REQUEST LETTER

05-010

NAME
ADDRESS

Subject: COMPANY A Request for Private Letter Ruling

Dear Commissioner Johnson:

I am writing to request a private letter ruling from the Tax Commission to ensure the applicability of the manufacturing machinery and equipment sales tax exemption to COMPANY A a power plant in CITY, COUNTY, Utah. Currently, COMPANY A is a single-cycle combustion turbine plant that produces approximately 65 Megawatts of electricity, but it is converting to a combined-cycle combustion turbine cogeneration plant that will produce approximately 95 Megawatts of power. The plant qualifies as a cogenerator and "qualifying facility" under the federal Public Utility Regulatory Policy Act, and will manufacture electricity, steam and water for sale.

The plant expansion will require that COMPANY A purchase expensive equipment including a steam turbine and generator set, a heat recovery steam generator, additional transformers, electrical breakers, prefabricated enclosures and buildings, cooling towers, water treatment facilities, pumps, and control equipment. Attached is an excerpt from a document used in financing the expansion of the plant that describes most of the equipment in greater detail that may be helpful.

As you know, Utah Code Ann. §59-12-104(14) provides a sales tax exemption for purchases of machinery and equipment that will have an economic life of at least three years and will be used to produce tangible personal property in a new or expanding facility in Utah. The equipment COMPANY A will purchase will have an economic life far in excess of three years, and it will be used to manufacture tangible personal property. The definition of tangible personal property in Utah Code Ann. §59-12-102(80)(b) includes electricity, water, and steam, all three of which COMPANY A will produce for sale once it has completed its expansion in the first quarter of 2006.

The COMPANY A plant meets all of the criteria of the statute, but it does not squarely fit in any one of the SIC Codes between 2000 and 3999 of the 1987 Standard Industrial Classification Manual referenced in the definition of manufacturing facility in Utah Code Ann.§59-12-102(39). It is for this reason that COMPANY A is seeking a private letter ruling. In reviewing the statutory SIC Code range and the North American Industries Classification System Code, none of them addresses directly facilities that produce electricity, water, and steam, yet the Utah Code specifically itemizes those three products for which equipment purchased to produce them qualifies for the sales tax exemption. In other words, even though equipment purchased to manufacture electricity, water, or steam is exempt from the sales tax, under a narrow reading of the statute, no manufacturer can qualify for the exemption. Such a reading renders the exemption

meaningless and frustrates the purpose of the statue.

It is difficult to conceive of a situation where the equipment sales tax exemption should apply more appropriately than to the equipment COMPANY A will purchase. To summarize, COMPANY A is expanding its power plant with purchased equipment that will have an economic life much longer than three years. The plant will produce three items for resale in Utah that are on the list of tangible personal property in the Utah Code that qualify for the exemption. None of the SIC Codes in the statutory range addresses directly the production of electricity, water, or steam even though the Utah statute makes it clear that equipment purchased to produce them is exempt from the sales tax. If the Commission were to find that the exemption applies to equipment purchased to produce all three items for resale rather than to any one of them alone, the exemption would be very limited and that is the outcome COMPANY A is advocating. At this point, COMPANY A is probably the only manufacturing plant in the state that would qualify for such an exemption. Should you have any questions or wish to discuss any of these points, please do not hesitate to contact me.

COMPANY A requests any expedited consideration you can give this request. COMPANY A has already broken on its expansion and will begin acquiring equipment for the expansion. Thus, earlier disposition of this request will be beneficial to the project.

Thank you for your consideration of this important issue.

Sincerely,

COMPANY
NAME

Excerpt from COMPANY A Private Placement Memorandum

Description of New Assets

Steam Turbine and Generator Set (STG)

The Company has purchased from COMPANY B, a subsidiary of COMPANY C., a 35 MW GE skid-mounted unit STG manufactured in 1991 and rebuilt in 1999 by COMPANY D as its CITY facility. The unit was formerly part of COMPANY C generation operation located at COMPANY E plant in CITY . A steam path audit of the STG will also be performed by COMPANY D and any required rework (such as seals) will be completed prior to operation of the unit.

The steam turbine-generator is rated at 35.335 MW (nominal) based on the HRSG design, at an ambient temperature of 59° F, 60% relative humidity, and the supply of 40,000 lb/hr to the thermal host. The turbine is a dual-pressure machine that receives high-pressure, superheated steam from the high-pressure section of the HRSG and intermediate-pressure, saturated steam from the intermediate-pressure section of the HRSG. The exhaust from the turbine goes to a surface condenser. The generator is a direct-driven 13.8-kV, 60-Hz synchronous machine with brushless excitation. The steam turbine-generator includes all valves, a lube oil system, controls,

and a hydraulic oil control system.

Heat Recovery Steam Generator (HRSG)

The Company has purchased from COMPANY F a new, high-efficiency HRSG that was originally designed and built by IHI for a larger plant (COMPANY F CITY, STATE plant, which was never completed). The Company is awaiting approval and purchase of the sale by the bankruptcy court administering the COMPANY F proceedings. COMPANY G of ANOTHER STATE has completed a modification study of the HRSG and will engineer and stamp all required modifications to the HRSG; their study indicates that the HRSG will deliver significant efficiencies and enhance the performance of the overall plant. The HRSG provides a beneficial match for the facility because it has been designed to accommodate cycling operations.

The exhaust from each of the gas turbines will be ducted to this single HRSG. The ductwork will be insulated and lagged with stainless steel liner. Isolation dampers will be provided to allow isolation during startup and for short periods when only one gas turbine is operating.

The HRSG is a natural-circulation, drum-type boiler that was originally designed to produce steam at three pressure levels from the exhaust gases from a Mitsubishi 501F. The exhaust gas flow rate and temperature from the Mitsubishi 501F is substantially greater than the flow from two GE Frame 6B gas turbines. In addition, the original HRSG design contained a reheat section that is not required by this project. In essence the HRSG contained excessive surface area and inappropriate steam path circuiting for the Desert Power Facility.

Under the direction of COMPANY H, COMPANY G was retained to design modifications to the HRSG for this project. The HRSG modifications include removing surface area from the low-pressure economizer, and totally removing the low-pressure superheater, the intermediate-superheater, and the reheat sections. In addition, a continuous feedwater re-circulation system was added to re-circulate a portion of the low-pressure economizer flow with the low temperature condensate. This arrangement is designed to maintain an economizer feedwater inlet temperature of 1400F. This feature may result in corrosion of the carbon steel economizer tubes from sulfuric acid condensation. This can happen because the natural gas fuel contains mercaptan, a sulfur bearing odorant used in natural gas for safety purposes. The combustion of the mercaptan in the gas turbine produces sulfur dioxide and sulfur trioxide which cause a significant elevation in the dew point of the exhaust gases. Condensation of sulfuric acid on the carbon steel economizer tubes can cause corrosion and premature failure. Corrosion resistant stainless steel tubes and tube sheets are normally used in this type of application.

The redesigned HRSG is designed to generate 249,800 lb/hr of high-pressure steam at 1600 psia, 930°F and 59,360 lb/hr of intermediate-pressure steam at 260 psi, 405ºF by reducing the gas turbine exhaust gas temperature from 1015ºF to 253ºF. This performance is based on operations at an ambient temperature of 59ºF and the supply of 40,000 lb/hr of intermediate pressure steam to the thermal host.

A new 145 foot exhaust stack, with ladders and damper, is being purchased to vent the exhaust from the combustion turbine after it is moved through the HRSG to generate steam.

Boiler feed pumps to feed the water into the boiler tubes are also being purchased. These pumps are large scale umps moving several hundred gallons per minute each. Additional pumps and valves to support operation of the HRSG are being purchased.

Condenser

The condenser is a single-shell, two-pass, surface condenser that is currently installed with the steam turbine in CITY, STATE. The condenser currently uses stainless steel tubes that will be replaced because of high chloride concentration in the circulating water. The condenser will be re-tubed with Admiralty (SB543) and the existing stainless steel tube sheet will be coated with Plesticor, a 200 mil molded epoxy overlay to prevent corrosion. A steam-jet air ejector will be used to evacuate and maintain condenser vacuum. The condenser is designed to maintain a turbine exhaust backpressure of 2.0 inches Hga. Pumps and valves to support the operation of the condenser are being acquired.

Condensate System

Two full-capacity condensate pumps deliver condensate from the condenser. The condensate pumps were previously used with the steam condenser. The condensate is used to provide cooling to the steam-jet air ejector and the gland steam condenser. Condensate is delivered to the low-pressure economizer and the integral deaerator. Recirculation pumps are used to maintain the economizer inlet temperature at 140^{o}F. The condensate system is a standard design with the exception of the condensate recirculation pumps.

Cooling Tower and Circulating Water Systems

A four-cell, mechanical-draft, wood frame, evaporative cooling tower will be used to reject the waste heat from the steam turbine and to provide cooling water for miscellaneous services.

The cooling tower is used and was last rebuilt in 1998 with minimal use since then. Wood cooling towers if properly constructed of suitable materials can be expected to have a life of approximately 15 years. Because of the corrosive and fouling nature of the circulating water, the materials of construction will be reviewed because it is part of a larger installation, any parts that need replacement will be substituted out so as to insure long-term integrity of the tower. This tower is currently installed in CITY, STATE, and will have to be disassembled and moved to the COMPANY A site. Two 50-percent capacity circulating water pumps, an acid feed system for pH control, and a sodium hypochlorite (NaOCI) system for biological fouling control will be provided.

The cooling tower is designed to provide cooling at design ambient conditions for all auxiliary plant and condenser loads at zero turbine extraction flow. The cooling tower makeup water will be filtered raw water. There will be a drenching firefighting system installed on the tower. In addition, the circulating water systems will support a full fire system that will be installed throughout the plant.

Transformers

New transformers are being acquired to support the expansion. These include a new main transformer, 13.8 KV to 138 KV, designed to deliver power produced by the steam turbine and generator set to the COMPANY I system. Also included are smaller transformers, 13.8 KV to 480 V, to deliver power to the smaller ancilliary motors.

Included in this installation will be new metering, busbar, breakers, switches and other ancillary equipment designed to effect the deliveries. Also included will be the wiring necessary to interconnect these transformers as well as to connect the motors and control systems.

Ancillary Motors

Many ancillary motors will be acquired, including starter motors, pumps, pressure motors, air compressors and other type motors and systems, to support the operation of the facility.

Compressors

To support delivery of the volumes of gas required for reliable operation, COMPANY A will acquire gas compressors to be installed. Part of the installation will include the fin fan coolers to provide cooling for the compressors, flare incinerators and other ancillary equipment.

Emergency Generator

The main control and system lighting and internal systems will be supported by a diesel-fueled emergency generator.

Other Equipment

Among other equipment to be acquired are water tanks and pump systems, water treatment and distillation systems, water disposal systems, cooling systems, including chiller units to cool the inlet air to the combustion turbines, heat exchangers, air conditioning units for the buildings in which the control systems will be housed, the control systems and excitation systems, and all the other ancillary equipment necessary to the operation of the plant. In addition, there are the hangers, rebar, and construction materials, piping and other incorporated elements of the structures and machinery. Major parts in the hot path of the turbine section are being replaced or refurbished as part of a systematic maintenance program to ensure a parts life exceeding 5 years when the turbines are put back into service.

RESPONSE LETTER

January 11, 2006

NAME
ADDRESS

RE: Private Letter Ruling Request – Machinery and Equipment Purchases for a Power Plant that Generates Electricity

Dear Mr. NAME,

We have received your private letter ruling request concerning the purchase of machinery and equipment by COMPANY A, which operates a power plant in Utah that generates electricity for sale. You indicate that COMPANY A plans to purchase equipment and machinery to expand its power plant and increase its capacity to produce electricity for sale. Specifically, you ask the Commission to rule whether or not COMPANY A purchase of machinery and equipment for these purposes qualifies for exemption from sales tax under Utah Code Ann. §59-12-104(14).

Pursuant to Section 59-12-104(14)(a), an exemption is available on purchases or leases by a manufacturer of machinery or equipment, but only if that machinery and equipment is: 1) used in the manufacturing process; 2) has an economic life of three or more years; 3) is used to manufacture an item sold as tangible personal property; 4) is used in new or expanding operations; and 5) is used in a manufacturing facility in Utah. You have shown that some of the elements required to qualify for the exemption exists, such as the plant producing tangible personal property for sale. However, if any one of these elements does not exist, the purchase or lease does not qualify for exemption. Furthermore, should there be any ambiguity concerning taxation, the Commission must construe an exemption from taxation narrowly against the taxpayer in favor of taxation in accordance with decisions issued by the Utah Supreme Court.

One of the required elements listed in the previous paragraph is that the machinery and equipment at issue must be used in a manufacturing facility. UCA §59-12-102(40) provides criteria to determine whether a facility is a "manufacturing facility" for purposes of the manufacturing machinery and equipment exemption, as follows in pertinent part:

> For purposes of Subsection 59-12-104(14), "manufacturing facility" means:
> (a) an establishment described in SIC Codes 2000 to 3999 of the 1987 Standard Industrial Classification Manual of the federal Executive Office of the President, Office of Management and Budget; or
> (b) a scrap recycler . . . .

In accordance with Section 59-12-102(40), your client's power plant must either be an establishment primarily engaged in the activities described in SIC Codes 2000 to 3999 of the 1987 Standard Industrial Classification Manual ("1987 SIC Manual") or, under certain circumstances, be a scrap recycler before the machinery and equipment at issue may qualify for exemption. COMPANY A is not a scrap recycler. Accordingly, COMPANY A plant may only qualify as a manufacturing facility, for purposes of the exemption, is if it is primarily engaged in an activity and, thus, is an establishment described in SIC Codes 2000 to 3999.[1]

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1 In your letter, you refer to the North American Industries Classification System Code ("NAICS Codes"). Although the NAICS Codes is another system used to classify establishments, Utah law relies only upon the SIC Codes to determine whether an establishment is a "manufacturing facility" for purposes of the manufacturing machinery and equipment exemption at this time. Accordingly, the power

You state that COMPANY A plant "does not squarely fit in any one of the SIC Codes between 2000 and 3999 of the 1987 Standard Industrial Classification Manual." The Commission agrees that COMPANY A plant is not primarily engaged in an activity that is classified as establishment described in SIC Codes 2000 to 3999 of the 1987 SIC Manual. Instead, the Commission believes that SIC Code 4911 (Electric Services), which is described to include those "[e]stablishments engaged in the generation, transmission, and /or distribution of electric energy for sale[,]" best describes the primary activity engaged in and the establishment operated by COMPANY A at its Utah power plant. For these reasons, the Commission finds that COMPANY A plant is not a "manufacturing facility," as defined for purposes of the exemption.

Because COMPANY A plant is not a manufacturing facility for purposes of the exemption, its purchases of machinery and equipment for use at the plant do not meet all of the elements necessary to qualify for exemption from sales tax under Section 59-12-104(14). Such a ruling is consistent with past Commission rulings where the exemption has been disallowed for manufacturers that manufacture tangible personal property for sale and yet are not classified in SIC Codes 2000 to 3999 of the 1987 SIC Manual. Please contact us should you have any other questions.

For the Commission,

Marc B. Johnson
Commissioner

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05-010

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plant's classification as described in the NAICS Codes is currently irrelevant to our ruling. Should the Legislature expand the SIC Codes applicable to the exemption to include a code that describes or substitute the SIC Codes with NAICS Codes that include one that describes Desert Power, the Commission's response might be different.