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FROM G. D. HICKS
Massena Operations

TO MR. ROBERT FLANAGAN
Industrial Hygiene Dept. INDUSTRIAL HYGIENE

1981 November 01

PLAINTIFF'S
EXHIBIT
AL-1574

RE: ASBESTOS USE AT MASSENA OPERATIONS

This letter is to advise you of the current use status of asbestos materials at Massena. We have been successful in finding substitute materials in many locations, but we still have a number of areas either in need of more appropriate substitutes or enforcement of use of existing materials.

To summarize Massena's status of asbestos use I will follow the outline of Haig Sakoian's letter of 1979 July 30, Potential Exposure vs. Material/Use where applicable to Massena.

Brakes/Vehicles & Equipment

Testing needs to be done for affirmation.

Cloth/Insulation, Welding Blankets

Substitute materials have been implemented in many situations, but some situations still need attention.

Personal Protection/Gloves, Mittens, Pads, Coats and Pants

Gloves and mitten substitutes have been implemented in a number of situations, but not acceptable in others as outlined in Haig's letter. Some asbestos lined coats have been replaced.

Marinite and Marinite Floats/Molten Metal Casting

See attached letter R. R. Avery to J. R. Feeley dated 1981 September 17. Ingot plant use of all asbestos materials to be discontinued by first quarter 1982.

Packing/General Pump Packing

Pump packing material being applied as in the past. Suitable replacements should be considered on a case by case basis.

Paper/Welding Protection, Electrical Insulation

Substitutes have been implemented in a number of situations. More work needs to be tended here.

Rope/Furnace Insulation

Some applications still exist here. More attention to possible substitutes should be tried.

Tape; Tubing/Furnace Seals, General Insulation

Response same as for rope.



Thermocouple Wire

Many attempts have been made with substitute materials, essentially with negative results. Much attention and assistance needed here.

I have also attached use lists and letters relating to specific applications and substitute materials tried at various locations throughout our operations following Haig Sakoian's format. The lists have primary emphasis on our smelting plant operations, with additions showing efforts made to find substitute materials in carbon bake, ingot plant and wire, rod and bar operations. This information should give you a good comparison of current asbestos uses compared to mid 1979.

G. D. Hicks

G. D. HICKS

GDH:cmc

Attachments

cc: J. R. Feeley - 59A (with attachments)

MASSENAASBESTOS -- POTROOM USES

<u>SPECIFIC APPLICATION</u>	<u>SUBSTITUTE</u>	<u>COMMENTS</u>
<u>Cradle to Pot Shell Insulation</u>	Cem-Fil GRC J-M Asbestos Free Millboard	Not successful Installed on some pots and appears okay. Will be used on all future pot rebuilds.
<u>* Superstructure Fort Insulation</u>	Cem-Fil GRC - 9" x 7" x 1" Marinite - P -- 1/2" sheet	No test documentation No test documentation
<u>Pot Cover Insulation</u>	Almac Plastics Inc.'s - Hi-Temp Glass Marinite - P -- 1/2" sheet Pyrotek's Fiberseal H-3 Fabric HS Fiber Glass	No test documentation Not successful Not successful Works well. Has been set up as a stores item.
<u>* Walkway Grating Insulation</u>	M-50 Pyrotherm Dense Board GRC Cem-Fil - 1/4" & 3/8" Marinite - P -- 1/2" sheet	Unsuccessful; it crumbles. Not successful Not successful

MASSENAASBESTOS -- POTROOM USES

<u>SPECIFIC APPLICATION</u>	<u>SUBSTITUTE</u>	<u>COMMENTS</u>
<u>Bus Insulation</u>	Gem-Fil GRC - 1/4" & 1/2" sheet	Not successful
	Warrinite - P -- 1/2" sheet	Not successful
* <u>Exhaust Duct Insulator</u>	Transite Pipe	Still in use
<u>Exhaust Duct Gaskets</u>	Pyrotek's Fiberseal Felt T-1	Not successful
	Pyrotek T - 22 Fiberglass Cloth	Successful, Replacing asbestos as pots are rebuilt.
<u>Siphon Gaskets</u>	Pyrotek's Fiberseal Felt G-1, 1/2"	Unsuccessful
	Fiberseal Felt T-1, 1/4"	Unsuccessful
	Fiberseal M-13, 1/8" Compressible board	Satisfactory
	J-M Asbestos Free Millboard	Satisfactory, presently in use
<u>Ladle and Ladle Lid Seal</u>	Fiberseal rope F-10, 1 - 1/2"	Unsuccessful
	Pyrotek's Treated Z-5 Tape	Successful, presently in use

MASSENA

ASBESTOS -- POTROOM USES

SPECIFIC APPLICATION

SUBSTITUTE

COMMENTS

* High Temperature Exposure
Insulated Electrical Wire
 P-75, P-225 Potwiring.
 P-225 Jackmotors, Calmod
 heaters

High Temp. Silicon
 Braid Copper
 Conductor, 1000 V,
 200° C

Satisfactory, limited replacement
 practice

* Asbestos material still in use. Satisfactory replacement still being sought.

MASSENA

ASBESTOS -- CARBON BAKE USES

<u>SPECIFIC APPLICATION</u>	<u>SUBSTITUTE</u>	<u>COMMENTS</u>
<u>Exhaust Duct Manifold</u> <u>Gaskets</u>	Pyrotek Composition Boot V-5, M-6, H-3 Fabric	To be tested, expect ship- ment Oct. '81

MASSENAASBESTOS -- WRB USESSPECIFIC APPLICATIONJarke Rack Liners

<u>SUBSTITUTE</u>	<u>COMMENTS</u>
Pyrotek 747 Cloth	Unsatisfactory, frays easily
Pyrotek F-1 Cloth	Unsatisfactory, frays easily
Pyrotek T-23 Tape	Unsatisfactory, " "
Pyrotek Glass and Kevlar Blend	Unsatisfactory, " "
Pyrotek T-22 Tape	Unsatisfactory, " "
Newtex Fabric Tape	Unsatisfactory, " "
Zetex 1200 Tape	Unsatisfactory, " "
Zetex #32500	Successful so far, encouraging

FROM: R. R. AVERY

TO: J. R. FEELEY - 59A

1981 September 17

*pls copy for
GD Hicks
Jat
09-15 gne
9/18*

RE: ASBESTOS REPLACEMENT UPDATE

Asbestos cloth, paper and tape will no longer be used in the Ingot Plant. Thermocouple wire with asbestos covering has been replaced with a fiberglass cover. Asbestos rope which was used to pack bottom blocks has been replaced with K-2 Fiberseal from Pyrotek. Asbestos mitts have been replaced with Keylar mitts.

All molten metal marinite with exception to headers will be replaced with marinite I as molten metal marinite is deleted from stock.

Headers for our mold packages are being replaced with R-680 material. Working closely with our supplier, ATC, as they can meet our supply demand we will delete molten metal marinite headers from stock. The 15"Ø 6x6 FDC and 6x6 HDC have been completed.

A new 18-5/8"Ø mold package is currently being evaluated, and by the first quarter 1982, this package should be on-stream. This new package will eliminate the last two pieces of molten metal marinite in the Ingot Plant.

All asbestos-containing material in the Ingot Plant should be replaced with a non-asbestos material by the end of the first quarter 1982.

R. R. AVERY

RRA/bls

cc:

B. E. Anderson	-59A
B. R. Bergeson/T. Morales/T. J. Klemp	-201
W. T. Burt	-201
W. R. Duso	-201
W. P. Moore	-201

FROM: K. P. BELLOR

TO: G. D. HICKS - 30

1981 SEPTEMBER 01

RE: ASBESTOS REPLACEMENT PROGRAM

In response to your letter of 1981 August 14 captioned as above, please find attached the requested survey for the Electrical Department 95, Massena Smelting.

The only application of asbestos utilized by Department 95 is asbestos insulated electrical wire. Asbestos insulated electrical wire is used in several high temperature applications throughout Smelting which are described below:

1. Calrod Heaters - Bldgs. 332, 356 and Potroom Crane Lights

G. E. Delta Beston Asbestos Braid Rheostat wire is used on the potroom crane light resistors and the calrod heaters - Bldgs. 332, 356. Annually, 1000 feet of this wire is used for maintenance purposes.

2. P-225 Jackmotor and Potwiring

Both one conductor and two conductor Rockbestos (asphalt impregnated asbestos) insulated wire is currently used for the bridal and daisy chain wiring, respectively on the P-225 pots. Approximately 3000 feet of this wire is used annually for maintenance purposes. In addition, three conductor Rockbestos cable is used for the jackmotor power cables on each P-225 pot and approximately 200 feet of this cable is used annually for maintenance purposes.

3. P-75 Potwiring

One conductor Rockbestos and one conductor Continental AHG-X1000 type ACA wire currently is in use for P-75 potwiring. Annually, 2000 feet of this wire is used for maintenance purposes.

The above items summarize the asbestos applications for Electrical Department 95. A cross-the-board replacement program for asbestos wire in Smelting has not been implemented. Such a program would be impractical because of the large quantities of asbestos insulated wire installed on both the P-75 and P-225 pots; however, non-asbestos replacements are being tested and used as maintenance necessitates. For example, high temperature silicon insulated wire is gradually replacing the Rockbestos pot wiring on the P-75 potlines. In addition, Pittsburgh Smelting Engineering is going to provide Massena with information on additional non-asbestos replacements which are used at other plant locations. These non-asbestos replacements

G. D. HICKS
1981 SEPTEMBER 01
Page Two

would have similar applications at Massena and could gradually be installed as maintenance necessitates. This will be investigated.

K. P. Bellor
K. P. BELLOR

KPB:lmw

Xc: R. H. Feild - 8
D. E. Jackson
J. M. Shaw

Copy to PH Lunt 1981-11-06