ARCO Prudhoe SIP 36

M/S 532

AUG 15 1984

Lynn Billington
Sohio Alaska Petroleum Company
3111 C Street
Anchorage, Alaska 99502

Dear Ms. Billington:

We have reviewed your request of August 1, 1984 to postpone compliance source tests for the Zurn waste heat recovery unit and the Sulzer turbine for PSD permit Nos. PSD - X80 - 09 and PSD - X81 - 01. It is your contention that since there has not been enough produced water to require the operation of these units, a delay in compliance testing of these units is desired.

While the Produced Water Injection (PWI) facilities should be tested within 180 days after initial start up of the expansion project, we are sensitive to your present circumstances. Therefore, until there is a greater increase in the production rate to sufficiently test the use of these units, a postponement is granted.

If you have any questions please feel free to contact Ray Nye of my staff at (206) 442-8574.

Sincerely,

Michael M. Johnston, Chief
Air Operations Section

cc: Dave Estes, ADEC
Kathy Pazera, AOO

Draft:Nye:jj:8/9/84 6322X
Final:Nye:jj:8/14/84

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M/S 532

AUG 15 1984

Scott Ronsio
ARCO Alaska, Inc.
P.O. Box 100360
Anchorage, Alaska 99510

Dear Mr. Ronsio:

We have reviewed your request of August 1, 1984 to postpone compliance source tests for the Zurn waste heat recovery unit and the Sulzer turbine for PSD permit Nos. PSD - X80 - 09 and PSD - X81 - 01. It is your contention that since there has not been enough produced water to require the operation of these units, a delay in compliance testing of these units is desired.

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Sincerely,

Michael M. Johnston, Chief
Air Operations Section

cc: Dave Estes, ADEC
Kathy Pazera, AOO

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CONCURRENCES

SYMBOL	RCN							
SURNAME	Nye							
DATE	8/14/84							

EPA Form 1320-1 (12-70)

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GPO : 1983 O - 403-201

Ray
Sharon

RECEIVED
AUG 6 1984
AIR PROGRAMS
BRANCH

August 1, 1984
cc #171,905

Mr. Michael Johnston
Chief, Air Operations Section
Region X
1200 Sixth Avenue
Seattle, Washington 98101

Subject: Air Emissions Compliance Testing
for Prudhoe Bay, Alaska Oil Field Facilities
Permit Nos. PSD-X80-09 & PSD-X81-01

Dear Michael Johnston:

This letter is to review the Air Emission Source Testing plan discussed at our meeting with EPA on July 20, 1984. The air testing is planned to start on August 29, 1984 in the Western Operating area and continue through the first part of September testing the Eastern Operating area sources. The equipment proposed to be tested in the test plan is listed below:

1. General Electric 35,000 HP Turbine at Gathering Center 2 (GC-2).
2. Zurn Waste Heat Recovery Unit rated at 16.8 MM Btu/hr at GC-2.
3. Cleaver Brooks Heater rated at 33.5 MM Btu/hr at GC-2.
4. Lummus Heater rated at 120 MM Btu/hr at the Seawater Treatment Plant (STP).
5. Broach Heater rated at 67.5 MM Btu/hr at the Seawater Injection Plant (SIP).
6. Ruston turbine rated at 2500 HP at the SIP.
7. Cooper-Rolls turbine rated at 29,000 HP at the SIP.
8. Econotherm supplemental fired waste heat recovery unit rated at 185 MM Btu/hr at the SIP.

The operational constraints in testing some of this equipment was reviewed with Paul Boys and Lee Marshall of the EPA Region X office.

Below the unit constraints are summarized:

1. The Zurn Waste Recovery Units are not in operation. These units were designed to be used to heat an oil-water mixture. At this time the amount of oil and water being processed is lower than previously predicted so that the units are not needed. There is not expected to be a need for these units for at least another few years.
2. The Broach heater units are designed for use during the worst cold weather conditions. Serious problems could occur if the heat generated from these units could not be dissipated. Operations is examining ways to balance the heat loads with the SIP to allow testing this heater in September.
3. The Cooper Rolls Turbines are used for water injection. The water volume demand may limit fully loading the turbines which would effect the tests.
4. The Econotherm supplemental fired waste heater recover units are connected to the Cooper Rolls turbines and used for process heat. In order to do this test temperature balancing will have to occur between the STP outflow and the SIP heat. This balancing process is being examined to see if it is feasible for the test.

In addition to these units the test plans last year included a Sulzer 7770 HP turbine and a Ruston 4900 HP (TB-5000) turbine. The Sulzer turbine is part of the Produced Water Injection facilities which are not yet in operation. The start up of these facilities has been postponed until late 1984, since there has not been enough produced water to operate these facilities. The Ruston TB-5000 turbines were exempted from testing in the Prudhoe Bay field by the letter from Michael Johnston to Al Schuyler on October 25, 1983. These two turbines are specifically mentioned since they are listed in the letter of November 3, 1983 from Alexandra B. Smith, EPA, requiring that these turbines be tested by September 30, 1984.

A delay in testing the Zurn Waste Heat Recovery Unit and the Sulzer turbine is requested. We will keep in close contact with your office as we receive information on testing the Broach heater, the Cooper Rolls turbine and the Econotherm waste heat recovery unit. If you have any questions please call us (Lynn 564-4137 or Scott 265-6951).

Sincerely,

Lynn Billington
Lynn Billington
Sohio Alaska Petroleum Co.

Scott Ronzio
Scott Ronzio
Arco Alaska Inc.

cc: Sharon del Moral, EPA
Ray Nye, EPA
Paul Boys, EPA
Mr. Doug Lowery, ADEC

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