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Symbol: EPC-DO: 20-190
LAUR: 20-24316
Locates Action No: N/A
Date: JUN 22 2020

Mr. James Nellessen, Ph.D.
Environmental Scientist
Major Source Permit Specialist
New Mexico Environment Department, Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

Subject: Notification of Change of Equipment Vendor for LANL Auxiliary Boilers for CHP Power Plant Phase 1 – NSR Permit ID – 2195B-M3 dated July 26, 2018

Dear Dr. Nellessen:

As we have discussed by phone, LANL has changed the manufacturer for the Auxiliary Boilers to be installed at the TA-3 power plant, as originally described in Permit No. 2195B-M3. With this letter we are providing clarifying information regarding the change in manufacturer, but also specifying that the boilers will meet all the requirements as specified in the permit application and permit.

As stated in the permit in section A102 Facility: Description:

C. The modification will occur in three phases. The estimated time frame to complete the entire project is 5 years.

During Phase 1 the power plant will consist of three boilers, one combustion turbine, and minor NSR exempt equipment. In Phase 1 two new auxiliary boilers are authorized for construction (Units TA-3-22-4 and TA-3-22-5) and two of the existing boilers (TA-3-22-1 and TA-3-22-2) will be permanently shut down.

Table 104A: Regulated Sources List Phase 1 (in original application and resulting permit)

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity and Permitted Capacity
TA-3-22-4	Boiler	Cleaver Brooks	CBEX Elite	TBD	TBD	TBD	72.3 MMBtu/hr
TA-3-22-5	Boiler	Cleaver Brooks	CBEX Elite	TBD	TBD	TBD	72.3 MMBtu/hr

The two new boilers that LANL has chosen are manufactured by Victory Energy LLC in Oklahoma. These are identical for all engineering specifications as the originally proposed boilers specified for the Cleaver Brooks Model CBEX Elite units for the 2018 permit. The locations for the two Victory Energy units will remain the same as the information described in the attachment for Sections 4 and 5 and Table 2-H as submitted as part of the original permit application. The emission estimates for these units will also remain the same as the original permit application.

In summary, there are no variances in the specifications of these units based on the energy rating, unit placement, stack parameters or emission estimates. An updated Table 2-A for the revised permit application is provided with this submittal. Manufacture of the units was completed on August 27, 2019 and are planned for installation in February 2021.

If you have any questions or comments regarding this revised information or would like to discuss the information in greater detail, please contact Stephen Pierett at (540) 250-1656.

Sincerely,

Taunia S. Van Valkenburg
Group Leader

TVV/AMD/SP:jdm

Attachment(s): Attachment 1 Revised Table 2-A
Attachment 2 Unrevised Section 4 and 5, and Table 2-H pdf

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Attachment 1

Revised Table 2-A

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Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number[1]	Source Description	Make	Model #	Serial #	Manufacturer's Rated Capacity[3] (Specify Units)	Requested Permitted Capacity[3] (Specify Units)	Date of Manufacture[2] / Date of Construction/ Reconstruction[2]	Controlled by Unit # / Emissions vented to Stack #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB)[4]	Replacing Unit No.
Phase 1												
TA-3-22-3	Boiler	Union Iron Works	N/A	11804	210 MMBtu/hr	178.5 MMBtu/hr	1952 1952	F-3 TA3_S2		x Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-4	Boiler	Victory Energy Operations	F2-WB-1800-S150E	14974-1	72.3 MMBtu/hr	72.3 MMBtu/hr	8/27/2019 TBD[5]	N/A TA3_S3		☐ Existing (unchanged) ☐ To be Removed x New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-5	Boiler	Victory Energy Operations	F2-WB-1800-S150E	14974-2	72.3 MMBtu/hr	72.3 MMBtu/hr	8/27/2019 TBD[5]	N/A TA3_S4		☐ Existing (unchanged) ☐ To be Removed x New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-1	Boiler	Edgemoor Iron Works	N/A	4008	210 MMBtu/hr	178.5 MMBtu/hr	1950 1950	F-1 TA3_S1		☐ Existing (unchanged) x To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-2	Boiler	Edgemoor Iron Works	N/A	4009	210 MMBtu/hr	178.5 MMBtu/hr	1950 1950	F-2 TA3_S1		☐ Existing (unchanged) x To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-CT-1	Combustion Turbine	Rolls-Royce	RB211-6761 DLE	2011	32 MW	27 MW	2003 2005	DLE TA3_CT		☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit x To Be Modified ☐ To be Replaced	N/A	N/A
Phase 3												
TA-3-22-3	Boiler	Union Iron Works	N/A	11804	210 MMBtu/hr	178.5 MMBtu/hr	1952 1952	F-3 TA3_S2		☐ Existing (unchanged) x To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-4	Boiler	Victory Energy Operations	F2-WB-1800-S150E	14974-1	72.3 MMBtu/hr	72.3 MMBtu/hr	8/27/2019 TBD[5]	N/A TA3_S3		x Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-5	Boiler	Victory Energy Operations	F2-WB-1800-S150E	14974-2	72.3 MMBtu/hr	72.3 MMBtu/hr	8/27/2019 TBD[5]	N/A TA3_S4		x Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
TA-3-22-CHP-1	Combined Heat and Power	Rolls-Royce/TBD[5]	RB211-6761 DLE/TBD[5]	2011/TBD[5]	32 MW	27 MW	2003/TBD[5] 2005/TBD[5]	HRSG TA3_HRSG		☐ Existing (unchanged) ☐ To be Removed x New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		

[1] Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.
[2] Specify dates required to determine regulatory applicability.
[3] To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.
[4] "4SLB" means four stroke lean burn engine, "4SRB" means four stroke rich burn engine, "2SLB" means two stroke lean burn engine, "CI" means compression ignition, and "SI" means spark ignition

Applicant Notes

[5] TBD = To Be Determined, information regarding the make, model, serial number and dates of manufacture will be provided at a later date under separate cover.

Attachment 2

Unrevised Section 4 and 5, Table 2-H pdf

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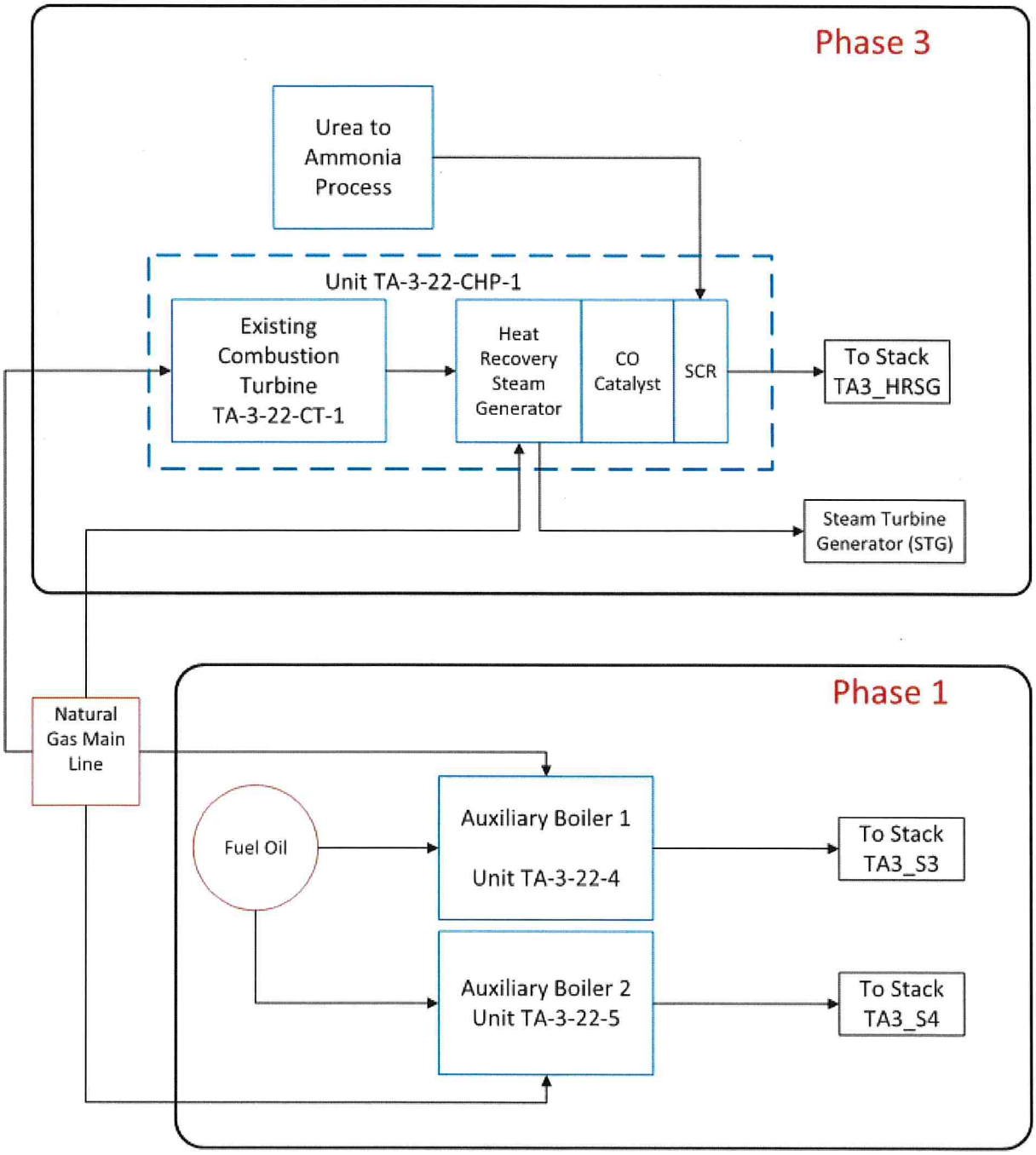
Section 4

Process Flow Sheet

A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.



Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.

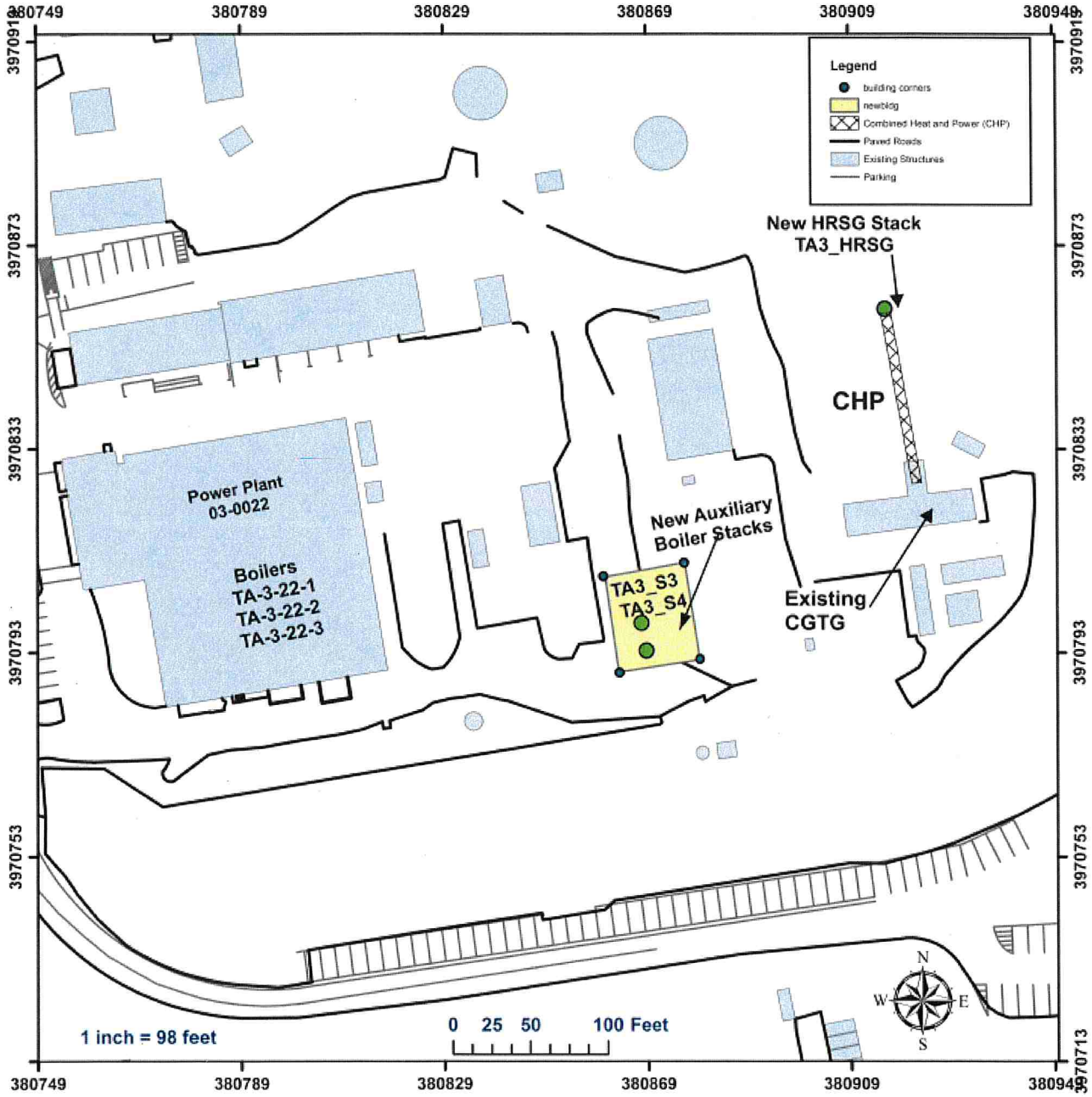


Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions. If the facility has multiple operating scenarios, complete a separate Table 2-H for each scenario and, for each, type scenario name here:

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
TA3_3	TA-3-22-4	V	No	60	344	500			52.0	3.5
TA3_4	TA-3-22-5	V	No	60	344	500			52.0	3.5
TA3_2	TA-3-22-3	V	No	68	415	1,333			28.6	7.7
TA3_CT	TA-3-22-CT-1	V	No	59	921	7,362			73.6	11.3
TA3_HRSG	TA-3-22-CHP-1	V	No	110	170	3,718			58.4	9.0