.

9. Please confirm that the applicant would accept enforceable limits on emissions rates during low load operations.

RESPONSE TO DATA REQUEST 9

The applicant's proposed testing and maintenance program does not involve extended periods of operation at lower loads, nor does the applicant's compliance with ambient air quality standards rely on control assumptions at these lower loads. For these reasons, enforceable limits on emission rates during low load operations would be unreasonable and unnecessary.

Although previously described as a four-hour test in the Air Quality and Greenhouse Gas Technical Report, upon further discussion with the Project's engineering team, the annual test is anticipated to last less than two hours. During the test, a load bank will be brought onsite and the generators will be cycled through the following sequence of loads:

- 25% load for 15 minutes to warm up
- 75% load for 15 minutes
- 100% load for 1 hour
- 25% load for 15 minutes to cool down

While the test is underway, the SCR is anticipated to come to temperature just as the generator reaches 75% load and will continue to control emissions until temperatures on the generator drop below 500°F part way through the cool-down period while the generator is operating at 25% load. Previous air dispersion modeling that was supplied with the SPPE application conservatively analyzed situations in which individual generators would be operated up to an hour at 10%, 25%, and 50% loads; however, these situations are not anticipated to occur in practice.

The monthly maintenance tests also do not involve extended periods of operation at lower loads. As described in the Air Quality and Greenhouse Gas Technical Report, this test involves operating the generators at no load for up to 15 minutes, and the associated modeling analysis for this testing assumes no period of control.

10. Please provide vendor documentation supporting the warm-up period and NO_x control effectiveness assumptions in achieving the Tier 4 emissions standards.

RESPONSE TO DATA REQUEST 10

See Spec Sheet provided in response to Data Request 5 for information on the NO_x control effectiveness assumption. The 15-minute warm-up assumption used for the analysis in the SPPE application was based on anecdotal observations of general SCR performance with generators of this size. However, the applicant was able to obtain a letter from the control device vendor, which includes estimated warm-up period by load point and is generally representative of the generator type and SCR control system proposed for this project. This letter has been included with the electronic files requested under Data Request 6.

11. Please provide vendor documentation supporting the assumption that the SCR system would reduce ROG emissions by 40 percent.

RESPONSE TO DATA REQUEST 11

See Spec Sheet provided in response to Data Request 5.

12. Please provide vendor documentation supporting the proposed outlet PM₁₀/PM_{2.5} emissions factors of 0.02 grams per brake horsepower-hour (g/bhp-hr).

RESPONSE TO DATA REQUEST 12

See Spec Sheet provided in response to Data Request 5.

13. Please disclose and quantify the potential ammonia emission rates and anticipated levels of ammonia slip during operation of the proposed backup generators.

RESPONSE TO DATA REQUEST 13

This calculation has been provided with the electronic files requested under Data Request 6.

BACKGROUND: Emissions from Storage Tanks

The SPPE application (p.2-12) indicates that the proposed engines would be fueled on diesel from 44 individual storage tanks for a combined onsite diesel fuel storage capacity of approximately 237,600 gallons. The Air Quality Technical Report does not appear to include emission calculations for VOC that would be vented from the storage tanks. Additionally, VOC emissions from the diesel storage tanks would contain toxic air contaminants (TACs) that do not appear in Table 38 of the Air Quality Technical Report, and these need to be listed for consideration in the health risk assessment (HRA).

DATA REQUESTS

14. Please disclose and quantify the potential VOC emissions from the 44 diesel storage tanks and include these in facility-wide summaries of VOC emissions.

RESPONSE TO DATA REQUEST 14

In response to this data request, the applicant estimated the VOC emissions from the 44 diesel storage tanks using methodology consistent with AP-42, Vol.1, Section 7.1 for Liquid Storage Tanks. To estimate the annual fuel throughput of each tank, the applicant multiplied the hourly fuel usage rate for the generators at 100% load (194.1 gal/hr) times the proposed maximum annual hours of operation for the generators (35 hrs/yr). This assumption is conservative as the generators are anticipated to operate at 100% load for only a fraction of their use in a given year. In addition, the emissions were conservatively calculated assuming the storage tanks would remain 50% full, which would result in greater emissions than if the tanks were assumed mostly full, which is the probable scenario. Ultimately, the combined VOC emissions from all 44 tanks was found to be 0.027 tons per year, or less than 1% of operational VOC emissions at full buildout. It's important to note, that emissions were calculated using the meteorological data supplied in the AP-42 Section 7.1 for the closest city to the proposed project location (San Francisco). Because San Francisco is generally cooler than Santa Clara, where the proposed project is located, the applicant conducted a sensitivity run using data for the next closest city, Sacramento (which is generally warmer than Santa Clara) and found resulting emissions to be approximately 0.041 tons per year. This shows that regardless of the exact meteorological assumptions, VOC emissions from the tanks are

expected to be a very small fraction of the facility's operational VOC emissions. Tables summarizing the tank VOC emissions calculation and the tank VOC emissions in the context of the broader project operational emissions are provided with the electronic files requested under Data Request 6.

15. Please disclose and quantify the TACs that would be contained in the VOC emissions from the storage tanks and include these in the HRA or justify why these emissions should not be included in the HRA.

RESPONSE TO DATA REQUEST 15

Due to diesel fuel's relatively high boiling point (and low vapor pressure) evaporative emissions from diesel tanks are generally very low and as a result, the storage of diesel fuel is frequently exempt from permitting.¹ Regardless, to identify the potential TAC emissions associated with the project's diesel tanks, the applicant identified the CARB speciation profile most applicable to this source type (Organic Profile 760 – Evaporative Emissions-Distillate Fuel). Of the speciated compounds within that profile, hexane was the only identified TAC, with a weight fraction of 0.12 (this includes 0.09 from hexane and 0.03 from isomers of hexane). When applied to the project's estimated VOC emissions calculated in the Response to Data Request 14, this equates to less than 7 lbs/yr of hexane emissions. This level of emissions is de minimis from a health risk standpoint and several orders of magnitude below BAAQMD's chronic trigger level of 270,000 lbs/yr for n-hexane under Rule 2-5; as a result, incorporation of the emissions into the project's HRA would have a de minimis effect and is unnecessary.

BACKGROUND: Enforceable Permit Conditions, Short-term Emissions

The SPPE application shows certain assumptions for air quality impact analysis of the typical readiness and maintenance testing emissions that need to be verified.

Assumptions in the analysis appear to include having no more than a specific group of three generator-engines in use at any one time, for no more than 15 minutes in an hour, at a low load, 10 percent, setting (the "monthly testing" scenario on pgs. 9-10 of Air Quality Technical Report). The modeling also assumes that single engines may undergo "annual testing" at one of five different

¹ BAAQMD Rule 2-1-123.3 Section 3.2 exempts containers, reservoirs, tanks or loading equipment used exclusively for "[s]torage or loading of organic liquids or mixtures containing organic liquids; where the initial boiling point of the organics is greater than 302°F and exceeds the actual storage temperature by at least 180°F."

loads, although the analysis specifies that emissions from engines at loads greater than 50 percent would be fully controlled by ensuring that the SCR has fully warmed up (p. 10 of Air Quality Technical Report).

DATA REQUESTS

16. Please confirm that the applicant would request the BAAQMD to require an enforceable limit on concurrent operation of standby engines so that all “monthly” testing runs are limited to: no more than three generators in simultaneous use; for no more than 15 minutes in any given hour; and at loads no greater than 10 percent.

RESPONSE TO DATA REQUEST 16

Martin Properties agrees to request such a condition in its application to BAAQMD.

17. Please confirm that the applicant would request the BAAQMD to require an enforceable limit on single-engine testing of standby engines so that all testing runs begin with 15 minutes of operation at loads no greater than 10 percent to allow sufficient warm up of the SCR.

RESPONSE TO DATA REQUEST 17

Martin Properties agrees to request such a condition in its application to BAAQMD but requests that the load limit be changed to “no greater than 25 percent” instead of “no greater than 10 percent”.

18. Please elaborate on whether the engines could potentially be tested from a cold start to full load, 100 percent during any hour, and if not, please explain what steps could be taken by the owner/operator to avoid this type of full load test.

RESPONSE TO DATA REQUEST 18

The applicant’s proposed testing and maintenance program does not include any tests of this nature. As discussed in Response to Data Request 9, during the annual test generators will be gradually ramped to 100% load. The purpose of operating at 100% load during this test is to eliminate moisture that builds up in the stack over time. This test, and any other test requiring the generators operating at load, would require bringing a load bank onsite or cutting power to some or all of the facility. Both actions along with any variations to established procedures would require extensive planning and approvals from management and would not occur without considerate levels of deliberation.

BACKGROUND: Enforceable Permit Conditions, Annual Operations

Emissions estimates assume no more than 35 hours per year per engine for testing overall. Air quality impact modeling also presumes that readiness testing would be limited to occur within certain hours of the day (between the hours of 7:00 a.m. and 5:00 p.m.).

DATA REQUESTS

19. Please confirm that the applicant would request the BAAQMD to require an enforceable limit that would allow no more than 35 hours per year per engine, for readiness and maintenance testing.

RESPONSE TO DATA REQUEST 19

Martin Properties agrees to request such a condition in its application to BAAQMD.

20. Please confirm that the applicant would request the BAAQMD to require an enforceable limit that would allow testing of standby engines only between the hours of 7 AM to 5 PM daily.

RESPONSE TO DATA REQUEST 20

Martin Properties will request this condition from the BAAQMD.

BACKGROUND: Air Quality Impact Analysis Details

The applicant's air quality impact dispersion modeling uses a customized range of meteorological data (years 2017 to 2021) with a setting of 10.0 meters for the anemometer height for the KSJC station. This customized data deviates from the publicly available data from BAAQMD (years 2013-2017) that has been used by CEC staff on prior similar cases in the vicinity of the project. CEC staff has not verified whether use of the newer data is justified. The BAAQMD default data and webpage indicates that the anemometer sensor height at KSJC is 7.9 meters (<https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/ceqa-modeling-data>); however, the applicant's data appears to assume a sensor height of 10 meters.

DATA REQUESTS

21. Please explain why the publicly available meteorological data from BAAQMD (years 2013-2017) was not used for this project's dispersion modeling and provide the rationale for using a customized range of data.

RESPONSE TO DATA REQUEST 21

In the SPPE Application, the applicant chose to update the date range of the meteorological data used in the air dispersion modeling to 2017-2021 to align with the date range of the ozone data that was used for the project's 1-hour NO₂ modeling, which reflected the most recent data currently available.

22. Please verify that the proper anemometer height was included in the processing of the applicant's meteorological data used for dispersion modeling, and if not, please correct the meteorological input files.

RESPONSE TO DATA REQUEST 22

The applicant confirmed that the anemometer height was incorrectly assumed to be 10 meters. The corrected meteorological input files have been included with the electronic files requested under Data Request 6. The applicant conducted sensitivity runs using the updated data for the operational HRA and 1-hour NO₂ analyses and found that this change has a less than 5% impact on the results at the maximally impacted receptor and does not change the conclusions of significance for these analyses.

BACKGROUND: Cumulative Health Risk Impacts

CEC staff needs to verify the data presented in the summary of cumulative health impacts (Table 45 of the Air Quality Technical Report) and understand the status of the previously approved or proposed nearby facilities that could foreseeably contribute to cumulative impacts. An online query of the BAAQMD Stationary Sources Screening Map provides screening levels of risks and PM_{2.5} concentrations that differ from those presented in the Air Quality Technical Report. CEC staff needs to understand how the levels in the applicant's cumulative health risk tables were derived if not drawn directly from the online database.

Additionally, several projects that are presently approved, under development, or pending development may need to be included as reasonably foreseeable in the cumulative evaluation health risk impacts (summarized in Tables D1, D2, and D3 of the Air Quality Technical Report).

For example, staff needs a clear picture of the foreseeability of emissions from the following facilities:

- ***Sequoia Data Center (CyrusOne; 2600 De La Cruz Blvd.)***
- ***Walsh Data Center (Digital Realty Trust; 651 Walsh Ave.)***

- **Lafayette Data Center (Digital Realty Trust; 2825 Lafayette Dr.)**
- **1200 Memorex Drive Data Center (Santa Clara Propco, LLC, 1200 Memorex Dr.)**

DATA REQUESTS

23. Please provide the reporting results from the BAAQMD's Permitted Stationary Source Risks and Hazards Screening Tool and the supporting calculations used in estimating risks from stationary, rail, and roadway sources at the various maximally exposed receptors.

RESPONSE TO DATA REQUEST 23

The applicant has included a copy of the native calculations supporting this analysis with the electronic files requested under Data Request 6. The applicant notes that since the submittal of the SPPE application, BAAQMD has released new raster files for the health impact data for railroad and major roadway sources (see links below). As a result, the applicant has included a second set of tables in the file provided that include values extracted from these updated raster files.

Major Roadway Sources

Cancer Risk: <https://data.bayareametro.gov/Environment/CEQA-Roadway-Screening-Tool-Cancer-Risk/kz4a-ueki>

Chronic Hazard: <https://data.bayareametro.gov/Environment/CEQA-Roadway-Screening-Tool-Chronic-Hazard/sfnx-xg6j>

PM2.5: <https://data.bayareametro.gov/Environment/CEQA-Roadway-Screening-Tool-PM2-5/r9gy-qwx>

Railway Sources

Cancer Risk: <https://data.bayareametro.gov/Environment/CEQA-Rail-Screening-Tool-Cancer-Risk/6eut-z6mm>

Chronic Hazard: <https://data.bayareametro.gov/Environment/CEQA-Rail-Screening-Tool-Chronic-Hazard/p57h-bktk>

PM2.5: <https://data.bayareametro.gov/Environment/CEQA-Rail-Screening-Tool-PM2-5/upac-tfkk>

24. Please gather information from the City of Santa Clara and/or BAAQMD and provide CEC staff with an update on the status of nearby previously approved or proposed facilities and include these with the cumulative evaluation health risk impacts, as appropriate.

RESPONSE TO DATA REQUEST 24

Based on a review of publicly available information, the applicant understands that the Walsh and Sequoia data centers have been granted Small Power Plant Exemptions and according to recent satellite images, have commenced construction at those sites. The applicant understands that the Lafayette is still undergoing review by the CEC. The 1200 Memorex Project approved by the City of Santa Clara has begun demolition activities. These additions to the cumulative analysis are extremely conservative

because no adjustments have been made to account for the difference in locations of the maximally exposed individual receptors of each project. Even with these conservative additions, the combined potential cumulative cancer risk and chronic and acute hazard indices remain well below the respective BAAQMD significance thresholds. Although the potential cumulative annual PM_{2.5} concentration at the maximally exposed individual residential, daycare, and recreational receptors exceed BAAQMD's significance threshold, the Project's contribution at those receptors is de minimis. A copy of the native calculations supporting this analysis has been included with the electronic files requested under Data Request 6.

BACKGROUND: Sulfur Hexafluoride Emissions

The project would include a new onsite utility substation (SPPE application p.1-2) that would require project-specific circuit breakers and transformers. The CARB adopted Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear on December 30, 2021, which became effective on January 1, 2022. Based on the amended regulation (Cal. Code Regs., tit. 17, § 95352), starting on the applicable phase-out dates, no person may acquire sulfur hexafluoride (SF6) gas- insulated equipment (GIE) unless specific provisions of the regulation are satisfied.

Staff needs to confirm whether SF6 would be used in the circuit breakers and transformers of the project and how the use of SF6 would comply with the phase out regulation (Cal. Code Regs., tit. 17, § 95352) and the applicable phase out date based on the proposed GIE characteristics. If SF6 would not be used, CEC staff needs information on the non-SF6 alternative to be used in the circuit breakers and transformers. CEC staff needs an estimate of the leakage of SF6 or non-SF6 alternative from the electrical equipment to include in the GHG analysis.

DATA REQUESTS

25. Please confirm whether SF6 would be used as the electrical insulator for any electrical equipment for the project.

RESPONSE TO DATA REQUEST 25

Yes, SF6 will be used as an electrical insulator for the high voltage breakers.

26. Please verify how the project would comply with the current SF6 phase out regulation (Cal. Code Regs., tit. 17, § 95352).

RESPONSE TO DATA REQUEST 26

The SF6 GIE will have a rated voltage of 60kV and a short circuit current rating of 40kA. The project will purchase SF6 GIE prior to the phase-out date and it will enter California prior to January 1, 2025, thereby qualifying for exemption outlined in Section 95352 (a)(3) of the current SF6 phase out regulation.

27. If SF6 would not be used, please provide information on the non-SF6 alternative to be used in the circuit breakers and transformers. Please provide an estimate of the quantity of insulating gas to be used and the amount of annual SF6/non-SF6 alternative leakage.

RESPONSE TO DATA REQUEST 27

Each breaker will contain approximately 25 lbs of SF6 gas. This project will have ~50lbs total between the 2 breakers. Published literature suggests that with modern manufacturing practices less than 2% of breakers will leak and of those that do, the total emissions would be less than 0.3% (0.075 lbs). Assuming that statistically only 1 of the 2 breakers could leak, the total emission would be in the range of $0.0 < \text{SF6 Leak} \leq 0.075$ lbs.

CULTURAL RESOURCES

BACKGROUND: Records Search Results

Cultural resources staff have reviewed the results of the cultural resources records search provided by PaleoWest in the Cultural Resources Assessment (CRA), docketed under confidential cover on November 10, 2022 (Heller-Leib et al. 2022). CEC staff compared the CEC internal cultural resources inventory to the results listed in the CRA and have determined the following: 1) After review of Table 4-1 and Appendix A, NWIC Records Search Results, CEC staff determined that the CEC has in its inventory copies of all but 12 of the 95 previous investigations (reports) identified in the CRA. 2) After review of Table 4-2, CEC staff maintains in its inventory copies of all but one of the five previously recorded cultural resources. This is due to the numerous data centers in that area for which the CEC has already received record search information.

DATA REQUEST

28. The following studies (reports) and resource records in the tables below are not on file at the CEC but are indicated in the CRA as components of the records search results. Please provide copies of the listed studies and resource records under confidential cover.

Prior Cultural Resource Investigations²

Report No.	Author(s)	Year
S-003453	Meadows et al.	1950
S-007548	Anastasio et al.	1985
S-017855	Cartier et al.	1995
S-021162 (4 parts)	Busby et al.	1997-1998
S-021169 (2 parts)	Busby et al.	1997, 2004
S-028958	Busby, Colin	2003
S-046936	Psota, Sunshine	2015
S-048005 (2 parts)	Walter et al.	2011
S-048738	Grady and Brandi	2011
S-049626 (11 parts)	Byrd et al.	2008-2013
S-050883	Psota, Sunshine	2018
S-053363	Psota, Sunshine	2019

Primary No.	Resource Name	Author(s)	Year
P-43-004159/CA-SCL-001070/H	WDC-050621-CH-01	Bertagnole, Stephanie	2022

² Source: Table 4-1, Table 4-2 and Appendix A - NWIC Records Search Results (Heller-Leib et al. 2022).

RESPONSE TO DATA REQUEST 28

Copies of the reports have been provided to Staff electronically and a Request for Confidentiality has been docketed.

BACKGROUND: Project Area of Analysis and Historic Built Environment

The applicant proposes to extend an existing recycled water line that is approximately 100 feet east of the property boundaries to the project site (TN 247325, page 2-20). This may extend the project area of analysis for cultural resources since CEC cultural staff apply a minimum one-parcel built environment study area as the project area of analysis for urban projects. Additionally, the Union Pacific Railroad tracks adjacent to the project site and between the existing recycled water line and the property have not been evaluated as a cultural resource despite the rail corridor being more than 45 years old.

DATA REQUESTS

29. Please provide a map showing the exact location of the existing recycled water line the applicant intends to extend and the path of the extension.

RESPONSE TO DATA REQUEST 29

See Attachment CUL DR-29.

30. Please provide an evaluation of all buildings, structures, and objects that are 45 years or older within a one-parcel buffer from the project site and the proposed recycled water line extension alignment on California Department of Parks and Recreation 523 series forms for their eligibility for listing on the California Register of Historical Resources or as a local landmark.

RESPONSE TO DATA REQUEST 30

As shown on the map included in Attachment CUL DR-29, the proposed recycled water pipeline tie-in does not add to/expand the study area. However, Martin Properties has engaged PaleoWest to provide the information requested for the specific railroad parcel. The information will be provided separately when completed under a formal request for confidentiality.

HAZARDS AND HAZARDOUS MATERIALS

BACKGROUND: Urea or Diesel Exhaust Fluid (DEF)

On page 2-13, the project description calls for two 55-gallon drums of diesel exhaust fluid (DEF) to be stored within each generator enclosure to be used by the selective catalytic reduction equipment. On page 4-97, the applicant states each generator would be required to run for a total of four hours per year under maximum load for yearly testing purposes, thus consuming a portion of the DEF.

DATA REQUESTS

31. Please provide a safety data sheet for the DEF and confirm the estimated shelf life of the DEF.

RESPONSE TO DATA REQUEST 31

Please see Attachment HAZ DR-31. The estimated shelf life is dependent on ambient temperature. For the Santa Clara area the shelf life of the DEF is approximately 12-18 months, according to information provided by Peterson Caterpillar.

32. Please provide a DEF replenishment strategy and frequency, and how excess or degraded DEF, if any, would be disposed of properly.

RESPONSE TO DATA REQUEST 32

The DEF will no longer be stored in 55-gallon drums but instead will be stored in a 250 gallon tank within the generator enclosure underlain by a 110 percent containment pan and leak detection monitoring. See drawings in Attachment HAZ DR-33.

Based on the testing and maintenance schedule VDC does not anticipate the need for replacement of degraded DEF. The replacement strategy is to have Valley Oil either replenish the DEF supply by adding DEF from a bulk tanker or bulk tank to the DEF tank inside the generator enclosure.

33. Please provide a schematic drawing showing the DEF containment within the generator enclosure.

RESPONSE TO DATA REQUEST 33

Please see Attachment HAZ DR-33.

HAZARDS AND HAZARDOUS MATERIALS; LAND USE AND PLANNING; AND TRANSPORTATION

BACKGROUND: Project's Conformance with CLUP Policy S-4

The project is within the Turning Safety Zone (TSZ) of the Norman Y. Mineta San Jose International Airport, as designated by the Santa Clara County Comprehensive Land Use Plan (CLUP) for the airport. The applicant proposes above-ground diesel storage tanks (total capacity 237,600 gallons), in violation of Policy S-4 of the CLUP, prohibiting above-ground storage of fuel or other hazardous materials in the TSZ.

The applicant states in Section 4.9.3.5 on page 4-102 that the City of San Jose recently approved revisions to the San Jose International Airport Master Plan which note that Runway 11-29 is now closed. The applicant states that the CLUP should be revised to remove the TSZ overlaying the project site, as it was associated with flights to and from Runway 11-29. Section 4.9.3.5 includes the following statement: While the CLUP has not been revised to remove the TSZ in conformance with the Master Plan, the purpose of the TSZ crossing the site property is moot. Therefore, the proposed site should not be treated as if it were in a special protection zone that would require placing the generators' tanks below grade.

DATA REQUESTS

34. Please provide documentation supporting a forthcoming revision of the CLUP to remove the TSZ over the project site, or to show Santa Clara County Airport Land Use Commission (ALUC) and City of San Jose support of above-ground storage tanks at the project site. This supporting documentation must include written communication from the ALUC and city airport planning staff. Written summaries of the applicant's discussions with ALUC and city staff may suffice.

RESPONSE TO DATA REQUEST 34

Martin Properties is setting a meeting to discuss with the ALUC and city airport planning staff and will provide a supplemental data response after the meeting is concluded.

35. Please update, as necessary, the analysis of the project's conformance with CLUP Policy S-4 as it relates to the CEQA Guidelines Appendix G questions in the areas of Transportation, Land Use and Planning, and Hazards and Hazardous Materials, noting written documentation from DR-34, above.

RESPONSE TO DATA REQUEST 35

See Response to Data Request 35. This data response will be supplemented after the meeting with ALUC and city airport planning staff.

36. If the analysis cannot show project conformance with the CLUP Policy S-4, please submit an alternative design for the fuel storage tanks that would be consistent with this policy. Please note that other nearby data center projects (Lafayette and Sequoia) have provided alternative designs for their fuel storage tanks to conform with the CLUP Policy S-4.

RESPONSE TO DATA REQUEST 36

See Response to Data Request 35. This data response will be supplemented after the meeting with ALUC and city airport planning staff.

BACKGROUND: Thermal Plume Analysis

On page 4-103, the applicant states an airport consultant has been commissioned to prepare an analysis of established airport procedures to assess the potential for flights at the Norman Y. Mineta San José International Airport encountering either a plume at or below the heights identified in a thermal plume analysis.

DATA REQUEST

37. Please provide the report of the analysis by the airport consultant.

RESPONSE TO DATA REQUEST 37

The analysis is underway and will be submitted under separate cover on or before March 28, 2023.

PROJECT DESCRIPTION

BACKGROUND: Project Interconnection and System Reliability

The Martin Backup Generating Facility (MBGF) application Section 2 indicated that the MBGF includes an on-site substation and an on-site switching station to provide 60 kilovolt (kV) service from Silicon Valley Power (SVP) to the proposed site. CEC staff requires a complete description of the both the Martin Data Center (MDC) interconnection to the SVP 60 kV system and the reliability of the SVP system to understand the potential operation of the back-up generators.

DATA REQUESTS

38. Please provide a complete one-line diagram for the new on-site substation. Show all equipment ratings, including bay arrangement of the breakers, disconnect switches, buses, redundant transformers or equipment, etc. that would be required for interconnection of the MDC.

RESPONSE TO DATA REQUEST 38

Please see Attachment PD DR-38 which includes a complete one-line diagram for the new on-site substation and SVP switching station.

39. Please provide a detailed description and one-line diagrams of the new on-site switching station with the interconnection of the MDC on-site substation. Please label the name of the lines which connecting the switching station to the SVP system and provide the line voltages.

RESPONSE TO DATA REQUEST 39

The switching station is setup to receive power from SVPs main-tie-main switching Junction via two (2) 60kV services. The customer owned substation will protect and convert power delivered by SVP to 34.5kV through MetalClad switchgear for distribution throughout the campus to padmount gear and distribution type transformers. The main power transformers are configured to limit fault current to the distribution equipment and provide for orderly shutdown of equipment during a line-ground fault. The customer is able to log revenue grade metering redundant to the utility and at the feeder level. Protection at the substation is overlapping with redundant methods. See Attachment PD DR-38.

40. Please clarify which SVP loop the MDC on-site switching station would be interconnected to.

RESPONSE TO DATA REQUEST 40

The MDC has requested interconnection to the SVP system but SVP has not provided the design of the facilities. Martin Properties has requested SVP respond Data Requests 40-47. When received Martin Properties will provide supplemental data responses.

41. Please provide a detailed description and drawings of the proposed 60 kV transmission line route to the on-site switching station, length, possible interconnection points to the existing SVP system, and possible pole locations. Please provide a legend and label the drawing to show the proposed line route, pole locations and the existing transmission facilities.

RESPONSE TO DATA REQUEST 41

See Response to Data Request 40.

42. Please provide the pole configurations which would be used to support the overhead transmission lines from the SVP 60 kV system to the on-site switching station, and to the on-site substation. Show proposed pole structure configurations and measurements.

RESPONSE TO DATA REQUEST 42

See Response to Data Request 40.

43. Please explain whether adding the MDC would require upgrades to the existing SVP system beyond the direct interconnection to the switching station.

RESPONSE TO DATA REQUEST 43

See Response to Data Request 40.

44. Please provide for the 60 kV loop on the SVP system that will serve the proposed project:
 - a. A physical description
 - b. The interconnection points to SVP service
 - c. The breakers and isolation devices and use protocols
 - d. A list of other connected loads and type of industrial customers
 - e. A written description of the redundant features that allow the system to

provide continuous service during maintenance and fault conditions

RESPONSE TO DATA REQUEST 44

See Response to Data Request 40.

45. Please describe any past outages or service interruptions, including Public Safety Power Shutoffs (PSPS), on the 60 kV systems that would serve the proposed project. Based on these prior events, please also provide the following:
- a. Describe any equipment upgrades or operational changes implemented by SVP to reduce the likelihood of a repeat of the events that led to an outage.
 - b. Describe the responses to the outage(s) by any existing data centers (i.e., initiated operation of some or all backup generation equipment, data offshoring, data center shutdown, etc.)?

RESPONSE TO DATA REQUEST 45

See Response to Data Request 40.

46. How would local and regional PSPS events be implemented on the 60 kV system compared to PSPS events on the 115 kV system (in other words, would a customer who is extremely concerned about reliability prefer one system over another)?

RESPONSE TO DATA REQUEST 46

See Response to Data Request 40.

47. Please provide the follow regarding PSPS events:
- a. Please describe how, if historical PSPS events were to occur, the emergency operations of the generators at the proposed project would be engaged?
 - b. Have there been any changes to the SVP system since PSPS events began that would affect the likelihood that future PSPS events would result in the operation of emergency generators at the proposed project?

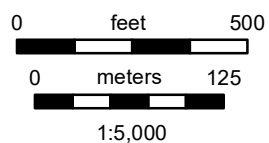
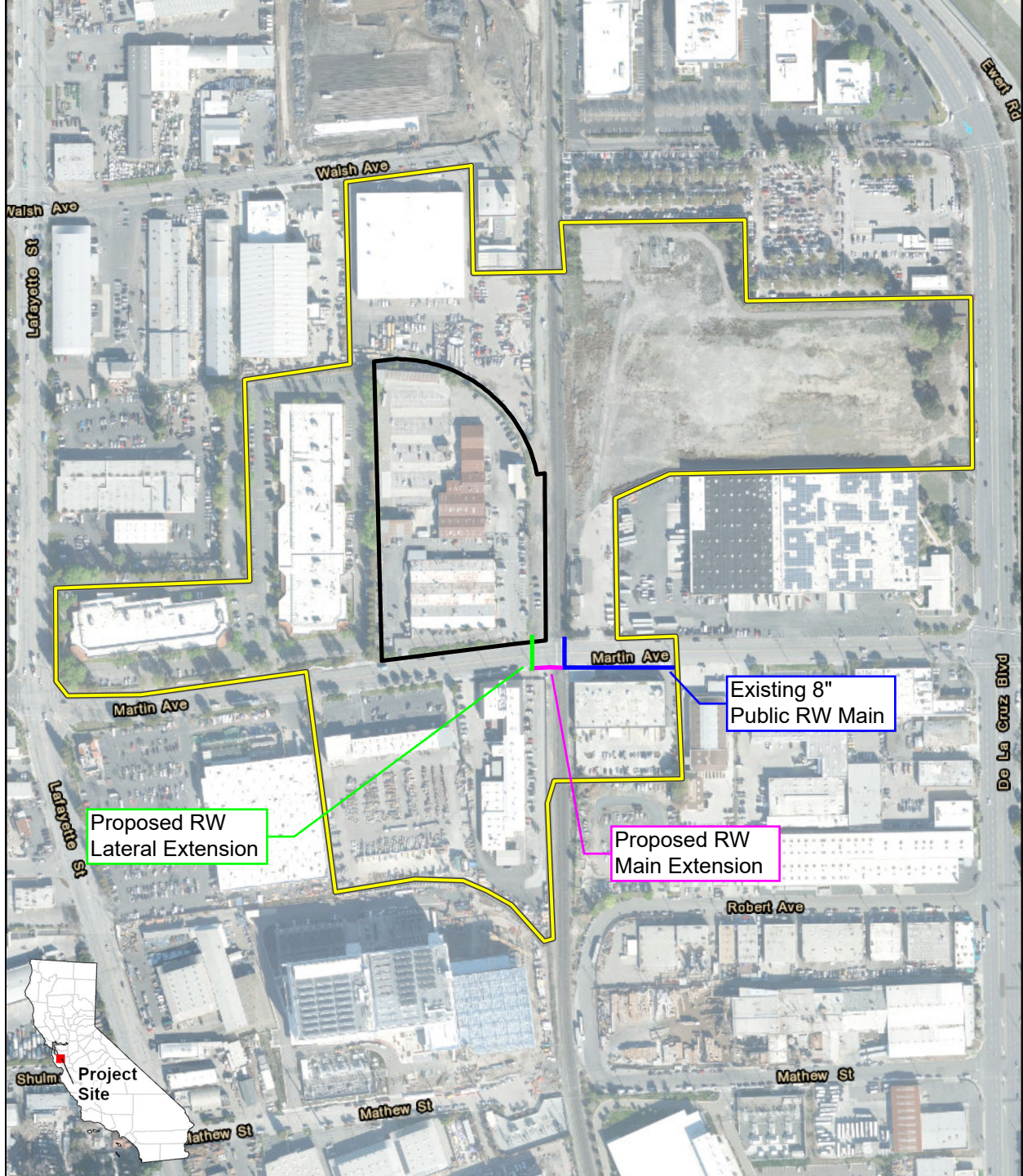
RESPONSE TO DATA REQUEST 47

See Response to Data Request 40.

ATTACHMENT CUL DR-29

Map of Recycled Water Pipeline Interconnection

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors



Project Area Map
USGS 7.5' Quadrangle:
Sab Jose West, CA (1980)
T6S, R1W, Sec 35
Mt. Diablo BM
UTM Zone 10, NAD 83

- Project Site
- Project Area

ATTACHMENT HAZ DR-31

DEF Safety Data Sheet



Safety Data Sheet

1. Product Identifier and Company Identification

Product name : Urea Solution – High Purity 32.5%
HBCC SDS number : CU02460M0
Synonym : Urea Solution; Urea liquor; Diesel Exhaust Fluid (DEF),
Product use and Restrictions : Refer to label or call
Manufacturer : Corporate Headquarters
Contact Address : Hill Brothers Chemical Company
1675 North Main Street
Orange, California 92867
714-998-8800
800-821-7234
Corporate Safety & Compliance
Hill Brothers Chemical Company
7121 West Bell Road, Suite 250
Glendale, Arizona 85308
623-535-9955 - Office
623-535-9944 - Fax
Emergency telephone Number (Chemtrec) : 800-424-9300
Website : <http://hillbrothers.com>

2. Hazard Identification

Classification : None
Signal Word : None
Pictogram(s) : None
Hazard Statements : None

Precautionary Statements

Response : None
Prevention : None
Storage : None
Disposal : None

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
57-13-6	Urea	31-33%
7732-18-5	Water	67-69%
7664-41-7	Ammonia	≤0.15%

4. First Aid Measures

Summary of First Aid Measures

Ingestion : Do not induce vomiting. Get medical attention immediately.
Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin	: Remove contaminated clothing. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.
Eyes	: Immediately flush with large amounts of water, including under the eyelids. If pain or irritation persists seek medical attention. Speed and thoroughness in rinsing eyes are important to avoid permanent injury.
Medical Conditions	
<u>Effects of Acute and Delayed Exposure</u>	
Inhalation	: May cause respiratory irritation.
Skin Contact	: May cause skin irritation.
Eye Contact	: May cause eye irritation.
Ingestion	: Do not induce vomiting. Get medical attention immediately.
Chronic Symptoms	: None expected under normal conditions of use.
Indication of Any Immediate Medical Attention and Special Treatment Needed	: If exposed and feeling unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Extinguishing	: Use extinguishing media appropriate for surrounding fire. Unsuitable Extinguishing Media: Do not use heavy water stream. Use of Heavy water stream of water may spread fire.
Special Exposure Hazards	: Fire Hazard: Not combustible but may decompose at high temperatures. Explosion Hazard: Product is not explosive. Reactivity: Hazardous reactions will not occur under normal conditions.
Special Protective	: Do not enter fire area without proper protective equipment, including Respiratory protection.
Fire Fighting Procedures	: Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present. Firefighting Instructions: Use water spray or fog for cooling exposed containers.
NFPA Rating	: Health - 1 Flammability - 0 Instability - 0



0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

6. Accidental Release Measures

- Personal Precautions** : Equip Cleanup crew with proper protection.
- Emergency Procedures** : Ventilate area.
- Methods of Containment And Clean-Up** : Contain any spills to prevent migration and entry into sewers or streams. Clean up spills immediately and dispose of safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities as appropriate after a spill.
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

7. Handling and Storage

- Safe Handling** : Store in compliance with all Federal, State, and local regulations. Store in a well-ventilated area, away from incompatible materials or sources of heat and ignition. Empty containers may contain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flames, sparks or other sources of ignition; they may evolve noxious fumes.
- Storage** : Store in compliance with all Federal, State, and local regulations.
- Work/Hygienic Practices** : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Chemical Name: Urea Solution – High Purity 32.5%				
Exposure Limits (TWAs) in Air				
CAS Number	Chemical	ACGIH TLV	OSHA PEL	STEL
57-13-6	Urea	N/A	N/A	N/A
7664-41-7	Ammonia	25	50	35

Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available but not required.

- Protective Equipment** : Safety glasses, gloves and general work clothing are recommended. Where Ventilation is insufficient, wear respiratory protection. Wearing of appropriate protective clothing and gloves is suggested if epidermal sensitivity develops. Wear chemically resistant protective gloves.
- Eye Protection** : Safety glasses.
- Respiratory** : Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

9. Physical and Chemical Properties

Appearance: Colorless liquid	Odor: slight ammonia odor
Odor Threshold: Not available	pH: 7.5-10
Melting Point/Freezing Point: 11.5F	Initial Boiling Point/Range: 219°F
Flash Point: Not applicable	Evaporation Rate (BuAc=1): Not available
Flammability: Not applicable	Lower/Upper Explosive Limit: Not applicable
Vapor Pressure (mmHg): Not available	Vapor Density (Air=1): Not available
Specific Gravity @ 20°C: 1.09cc (9.1 lb/gal)	Solubility in Water: 100%
Heat of Solution in H₂O: Not available	Heat Capacity at 25° C (77° F): Not available
Decomposition Temperature: 135°C (275°F) Urea	Density at 25° C (77° F): 9.1 Lbs./Gal
% Volatiles: Not available	Loose Bulk Density: Not available
Molecular Weight: 60.07 (100% Urea)	VOC: Not available

10. Stability and Reactivity

Reactivity	: Hazardous reactions will not occur under normal conditions.
Chemical Stability	: Stable under recommended handling and storage conditions (see section 7).
Possibility of Hazardous Reactions or Polymerizations	: Hazardous polymerization will not occur.
Conditions to Avoid	: Avoid exposing containers to heat or flame. Keep separated from incompatible materials.
Incompatible Materials	: Nitric acid. Gallium. Perchlorates. Strong oxidizers. Caustic products. Alkalis.
Hazardous Decomposition Products	: Ammonia. Nitrogen oxides.

11. Toxicological Information

Acute and Chronic Effects	: Not classified
<u>Routes of Exposure</u>	
Inhalation	: Yes
Ingestion	: Yes
Skin	: Yes
Eyes	: Yes
Symptoms related to Physical, Chemical & Toxicological Characteristics	: Not classified
Numerical Measures of Toxicity (Urea)	: LD50 Oral Rat = 8471 mg/kg

Numerical Measures of Toxicity (Ammonia) : LD50 Inhalation Rat = 5.1 mg/l (exposure time 1 h)
LD50 Inhalation Rat = 2000 ppm/4h (exposure time 4 h)

Chronic Toxicity : None expected under normal conditions of use.

Carcinogenicity :

Product Name: Urea Solution – High Purity 32.5%					
ACGIH	IARC	EPA	NIOSH	NTP	OSHA
-	-	-	-	-	-

TARGET ORGANS : N/A

12. Ecological Information

Ecotoxicity : **Urea**
LC50 Fish 1 = 16200 -18300 mg/l (exposure time 96 h – Species: Poecilia reticulata)
EC50 Daphnia 1 = 3910 mg/l (exposure time 48 h – Species: Daphnia magna [static])
Ammonia
LC50 Fish 1 = 0.44 mg/l (exposure time 96 h – Species: Cyprinus carpio)
EC50 Daphnia 1 = 25.4 mg/l (exposure 48 h – Species: Daphnia magna)
LC50 Fish 2 = 0.26 - 4.6 mg/l (exposure 96 h – Species: Lepomis macrochirus)

Persistence and Degradability : Not available

Bioaccumulative Potential :	Product/Ingredient	Log _{Pow}	BCF	Potential
	Urea	-1.59 (at 25°C)	<10	-

Mobility in Soil : Not available

13. Disposal Considerations

Dispose of waste material in accordance with all local, regional, national, and international regulations.
Additional Information: Spilled chemical can be used as fertilizer.

14. Transport Information

This product is not regulated for transport as a hazardous material, substance or dangerous good.

15. Regulatory Information

SARA 302 Extremely Hazardous Substances (EHS) : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) under Section 302 of EPCRA.

SARA 304 Extremely Hazardous Substances (EHS) Release Notification : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) which, if released to the environment in quantities at or above the substance's Reportable Quantity (RQ), would require reporting to the SERC and LEPC under Section 304 of EPCRA.

SARA 311/312 Hazards

:

SARA 311/312 Hazards				
Acute	Chronic	Flammability	Pressure	Reactivity
No	No	No	No	No

SARA 313 Reportable Chemicals

: No chemical in this product is subject to annual emissions, transfers, or waste management reporting under the Community-Right-to-Know provisions of EPCRA Section 313, also known as the Toxic Release Inventory (TRI) Report or Form R.

CERCLA Hazardous Substances

: No chemical in this product is listed as a CERCLA hazardous substance subject to the National Response Center (NRC) release reporting requirements.

Clean Air Act (CAA) Section 112(r) Air Pollutants

: No chemical in this product is listed as an air pollutant under the U.S. Clean Air Act, Section 112(r) (40 CFR 61).

California Prop 65 Chemicals

: This product does not contain any chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Hazard Label Warning

: This product does not require hazard label warnings.

TSCA (Toxic Substances Control Act)

: All chemical substances in this product are listed on the U.S. TSCA Inventory List.

ACRONYMS:

CAS # – Chemical Abstract Services Registry Number

CFR – Code of Federal Regulations

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

EPCRA – Emergency Planning and Community Right-to-Know Act

LEPC – Local Emergency Planning Committee

SERC – State Emergency Response Commission

16. Other Information**Revision date**

:

Supersedes

:

First Issue

: 09/28/2017

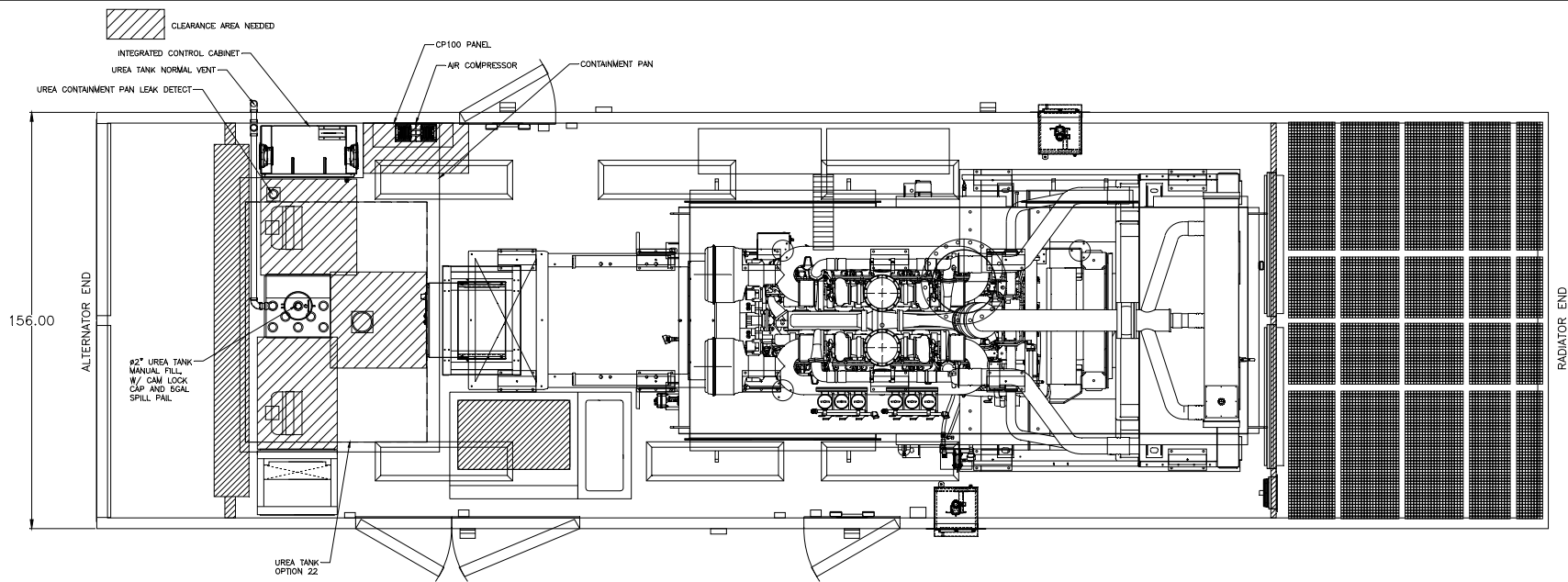
Section(s) changed since last revision

: First Issue SDS

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy

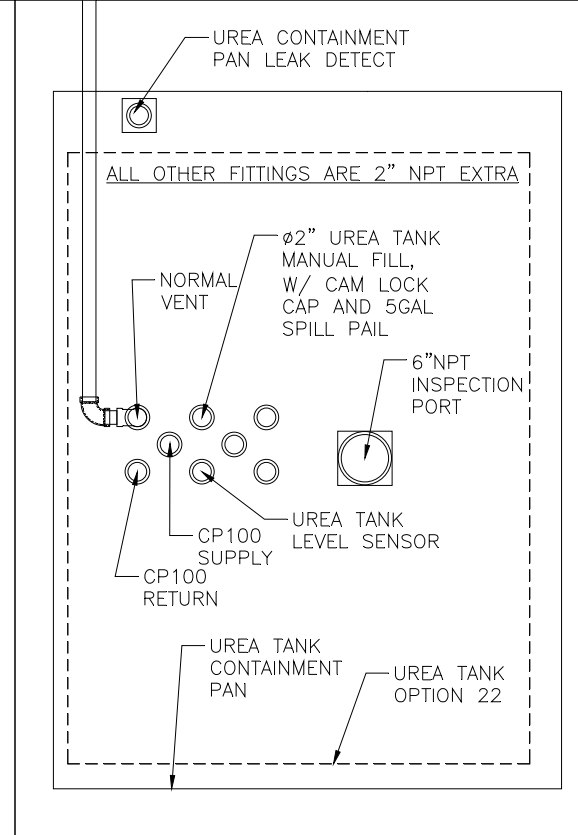
ATTACHMENT HAZ DR-33

Drawing of Generator Enclosure

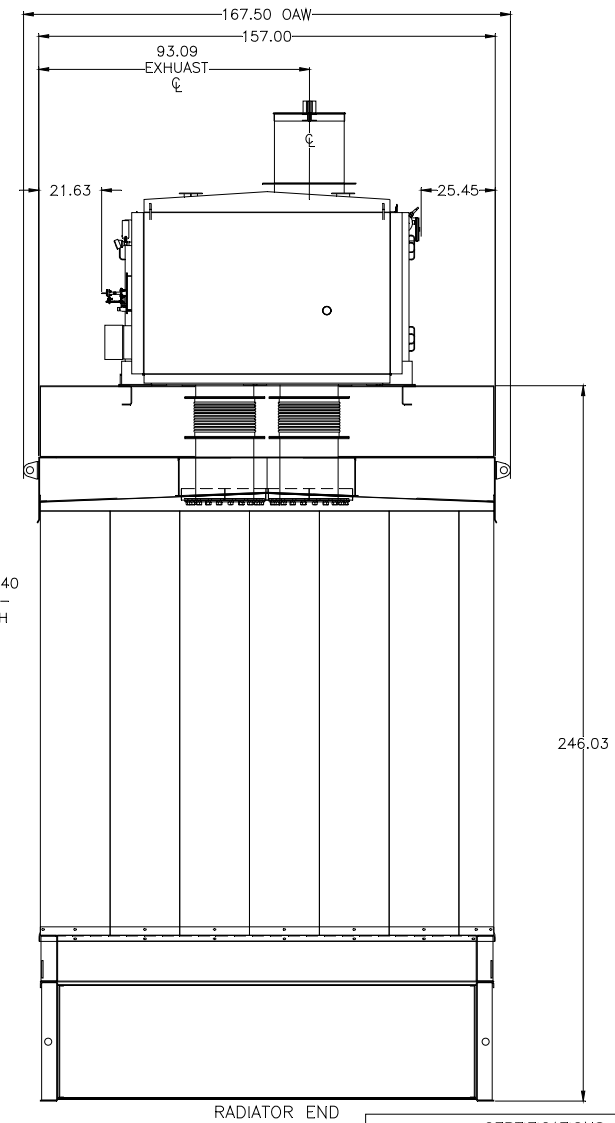
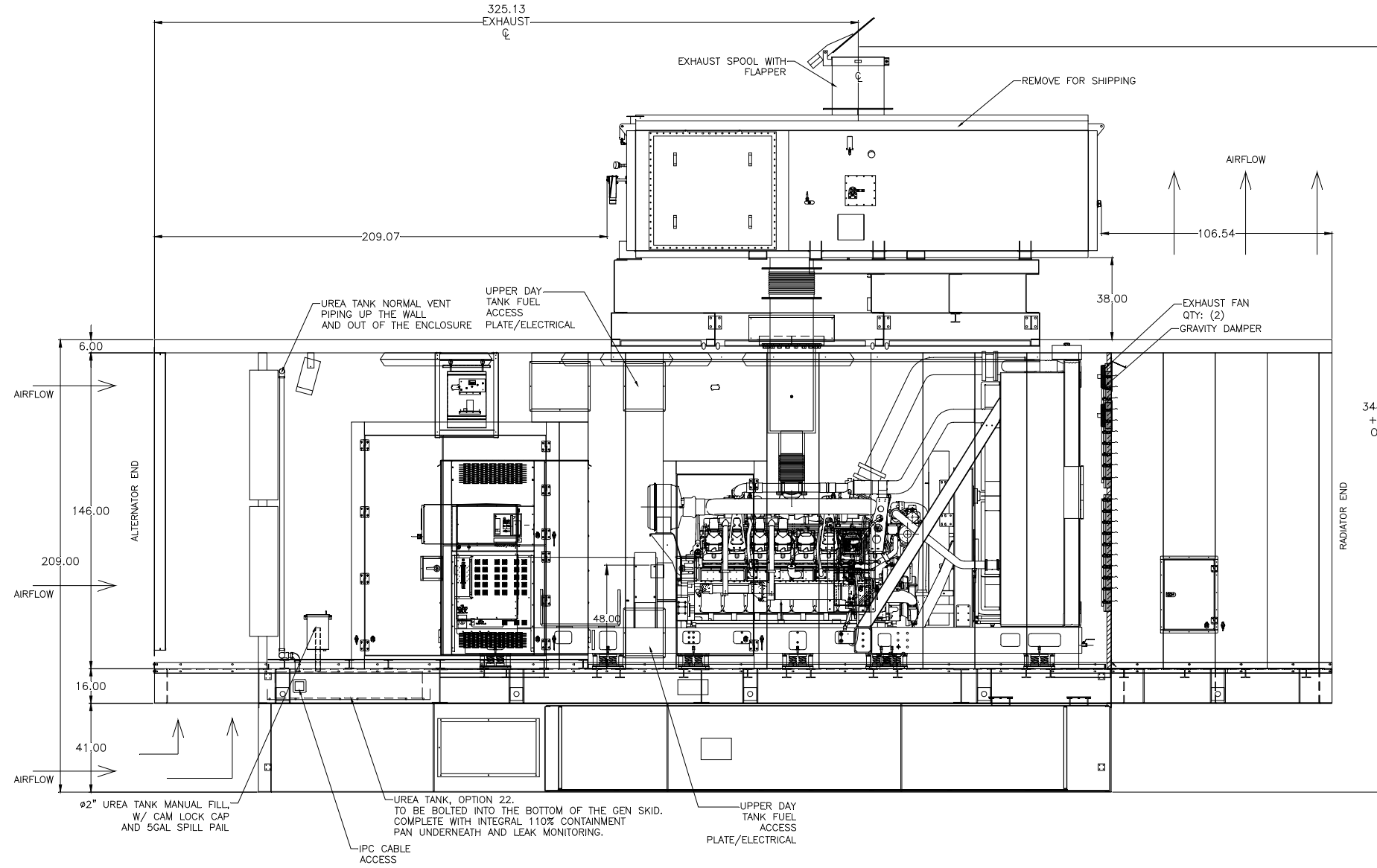


OPTION 22


(W/DPF TOP DISCHARGE)



UREA TANK FITTING DETAIL



CERTIFICATIONS	
<input checked="" type="checkbox"/>	UL CLASSIFIED ENCLOSURE PACKAGE
<input type="checkbox"/>	IBC CERTIFICATION
<input type="checkbox"/>	SEISMIC CERTIFICATION

**ROBINSON**

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(920) 617-3308 (FAX)

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CUSTOMER NAME: PETERSON POWER SYSTEMS			
PROJECT NAME: GLOBAL CORE			
TITLE: OPTION 22 ASSEMBLY DRAWING		DRAWING #: 2293-F	
GENSET DWG #: GENNUM		JOB #:	SEE TABLE
SHEET #:	A-400	DATE:	9/1/21
DRAWN BY	HB	FLATS BY	F.B.
PROJ. MAN.	HN	QUOTE #:	209716-02

REV.	REVISION DESCRIPTION	DATE	BY
F	REVISED WJH WIRING, DAY TANK FITTINGS/PLUMBING, AND UREA TANK FITTINGS	2/01/23	HB
E	REVISED IPC CIRCUITRY AND PANEL CALCS	5/31/22	JO
D	REVISED ELECTRICAL, ADD SUPPLEMENTAL VIEWS	5/16/22	DT

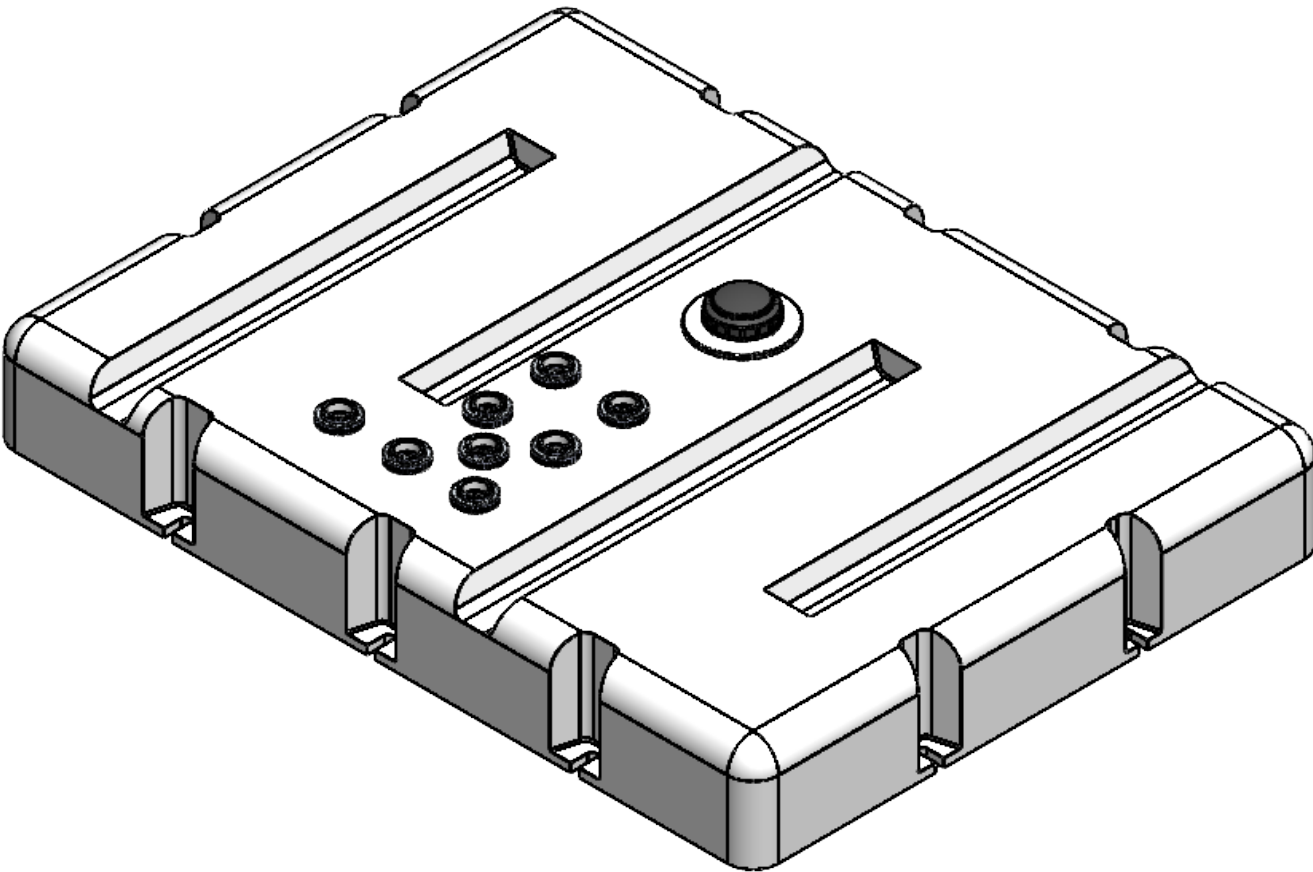
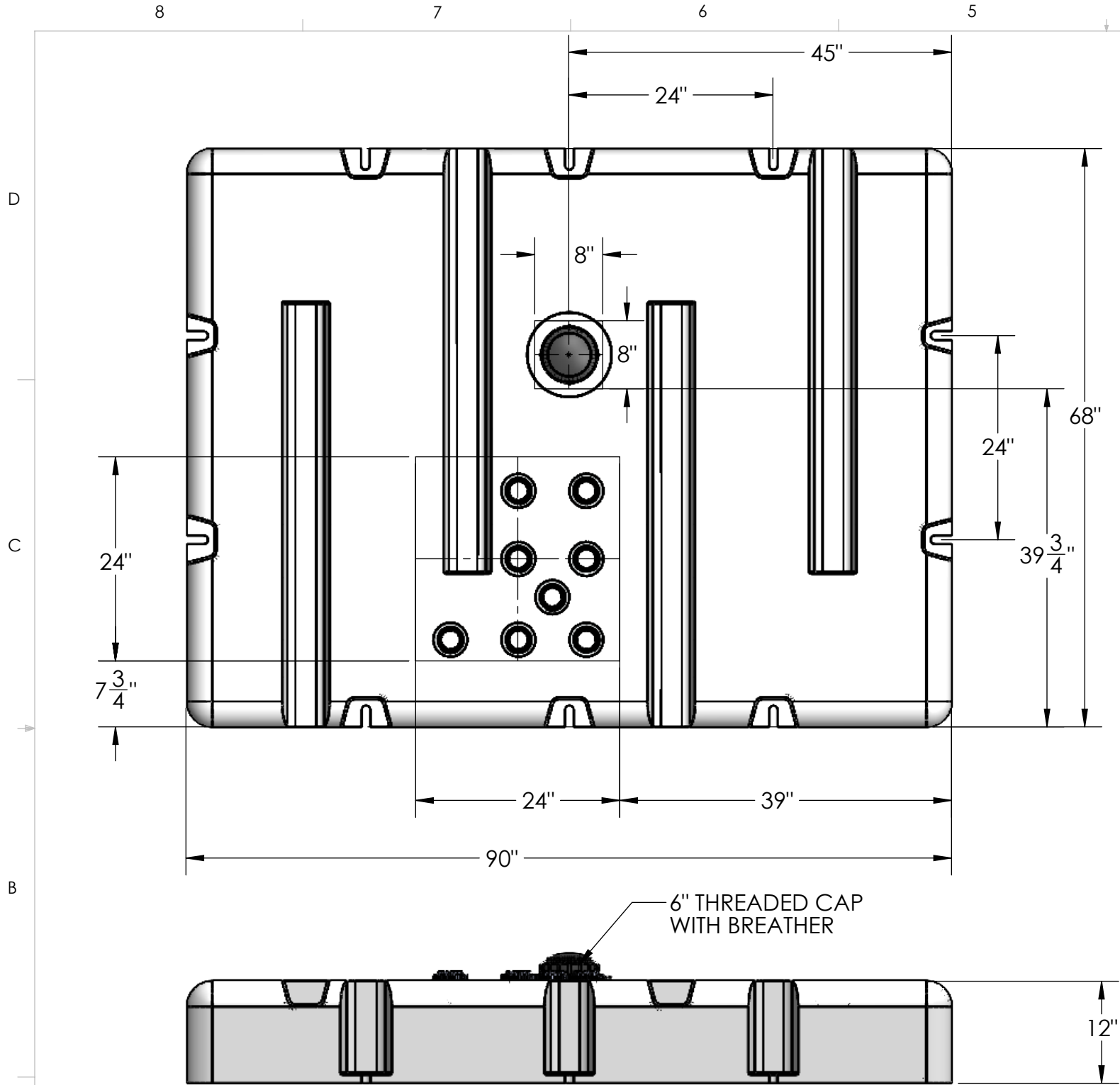
APPROVED AS DRAWN ☐

APPROVED AS NOTED ☐

REVISE AS NOTED, RESUBMIT ☐

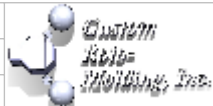
SIGNATURE _____

DATE _____



NOTES:

1. MATERIAL: HDPE
2. AVG. WALL THICKNESS: .38
3. MOLDED WT. 214 LBS.
4. CAPACITY: 250 GALLONS

<p>PROPRIETARY AND CONFIDENTIAL</p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <INSERT COMPANY NAME HERE>. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <INSERT COMPANY NAME HERE> IS PROHIBITED.</p>		<p>UNLESS OTHERWISE SPECIFIED:</p> <p>DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES:</p> <p>FRACTIONAL ±</p> <p>ANGULAR: MACH ± BEND ±</p> <p>TWO PLACE DECIMAL ±</p> <p>THREE PLACE DECIMAL ±</p> <p>INTERPRET GEOMETRIC TOLERANCING PER:</p> <p>MATERIAL</p> <p>FINISH</p>		NAME		DATE	 <p>TITLE:</p> <p>PLASTIC MART 906812 TANK ASSY.</p> <p>SIZE DWG. NO. REV</p> <p>SCALE: 1:24 WEIGHT: SHEET 1 OF 1</p>
				DRAWN		EBW	
				CHECKED			
				ENG APPR.			
				MFG APPR.			
NEXT ASSY		USED ON		Q.A.			
APPLICATION		DO NOT SCALE DRAWING		COMMENTS:			

ATTACHMENT PD DR-38

One Line Diagram of Substation and Switching Station

1. ALL BREAKERS AND SWITCHES ARE CLOSED DURING NORMAL OPERATION UON.
2. SVP DOES NOT PERMIT CUSTOMER METERS ON UTILITY METER INSTRUMENT TRANSFORMERS. A STANDALONE PT IS PROVIDED FOR VANTAGE METER.
3. UTILITY IS NOT TO BE PARALLELED THROUGH CUSTOMER SWITCHGEAR.

AC	ALTERNATING CURRENT
AH	ARC HORNS
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BAT	BATTERY
BC	BATTERY CHARGER
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT
H,HV	HIGH VOLTAGE
IPS	IRON PIPE SIZE
M	METER
MCOV	MAXIMUM CONTINUOUS OPERATING VOLTAGE
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
NF	NON-FUSED
NGR	NEUTRAL GROUNDING REACTOR
OLTC	ON LOAD TAP CHANGER
N.O.	NORMALLY OPEN
NLTC	NO LOAD TAP CHANGER
PVC	POLYMERIZING VINYL CHLORIDE
QB	QUICK BREAK WHIP
SA	SURGE ARRESTOR
SC	STATION CLASS
SCH	SCHEDULE
SVP	SILICON VALLEY POWER
TX	TRANSFORMER
U	UTILITY
UON	UNLESS OTHERWISE NOTED
VT	VOLTAGE TRANSFORMER
X	LOW VOLTAGE

	72.5kV, 63kA, SF6 HIGH VOLTAGE BREAKER
	72.5kV GANGED AIR BREAK SWITCH
	72.5kV GANGED CENTER AIR BREAK SWITCH, 1200A, AH
	MOV SURGE ARRESTER
	DELTA
	WYE UNGROUNDED, GROUNDED
	EARTH, INSPECTION WELL, FRAME GROUND
	AIR INSULATED BUSHING
	LIVE FRONT TERMINATION
	CURRENT TRANSFORMER, 0.15B-1.8, TRF=1.5
	TEST SWITCH
	POWER METER
	2-WINDING POWER TRANSFORMER 60/80/100MVA@65°C, KNAN/KNAF1/KNAF2, 60kV-34.5kV, 10%Z
	OLTC, +/-10%, 33-POSITION, 16 FCAN & FCBN NLTC, +/-5% , 5-POSITION, 2 FCAN & FCBN
	3-WINDING POTENTIAL TRANSFORMER 34.5kV-115/69V, 0.3WXYZ.ZZ
	2-WINDING CONTROL POWER TRANSFORMER 34.5kV-240/120V, 50kVA
	AIR CORE REACTOR, Z=66.4Q, 300A, 10SEC
	MEDIUM VOLTAGE DRAWOUT FUSED POTENTIAL TRANSFORMER, 34.5kV-115/67V, 300:1:1 WITH (3)1E FUS
	MEDIUM VOLTAGE DRAWOUT FUSES, (2)3E
	MEDIUM VOLTAGE DRAWOUT VACUUM CIRCUIT BREAKER 34.5kV, 25kA
	BUS
	FEEDER
	FEEDER UNDERGROUND
	CONTINUATION
	SCOPE OF WORK BOUNDARY
	PT WIRING
	3 PHASE CT WIRING
	CONTINUATION CONNECTOR, ON-PAGE UNLESS REFERENCED TO ANOTHER DRAWING.
	PHASE IDENTIFICATION



G