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High Desert Power Trust

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July 21, 2014

Mr. Joseph Douglas
Compliance Project Manager
California Energy Commission
Siting, Transportation, and
Environmental Protection Division
1516 9th Street, MS-15
Sacramento, California 95814

RE: High Desert Power Project (97-AFC-1C) Petition for Staff Approved Modification

Dear Mr. Douglas:

Pursuant to Section 1769(a)(2) of the Commission's Regulations,¹ High Desert Power Trust ("HDPT") hereby submits to the California Energy Commission ("Commission" or "CEC") this petition for staff approved modification ("Petition") of the certification for the High Desert Power Project ("HDPP" or "Project", 97-AFC-01), approved May 3, 2000 (hereinafter the "Final Decision").

Because there is no possibility that the improvements described herein may have a significant effect on the environment, and the improvements will not result in a change or deletion of a condition in the Final Decision or make changes that would cause the Project not to comply with any applicable laws, ordinances, regulations, or standards, HDPT requests that Commission Staff make a determination pursuant to Section 1769(a)(2) that Commission approval is not required for the proposed improvements to the existing water treatment system. HDPT requests that Commission Staff issue its determination by August 22, 2014, to facilitate the timely installation of these improvements.

HDPT is proposing to incorporate two improvements to the existing water treatment system: (1) an ultraviolet treatment system (the "UV System") and (2) an enhancement to the existing cold lime softening system (the "Cold Lime System"). These improvements to the existing water treatment system will reduce water consumption and improve the overall efficiency and reliability of the HDPP. These capital improvements are part of HDPT's systematic and comprehensive approach to upgrading existing systems by removing process "bottlenecks". In this case, the improvements will, among other benefits, facilitate and enhance the capability to remove silica from the cooling tower blowdown stream. The silica enters the facility as a constituent in the recycled water and State Water Project ("SWP") water.

¹ 20 C.C.R. § 1001 *et seq.*

1. DESCRIPTION OF PROPOSED PROCESS IMPROVEMENTS

Section 1769(a)(1)(A) of the Commission's regulations requires a complete description of the proposed modification, including new language for any conditions that will be affected. The UV System and the Cold Lime System will incorporate into the existing HDPP water treatment system to improve the microfiltration process of the Project. No condition language is affected by these improvements.

The UV System will be incorporated inside the existing water treatment facilities. The purpose of the UV system is to destroy the total organic content ("TOC") in the cooling tower blowdown that binds magnesium and fouls the microfilter membranes. High energy UV lamps emitting UV energy at 185 nm are used to trigger the photolysis of water, producing very powerful hydroxyl free radicals (i.e., OH molecules). These hydroxyl free radicals attack organic compounds, breaking them down into carbon dioxide and water when fully oxidized. The UV System consists of two 100% UV reactors capable of providing 100 mJ/cm² at 300 gpm. (See, Attachment A, Figures 1 and 2.) The UV System is equipped with a recirculation loop with a UV recirculation control valve that maintains flow through UV to reduce excessive start/stops and increase overall TOC destruction. The UV reactors will be the first treatment in the cooling tower blowdown system, and will be installed in the blowdown system after the cooling tower blowdown and before the cold lime softening system.

The Cold Lime System will include the minor alteration of an existing structure containing the two existing tanks already in the HDPP water treatment system. A third tank will be added to increase contact time. (See, Attachment A, Figures 2 and 3.) The minor alteration to the existing structure will shelter the third tank and will be a "bump out" of approximately 15.5 feet by 27.5 feet. The "bump out" will add only approximately 426 square feet to an existing building. The bump out will be on the existing asphalt surface surrounding the water treatment facility. (See, Attachment A, Figure 3 for a detailed view.)

This bump out of the existing building will shelter the third, 20,000-gallon Cold Lime Softening ("CLS") Reaction Tank No. 3. The new Reaction Tank No. 3 and related facilities will be piped in series after existing Reaction Tank No. 2 and before the existing Concentration Tanks. (See, Attachment A, Figure 1.) The CLS Reaction Tank No. 3 will supply additional reaction time (i.e., "contact time") to allow magnesium hydroxide to completely precipitate, improving recycled water use, and overall HDPP efficiency and reliability.

2. NECESSITY OF PROPOSED MODIFICATION

Section 1769(a)(1)(B) of the Commission’s regulations requires a discussion of the necessity of the proposed modification. Since commissioning, the Project’s microfiltration process has not performed efficiently, as the current system is undersized for efficient Project use of recycled water. Increased dispatch of the Project and the changes in water sources for Project operations over the years have made it apparent that the microfiltration process is a bottleneck in plant operations, negatively affecting the Project’s performance. The proposed improvements will provide a more robust pretreatment system for the microfilters for all sources of water utilized by the Project, which will in turn improve Project performance and efficiency. The improved performance will enhance the HDPP’s ability to use recycled water and State Water Project water, when available for use and banking.

3. IS THE AMENDMENT BASED ON INFORMATION KNOWN AT THE TIME OF THE CERTIFICATION PROCEEDING?

Section 1769(a)(1)(C) of the Commission’s regulations requires a discussion of whether “the modification is based on information that was known by the petitioner during the certification proceeding.” The proposed improvements are not based on information known by HDPT during the certification proceeding. The decision to incorporate the UV System and Cold Lime System improvements to the existing water treatment system was made after certification of the HDPP as part of HDPT’s ongoing efforts to improve the performance and efficiency of the HDPP.

4. IS THE AMENDMENT BASED ON NEW INFORMATION THAT CHANGES OR UNDERMINES THE ASSUMPTIONS, RATIONALE, FINDINGS, OR OTHER BASES OF THE FINAL DECISION?

Section 1769 (a)(1)(D) of the Commission’s regulations requires a discussion of whether the proposed modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, and if so, an explanation of why the change should be permitted. The improvements are not based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the Final Decision, but rather is based on the decision by HDPT to improve Project performance and efficiency through improvements to the microfiltration process.

5. ENVIRONMENTAL ANALYSIS OF THE PROPOSED IMPROVEMENTS.

Section 1769 (a)(1)(E) of the Commission’s regulations requires an analysis of the impacts the modification may have on the environment. As explained below, there is no possibility that the improvements may have a significant effect on the environment.

The UV System will be housed completely within the existing water treatment building facilities. (See, Attachment A, Figure 2.) The installation will not result in any physical changes to the environment, and will therefore not have a significant effect on the environment.

The California Environmental Quality Act (“CEQA”) only applies to “projects,” which is a legal term that is defined in California Public Resources Code Section 21065. A “project” is

“an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following . . .
(c) An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.”

But for the Commission’s exclusive jurisdiction, the UV System would be installed without a building permit from the County. Moreover, even if a building permit would be required but for the Commission’s jurisdiction, the issuance of a building permit is a “ministerial action” (i.e., the County retains no discretion as to whether to issue the permit if the requirements set forth in local ordinances have been satisfied), and would be exempt from review under CEQA.²

With respect to the Cold Lime System, a third tank will be installed to complement the two existing tanks within the existing structures. To ensure efficient functioning of the Cold Lime System, HDPP will add a “bump out” of only approximately 426 square feet to the existing structure. Such a small structural alteration fits within existing CEQA exemptions. Specifically, Section 15301 of the CEQA Guidelines contains the following categorical exemption: “the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, *involving negligible or no expansion of use* beyond that existing at the time of the lead agency’s determination.” (Emphasis added.) The key consideration is whether the Project involves “negligible or no expansion of an existing use.” The minor alteration to the building for the Cold Lime System falls within the existing facility exemption provided for in Subsection 15301(e): “Additions to existing structures provided that the addition will not result in an increase of more than: (1) 50 percent of the floor area of the structures before the addition, or 2,500 square feet, whichever is less; or 10,000 square feet if: (A) The project is in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan, and (B) The area in which the project is located is not environmentally sensitive.”

In this case, the improvements will not result in an increase of either 50 percent of the floor area of the structure before the addition, or 2,500 square feet. Moreover, the Project is in an area designated or industrial use, and the Project is not located in an environmentally sensitive area. Thus, the minor alteration of the existing structure to accommodate the Cold Lime system constitutes a negligible expansion of an existing use, and is categorically exempt from environmental review under CEQA.

To further document that there is no possibility that the improvements to the Cold Lime System will have a potentially significant effect on the environment and thus facilitate the staff approved modification request, we discuss below the potential impacts that could be associated with the Cold Lime System’s addition of the third tank, and explain how such impacts will not result in a significant, or potentially significant impact to the environment or human health.

² Cal. Pub. Res. Code Sec. 12080(b)(1) states that CEQA does not apply to “Ministerial projects proposed to be carried out or approved by public agencies”. *See also*: CEQA Guideline Sec. 15268(a); according to CEQA Guideline Sec. 15268(b)(1), building permits are presumed to be ministerial actions.

Air Quality and Public Health

The addition of approximately 426 square feet to the existing structure to house the Cold Lime System will involve the use of some minor equipment for a very limited time period. These potential emissions are temporary and negligible. Installation of the Cold Lime System will not result in any changes to the potential emissions levels or types of emissions generated by the Project. The Project will continue to comply with all permitted emissions levels; therefore no permits or approvals are required from the Air District. The bump out addition is on already paved asphalt, meaning no fugitive dust will be generated. The potential impacts will be less than significant. Therefore, there will be no adverse air quality or public health impacts from the improvements.

Biological Resources

The Cold Lime System will be installed on asphalt within the boundaries of the existing powerplant. There are no sensitive or critical habitats located on the Project site. The improvements will not conflict with any local policies or ordinances protecting biological resources, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan. The potential impacts to biological resources are less than significant.

Cultural and Paleontological Resources

The Cold Lime System will be installed on highly disturbed and previously developed asphalt. The site is completely stabilized. The Project Owner will continue to comply with all cultural resources and paleontology conditions of certification during installation of the System, which will ensure that any potential impacts to unknown cultural or paleontological resources are less than significant. Therefore, there will be no adverse impacts to cultural or paleontological resources from the improvements.

Hazardous Materials Management

Sodium hydroxide (NaOH, 50%) will continue to be used by HDPP for pH control in the Cold Lime System. Weak citric acid (10%) will be used periodically to clean the UV System. Additional quantities of these chemicals above those currently stored will not be required. All hazardous materials will continue to be managed in accordance with Cal OSHA and other applicable regulations consistent with other hazardous materials management practices employed at the Project. Best management practices and compliance with all applicable LORS will ensure that the improvements will not have significant impacts.

Land Use

HDPP is located within an industrial zoned area. The surrounding uses are also industrial. No impacts to land use will occur from the requested improvements.

Noise

Installation of the Cold Lime System might result in temporary and minor noise impacts, mainly resulting from the use of equipment loading or offloading materials. Any noise impacts resulting from construction will be short-term and less than significant. Additional noise during operation should be negligible because all new equipment will be inside of the building.

Socioeconomics

The Cold Lime System will have minor, positive economic benefits, providing employment for the contractor and staff selected to perform the construction. Some materials may be acquired locally, but the positive economic benefits associated with such short-term work are difficult to ascertain, yet positive. There will be no significant socioeconomic impacts associated with installation of the Cold Lime System.

Soil and Water Resources

The entire site is zoned industrial, and is currently paved and graveled. No special activities are required for use or subsequently to return it to its current condition once the installation of the Cold Lime System is completed. Storm water BMPs and fugitive dust control already in place will be used. Furthermore, the improvements will not increase the amount of water used by the Project. In fact, the improvements are part of HDPT's endeavor to increase the efficiency of overall water use (i.e., less water used per MWhr of generation through efficiency improvements) which will allow for increased usage of reclaimed water. Therefore, there will be no adverse significant impacts to soil and water resources.

Traffic & Transportation

The short-term temporary work will result in a few additional truck and vehicle trips for the work crews. The roads in the vicinity all operate at adequate levels of service (LOS). There is no possibility that these few vehicle trips could significantly affect local or regional traffic patterns in this industrially zoned area. The activities proposed in this Petition will not create a significant adverse impact to traffic and transportation resources.

Visual Resources

Construction related impacts from the Cold Lime System will be temporary and less than significant from a visual perspective. The small "pop out" will screen the tank from off-site viewers. The construction activities will be consistent with other activities in this industrial zone area. The Project is located in an industrial area, and the minor addition to the existing structure to accommodate the Cold Lime System will be consistent with the industrial character of the area. The installation of the Cold Lime System will not impact any scenic resources. Therefore, there will be no impacts to visual resources.

6. **COMPLIANCE WITH APPLICABLE LAWS, ORDINANCES, REGULATIONS AND STANDARDS**

Section 1769(a)(1)(F) of the Commission's regulations requires a discussion of the impact of the modification on the Project's ability to comply with applicable LORS. The improvements will not impact the Project's ability to comply with applicable LORS, and will be built and operated consistent with all conditions of certification in the Final Decision. Therefore, the improvements will not impact the Project's ability to comply with applicable LORS.

7. **POTENTIAL EFFECTS ON THE PUBLIC RELATED TO THE PROPOSED AMENDMENT**

Section 1769(a)(1)(G) requires a discussion of whether the modification affects the public. As discussed above in Section 6 the improvements will not result in any significant physical changes to the environment, and will not result in adverse environmental impacts. Therefore, the improvements will not adversely affect the public and will not change the conclusions regarding the environmental or public health impact of the Project contained in the Final Decision.

8. **POTENTIAL EFFECTS ON PROPERTY OWNERS RELATED TO THE PROPOSED AMENDMENT AND LIST OF PROPERTY OWNERS**

Section 1769(a)(1)(H) requires a list of property owners potentially affected by the modification. The UV System improvements are housed within the existing water treatment facility and the Cold Lime System improvements are all within the HDPP project site. No property owners will be affected by the improvements. However, a list of property owners has been previously submitted to the Commission, and can be provided to Commission Staff upon request.

9. **CONCLUSION**

The improvements for the UV System and the Cold Lime System will not result in significant environmental impacts, and will not affect the Project's compliance with applicable LORS. Approval of the improvements will benefit the efficiency and overall performance of the Project. Therefore, pursuant to Section 1769(a)(2) of the Commission's Regulations, Staff should find that Commission approval of the proposed improvements to the existing water treatment system is not required. HDPT requests that Commission Staff issue its determination by August 22, 2014, to facilitate the timely installation of these improvements.

Sincerely,



High Desert Power Trust

By: High Desert Power Project, LLC,
Certificate Trustee

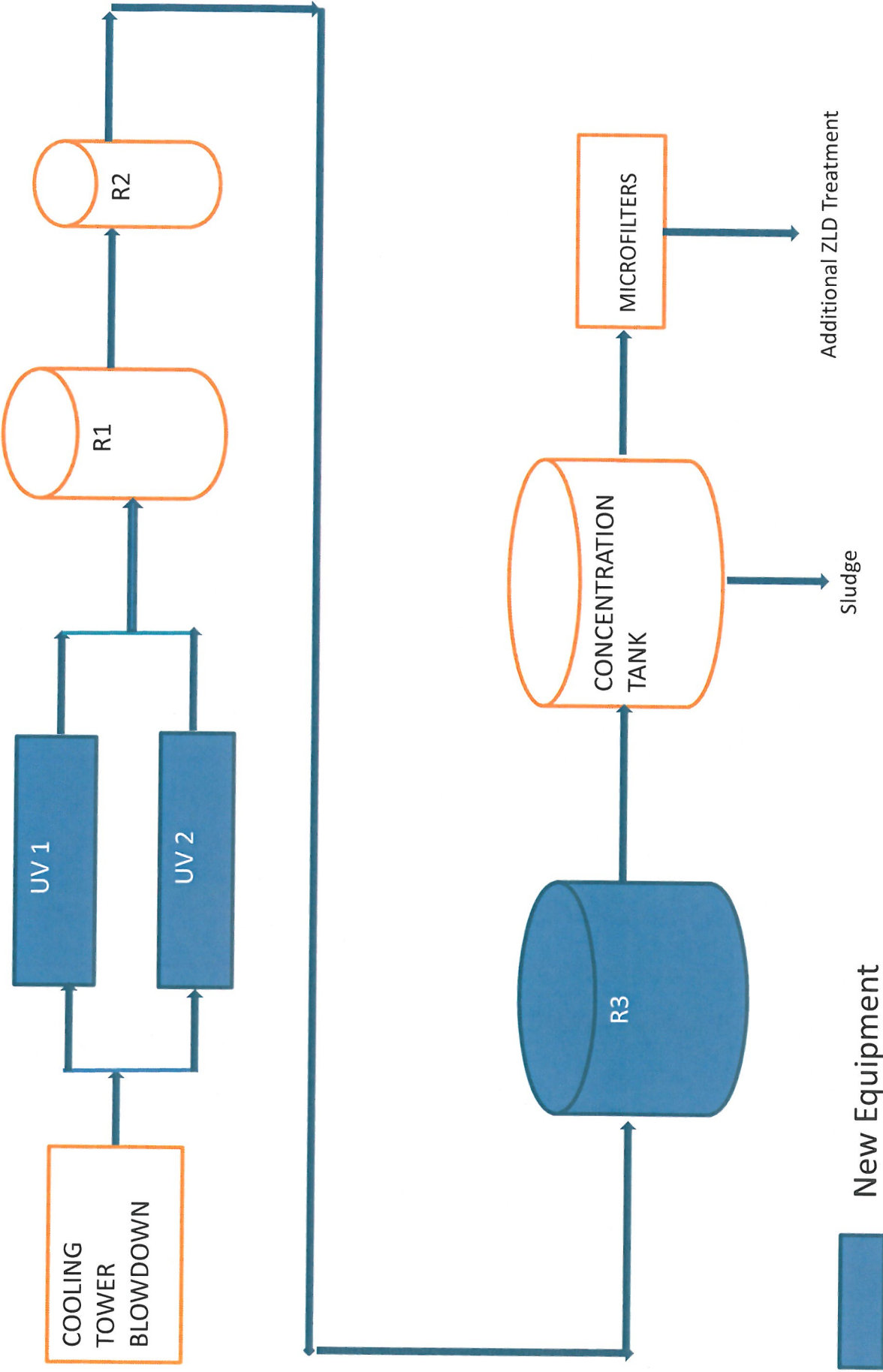
Bradley K. Heisey
Senior Vice President

ATTACHMENT A

**HIGH DESERT POWER PROJECT (97-AFC-1C)
PETITION FOR STAFF APPROVED MODIFICATION**

FIGURES

Figure 1 – Schematic of Water Treatment Equipment



North
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Figure 2 – Location of Water Treatment Equipment

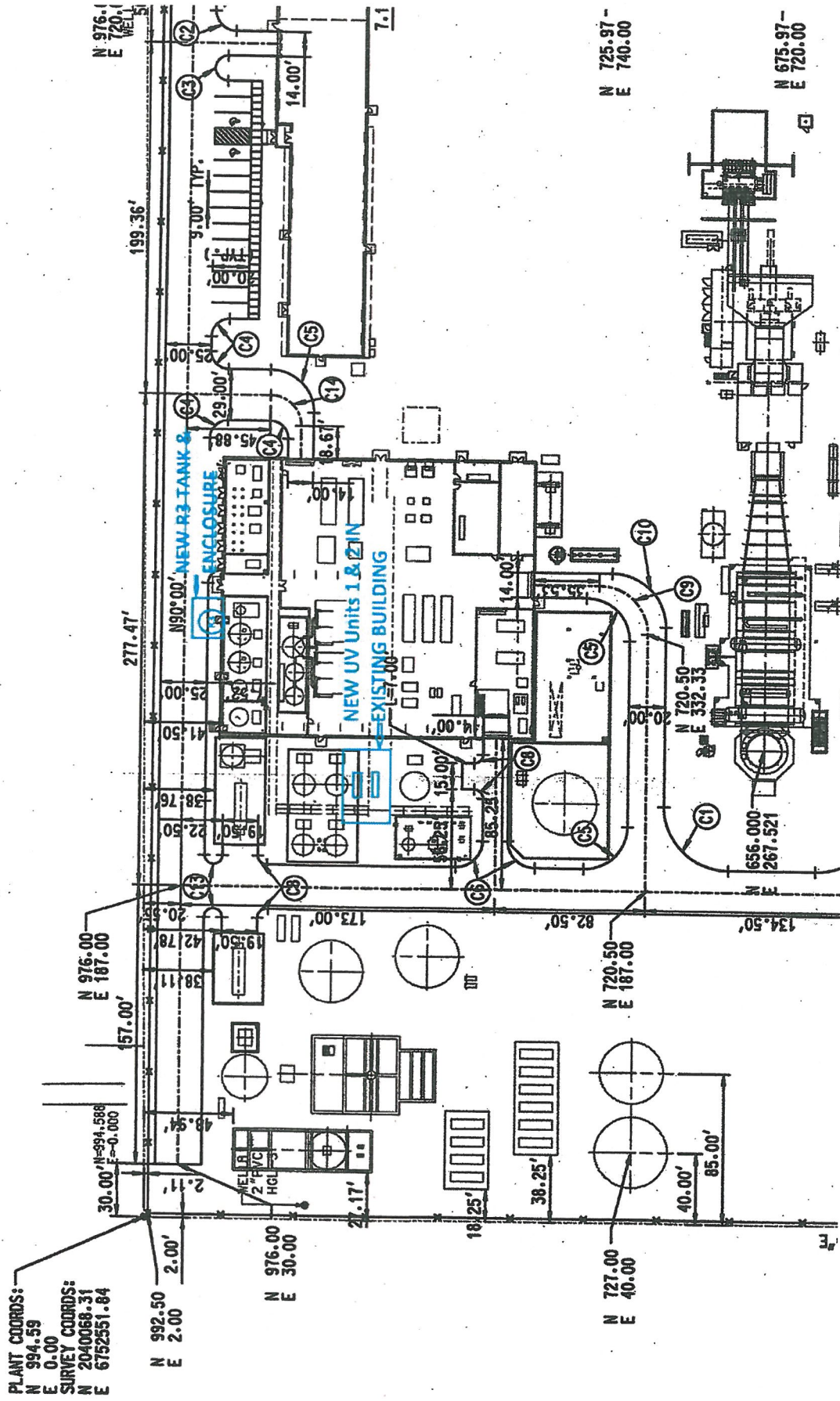


Figure 3 – Cold Lime System Layout (Detail)

