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Controlled Purity, for Precision Products

RE TRANSMITTAL

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DATE JAN. 12, 1989

TO K. NORTON

FROM Russ Walstrom

COMPANY

GIANT YELLOWKNIFE MINES LTD

REFERENCE YOUR FAX OF JAN. 8, 1989

CONFIRMATION WILL BE SENT VIA MAIL

☐ YES☒ NO

PAGES (INCLUDING COVER SHEET)

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MEMO/DESCRIPTION

We have enclosed a copy of our bulletin DB9033 which shows the filter and specifications for the Venturi Pulse Blowback Filter at Rockwell International at Rocky Flats, Colorado. We have finally made contact with the operating people at Rockwell and will provide you with the contacts to discuss their operation experience and possibly arrange a visit.

We look forward to working with you.

Best Regards,

Russ Walstrom

copy: Russ Walstrom, RFL, FAX 506-452-1395

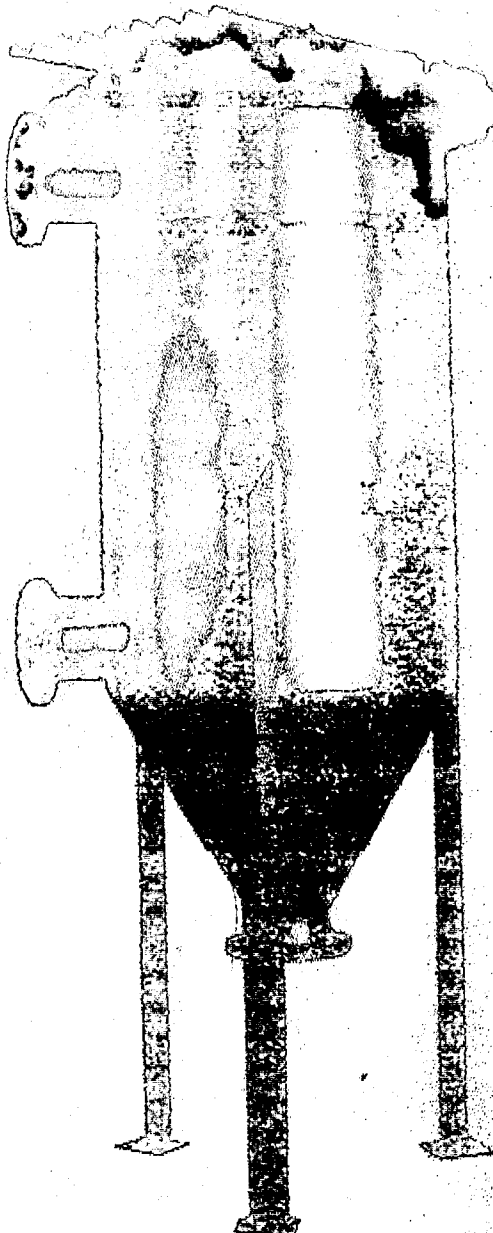
Application and Products / NEWS

MOTT
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FARMINGTON INDUSTRIAL PARK
FARMINGTON, CONN. 06032
Tel. (203) 677-7311 / Telex 9937

GAS/SOLIDS

HY-PULSE™ GSV

VENTURI PULSE BLOWBACK FILTER
NUCLEAR MATERIALS MANUFACTURER



APPLICATION:

HIGH TEMPERATURE RADIOACTIVE SERVICE
TO REMOVE URANIUM SOLIDS FROM THE
OFF-GAS FROM A CALCINER. HIGH
EFFICIENCY REQUIRED. AUTOMATIC
BLOWBACK SEQUENCING. RELIABILITY
TO ELIMINATE "HANDS ON" SERVICE.
SOLIDS FROM 0 - 20 MICRONS.

PROCESS CONDITIONS:

--FLOW - 480 ACFM
--TEMPERATURE - 750° F
--PRESSURE - 33" H₂O VACUUM
--SOLIDS LOADING - 2 #/HR.

FILTER SPECIFICATIONS:

--HOUSING - 38"
DESIGN PRESSURE - FULL VACUUM - 29 PSIG
DESIGN TEMPERATURE - 800° F
ASME CODE SECTION VIII, DIV. 1 STAMP
304 SS CONSTRUCTION
--ELEMENTS - (61) 2 3/4" DIA. X 36" LG.
MOTT 316L SS 5 MICRON MEDIA
FILTER AREA - 131.7 SQ.FT.
FORWARD FLOW RATE - 3.6 FPM
--VENTURI PULSE BLOWBACK
SEQUENTIAL BLOWBACK AT 20" H₂O DELTA P
PULSE DURATION - 0.5 SEC.
BLOWBACK - EVERY 12 - 18 HOURS

SERVICE HISTORY:

FILTER HAS BEEN ON LINE FOR MORE THAN 5 YEARS. "ABSOLUTELY NO PROBLEMS WITH THE MOTT FILTER", IS THE CUSTOMER COMMENT.

APPLICATION DEVELOPMENT

EXTENSIVE TESTING BY MOTT, AND BY INDEPENDENT AGENCIES, ALONG WITH MANY SUCCESSFUL FIELD APPLICATIONS HAS PROVIDED A SOLID GASEOUS FILTER PERFORMANCE DATA BASE TO DRAW UPON. KEY OPERATING PARAMETERS:

- A. CONTROLLED APPROACH VELOCITY UP TO 8 FPM (8 ACFM/SQ.FT.) MAX. DEPENDING UPON SYSTEM PRESSURE AND DIFFERENTIAL PRESSURE LIMITATIONS. OPERATING AT APPROACH VELOCITIES HIGHER THAN 8 FPM CAN RESULT IN PREMATURE BLINDING OF THE FILTER MEDIA.
- B. HIGH EFFICIENCY - >99.999%. THIS REMOVAL EFFICIENCY CAN BE ACHIEVED WITH FORWARD FLOW VELOCITIES UP TO 8 FPM WITH THE SELECTION OF THE PROPER MOTT POROUS MEDIA:
4 FPM OR LESS - 10 MICRON MEDIA; 6 FPM OR LESS - 5 MICRON; 8 FPM OR LESS - 2 MICRON.
- C. VPB, VENTURI PULSE BLOWBACK: 0.25 - 0.5 SEC. PULSE DURATION. LOW GAS VOLUME REQUIRED FOR BLOWBACK, APPROX. 0.5 SCF PER ELEMENT. CAN BLOW BACK ON FORWARD FLOW; FILTER NEED NOT BE TAKEN OUT OF SERVICE.

MOTT CAN SPECIFY AND DESIGN VPB FILTERS BASED ON COMPLETE PROCESS DATA, AND WE CAN ACCURATELY PREDICT PERFORMANCE RESULTS ACCORDINGLY.