

**ALASKA OIL AND GAS
CONSERVATION COMMISSION**

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November 13, 1995

John Morgan
BP Exploration (Alaska), Inc.
P.O. Box 196612
Anchorage, AK 99519-6612

Re: GC2, S-pad, M-pad incidents

Dear Mr. Morgan:

The Commission has determined that operator negligence contributed to the emergency shutdown of Gathering Center 2 (GC-2) on February 3, 1995 as well as the pipe ruptures on S and M pads on February 3 and 5, 1995 respectively. The Commission has decided to classify as waste all gas flared as a result of the incidents. The amount of gas classified as waste includes all gas released into the atmosphere immediately upon and following the incidents, as well as all gas released while S and M pads were being depressurized for repairs. Also classified as waste is all gas flared as a consequence of facility repair and restart. Total volume classified as waste is 2,005 Mscf.

The Commission believes that the actions of several employees during the GC-2 shutdown and the pipe ruptures on S and M pads were negligent and represented a failure to carry out operations in a safe and skillful manner in accordance with industry practices, in violation of 20 AAC 25.526, and a failure to act in accordance with good oil field engineering practices and conservation purposes to minimize the volume of gas released or permitted to escape, in violation of 20 AAC 25.235(c). The Commission finds that these incidents were in large part attributable to human error.

On February 3, 1995 the first stage separator pressure transmitter at GC-2 was not properly safed out prior to executing a calibration. The GC-2 operator failed in his responsibility to heed the warning identified on the work order. This introduced a flaring event through the HP flare system. During the flare event, a total GC-2 stop production shutdown was initiated. The cause of the GC-2 stop production shutdown has never been fully determined.

A pipe rupture occurred on S-pad during the shutdown at GC-2, causing a gas release. While attempting to restart GC-2, the GC-2 board operator failed to see a fire/halon alert on the alarm system which was sent from S-pad. The board operator then sent a signal that opened an equalizing valve at the wellsite, causing a second gas release on S-pad. Production Control Center (PCC) personnel seemed aware of the alarms but failed to follow administrative procedures and close the communication loop with both the wellsite operator and GC-2 personnel. The wellsite operator failed to inform GC-2 personnel to curtail the signal which was opening the equalizing valve. This caused a third gas release when the air compressor was brought back up at the wellsite, supplying air pressure to the equalizing valve. The breakdown in communication between PCC personnel and the wellsite operator also prevented the wellsite operator from clearing non-essential personnel from S-pad during the event. It is likely that personnel would have been evacuated sooner if PCC had alerted the wellsite operator of the fire/halon alarms.

The Commission also believes that the operator failed to maintain corrosion inspection programs to adequately identify areas of severe wall loss and potential failure. This violated the requirement of 20 AAC 25.200 that all equipment be maintained in accordance with good established industry practice and the requirement of 20 AAC 25.526 that property be maintained at all times in a safe and skillful manner in accordance with industry practices.

The pipe rupture at S-pad occurred at a Large Diameter Flowline (LDF) collection header. BP Exploration (Alaska), Inc. (BPXA) stated that excess velocities and insufficient corrosion inhibition were the root cause of the pipe rupture at S-pad. The corrosion at S-pad had gone undetected because the piping was never inspected at that point. Pre-1995 well-pad corrosion inspection plans failed to include this area for inspection. The pipe wall was also of construction below specification and this may have contributed to the event.

On February 5, 1995 a pipe rupture at M-pad occurred directly below a scale inhibitor injection point, in a pipe trough on well M-06 flowline. The extensive corrosion found was consistent with chemical attack from the scale inhibitor. The last inspection of the scale inhibitor injection quill failed to scan the trough area of the pipe and did not identify any erosion of that area. The well was shut in for approximately two months after the last inspection, at which time the scale inhibitor injection valve should have been closed and tagged. The Commission was not given any data in support of this. At a meeting with the Commission, BPXA representatives also said that the extensive erosion could not have happened over a short period of time. This leads the Commission to infer that the scale inhibitor injection valve was left open while the well was shut in for an extended duration, leading to the pipe failure.

The Commission's determination of waste is made under authority of AS 31.05.030, AS 31.05.150, AS 31.05.170(14)(A) and (H), and 20 AAC 25.235. Under AS 31.05.150(e), the Commission may impose a penalty equal to the fair market value of the gas at the point of waste for all gas determined to be waste. In addition, under AS 31.05.150(a), the Commission may impose a civil penalty of up to \$5,000 dollars per day for each day of violation. Among the criteria the Commission considers in determining appropriate penalties under AS 31.05.150(a) are the following: 1) the good or bad faith of the operator in violating the statutes, regulations and orders of the Commission, 2) the injury to the public resulting from the violation, 3) the benefits derived by the operator from its violative activities, 4) the operator's ability to pay a penalty, and 5) the need to deter similar behavior by the violator and others and vindicate the authority of the Commission and the integrity of statutes, regulations and orders.

The Commission concludes that there was no bad faith, limited public injury (i.e., loss of resource), and no illicit benefit derived by BPXA from the incidents. While BPXA's ability to pay is significant, the Commission acknowledges the expense already incurred by BPXA in lost production and repair of the affected wellsites.

The Commission also recognizes the normally high operational standards of BPXA as well as BPXA's excellent response, thorough investigation into the events, and efforts directed to help prevent a reoccurrence. However, the Commission believes there is a need to deter similar behavior by the operator and others. It was fortuitous that no injuries occurred during these mishaps. Safety is integral to good oil field engineering practices in the State's oilfields. Therefore, the Commission assesses against BPXA a penalty of \$5,000 for the series of procedural errors and communication blunders made by BPXA personnel while attempting to restart GC-2 and control the S-pad pipe rupture on February 3, 1995. The Commission will not assess against BPXA any penalty for each day that the scale inhibitor injection valve was left open on the M-06

flowline while the well was shut in on M-pad. The Commission requests that the additional checks and procedural enhancements to prevent reoccurrence of these events be made available for review by Commission staff.

THEREFORE, IT IS ORDERED that all gas flared or vented as a result of these incidents be classified as waste and the total volume so classified is 2,005 Mscf. A penalty of \$1.00 per Mscf is assessed against BP Exploration (Alaska), Inc. for the wasted gas under the authority of AS 31.05.150(e). This value is derived from the February, 1995 weighted average of \$1.0032/Mscf for BPXA's Prudhoe Bay gas as determined by the producer's unaudited royalty reports for the month of February, 1995. The Commission's use of unaudited royalty report data for the purpose of assessing this penalty does not constitute a determination of the value of gas for any other source. This penalty of \$2,005 is due and payable within 30 days of the date of this Order.

BE IT FURTHER ORDERED that a penalty of \$5,000 be assessed against BP Exploration (Alaska), Inc. under the authority of AS 31.05.150(a). This penalty of \$5,000 is due and payable within 30 days of the date of this Order.

DONE at Anchorage, Alaska and dated November 13, 1995.



David W. Johnston, Chairman

Tuckerman Babcock, Commissioner

AS 31.05.080 provides that within 20 days after receipt of written notice of the entry of an order, a person affected by it may file with the Commission an application for rehearing. A request for rehearing must be received by 4:30 PM on the 23rd day following the date of the order, or next working day if a holiday or weekend, to be timely filed. The Commission shall grant or refuse the application in whole or in part within 10 days. The Commission can refuse an application by not acting on it within the 10-day period. An affected person has 30 days from the date the Commission refuses the application or mails (or otherwise distributes) an order upon rehearing, both being the final order of the Commission, to appeal the decision to Superior Court. Where a request for rehearing is denied by nonaction of the Commission, the 30 day period for appeal to Superior Court runs from the date on which the request is deemed denied (i.e., 10th day after the application for rehearing was filed)

cc: Robert Mintz, Dept. of Law
John Pilkinton, Dept. of Revenue
Ken Boyd, Dept. of Natural Resources