Rec'd from RI on 1/25/88

Atomic Energy Control Board
P.O. Box 1046
Ottawa, Canada
K1P 5S9

Commission de contrôle de l'énergie atomique
C.P. 1046
Ottawa, Canada
K1P 5S9

DIRECTORATE OF FUEL CYCLE
AND MATERIALS REGULATION

Telephone: (613) 995-1388

21 April 1987

15-1-0

Mr. J. Kinneman
Chief, Nuclear Materials
Safety Section
USNRC
631 Park Avenue
King of Prussia, PA 19406
U.S.A.

Dear Mr. Kinneman:

Further to our recent phone conversation, the AECB has inspected 83 automotive body shops which use the 3M model 906 static eliminator and contamination was found in 33 cases. Usually, the contamination was confined to the exterior of the device, quick connectors, the inside of the hose just before the static eliminator and the interior of equipment which was attached to the device (i.e. paint guns, sanders, etc.).

I have enclosed a copy of the report from one of our inspections. When this device was sent to our laboratory, the following contamination was found:

1) tapping the unit released 41100 Bq on a wipe
2) a wipe of the inside of the end fitting resulted in 12100 Bq.

We were not able to determine whether the contamination was free polonium or contained within microspheres.

The AECB is in the process of notifying users that they should immediately remove all units from service and place them in a sealed plastic bag to prevent the spread of any contamination. 3M anticipates that they will have collected 75% of the units by the end of April. Distribution to body shops has stopped until they can assure the AECB that units can be used safely in this application.

The AECB is currently inspecting model 906 units in other types of applications and users of the models 902 and 908 since these units are similar to the 906. I do not have any results yet but 3M claims that no contamination was found in a small sample of these users that they recently visited.

8809190201

Arrangements are currently being made to perform bioassay tests on several people who worked in contaminated shops. We do not anticipate any measurable uptakes based upon the contamination levels and use conditions but we think that this must be confirmed.

Thank you for your offer of assistance. At the present time, I don't think this is necessary but we will contact you if the situation changes. In addition, we will keep you informed of our results.

Yours sincerely,

for

W.R. Brown
Supervisor
Licence Assessment Section
Radioisotopes and Transportation
Division

WRB:gc

All the tools which had been used with this air line or which were air-powered were verified. Also, tools located in the tool boxes were verified with my LB1200, the only instrument in my possession at that time. The following equipment was found contaminated in the levels mentioned hereunder:

Equipment	Serial Number	Contamination
Round Sander	4704	2200 CPM
Round Sander	4884	5000 CPM
Round Sander	447	1200 CPM
Round Sander	2769	600 CPM
Square Sander	10588	300 CPM
Polisher	20A006	1500 CPM
Primer Paint Gun	0480	900 CPM
Primer Paint Gun	510	2400 CPM
Blowing Tube		9000 CPM
[illegible]		[illegible]
Small air pressure indicator		3000 CPM
Paint Gun, model Binks		600 CPM
Rodak Sander		400 CPM
Small Grinder		400 CPM
Quick Changer Plug (inside paint shop)		9000 CPM
Quick Changer Plug (outside paint shop)		400 CPM
Stalim 3M-906	E61769	(40 mR/h)

It is to be noted that these above mentioned contamination counts are net activity detected with an LB1200 (window open), near contact with the connecting tubes for the air line.

There was no contamination detected anywhere outside these devices and it seems that most or all of the contamination is located inside the air tubing of these devices.

Also, it is to be noted that all these devices have "O" rings made of rubber material as found in one blowing tube. The "O" ring indicated a contamination of 14,000 CPM on my LB1200.

Two primer paint guns were placed inside the special washing machine for cleaning instruments used in the paint shop and the levels of contamination was reduced only very slightly on one paint gun while the other one did not show any difference. An alcohol solution similar to Varsol is used as detergent in this washing machine.

The 906 device as well as the quick changer attachment were brought back to this office with the permission of [redacted] and further analysis with more appropriate instrumentation gave the following direct contamination results.

Government of Canada | Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

TO / À: W.R. Brown

FROM / DE: R. Descoteaux

SECURITY - CLASSIFICATION - DE SÉCURITÉ	
OUR FILE - N / RÉFÉRENCE	15-1-10109
YOUR FILE - V / RÉFÉRENCE	
DATE	87-03-25

SUBJECT / OBJET

INSPECTION OF "[redacted]"

Address: 250 St-Simon Street, [redacted]

Licence #: 4-10109-88

Licence Type: STALIM

Inspection Report Index #: 9003

Date of Inspection: March 24, 1987

Pre-Arranged / Not Pre-Arranged

Contact/ Alternate Person(s) Seen: [redacted], owners

1. Inspection Commentary

This inspection visit turned into a major investigation after a considerable amount of contamination was found inside this licensee's garage.

A static eliminator model 3M-906 (S/N E61769) containing an original activity of 740 MBq of Po210, dated May 1, 1986, was hooked on an air line in the paint shop of this garage.

When I verified the radiation reading with my LB1200 (window open), I was surprised to read 4 mR/h as normally I should not have read anything with the detector placed against the attachment of the 906 stalim as it is the case with other such devices.

I then asked [redacted] to unscrew the 3M device from the air line in the first place, and then from the quick changer attachment which was also hooked to the stalim. When I read 3 mR/h (9,000 CPM) on the quick changer attachment, I then realized that contamination had spread outside the 3M device. A blowing tube which [redacted] had in his possession also indicated 3 mR/h (9,000 CPM) near contact with one open end.

A verification of the surrounding area, such as the floor, booths and walls, was watered down some two to three times a day to remove dust from this area.

...2

Reading on PRM-6 (negligeable background)

On large end of quick changer plug	6000 CPM
On small end of quick changer plus	800 CPM
On 906 device - small tip	1800 CPM
On 906 device - large end	2800 CPM
On wipe taken on screw-in end	1200 CPM
Dust or microspheres knocked off 906 device (device was knocked against filter paper)	350000 CPM
On wipe taken on quick changer plug	40 CPM
On Q-Tip taken inside quick changer plug	400 CPM

HP 260 on PRM-6 (background of 40 CPM)

On large end of quick changer plug	8000 CPM
On small end of quick changer plug	1000 CPM
On 906 device - large end	6000 CPM
On 906 device - small end	7000 CPM
Dust or microspheres knocked of 906 device (device was knocked against filter paper)	240000 CPM

The wipes, Q-Tips and filters were sent to AECB Laboratory for further analysis.

After all the garage instruments were verified for contamination, they were placed inside plastic bags and in a cardboard box.

It is to be noted that this licensee's premises should be verified more accurately and thoroughly with proper instrumentation by the 3M Company personnel.

Instructions were given to [redacted] not to use the contaminated instruments until completely decontaminated or disposed of properly by the 3M personnel.

Attached to this report is a drawing of the air line attachments and location inside the body shop.

The 906 stalim device and the quick changer plug were handed over to the RTD Project Officer, Daniel Levesque.

License No. 37-02006-05

GENERAL ELECTRIC Docket No. 030-06046

FEDERAL AND ELECTRONIC SYSTEMS DIVISION MLER-8 2-002

GENERAL ELECTRIC COMPANY • VALLEY FORGE SPACE CENTER • PO BOX 8555 • PHILADELPHIA, PENNSYLVANIA 19101 • (215) 354-1000

December 22, 1987

U.S. Nuclear Regulatory Commission
Region 1
611 Park Avenue
King of Prussia, Pa. 19406

Reference: License 37-02-006-05

Dear Sir/Madam:

During routine leak testing on 12/21/87, as set of 3M Brand Nuclear Static Eliminators (Model 205, SN A38309 and Model 504, SN A25974) containing 5 and 10 mCi of Polonium-210 were discovered to be leaking.

A thorough wiping of the 10 mCi source revelled the presence of about 57 dpm of removable polonium-210 and the 5 mCi source showed about 1292 dpm. Both of these levels calculate out to an activity below the 0.005 uCi indicated in item 13, D&E of our [illegible] license (37-02006-05) which requires reporting to NRC. However, further testing conducted on 12/22/87 indicated that there was 24,142 dpm (approx. 0.01 uCi) of removable contamination on the shelf where these sources had been stored. I believe that this situation is in a grey area in terms of whether or not reporting of this leak is required, but we decided to report it to be on the safe side.

Both sources have been double sealed in plastic bags and are being prepared for return to 3M for disposal. There are no other sources of this type in our position at this time.

The cause of the leak is under investigation. Unlike a previous, similar situation in which a source may have been exposed to temporature conditions greater than those recommended by the source manufacturer, these sources were reportedly not exposed to any unusual environmental conditions. Members of our engineering staff are in touch with representatives from 3M to try and determine a possible cause of the failure of the source sealing material. 3M has indicated that the polonium-210 itself is permanently encapsulated in microspheres that are biologically inert, thus minimizing the hazard associated with possible material contact by our personnel.

8804150177
(PDR)

1X30

Return Original to Region I

Pat,

this proprietary document was included w/the box of documents to be processed (PDR already has identical box).
Lee suggested that you call Jim Blanton to determine if the document should be made PDR available.

JPK

MEMORANDUM OF CALL

Previous editions usable

TO: Pat

X YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

Jim Blanton

OF (Organization)

☐ PLEASE PHONE ▶ ☐ FTS ☐ AUTOVON

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

said "go ahead & process 3M documents"

RECEIVED BY	DATE	TIME
JPK	9/15/88	~12:45 pm

63-110 NSN 7540-00-634-4018 STANDARD FORM 63 (Rev. 8-81)
Prescribed by GSA
FPMR (41 CFR) 101-11.6

* U.S. GPO 1987-0-196-243/79063

~~SEEC~~ SEOC

Done 1/25/08 for REC
by Don Cool

Dose Calculations for Po-210 in Microspheres

Dose per microsphere

Assumed 0.1 μCi per microsphere

$\therefore (0.1\ \mu Ci)\left(3.7\times10^{4}\ \frac{dis/sec}{\mu Ci}\right) = 3.7\times10^{3}$ dis/sec $= 3.7\times10^{3}$ Bq

Assumed that gut transfer is 10^{-6} of activity in microsphere

$\therefore (1\times10^{-6})(3.7\times10^{3}\ Bq) = 3.7\times10^{-3}$ Bq Transferred to body

---

NUREG/CR-1962 Volume 1 gives dose in Sv/Bq per Po-210 oral intake in Page 93

The oral intake values are based upon a gut transfer of 0.1

In this case, we are assuming gut transfer of 1×10^{-6}

∴ The dose per microsphere should be 10^{-5} smaller than the values listed on page 93 of NUREG/CR-1962.

∴ dose values:

(NUREG value) $(10^{-5})(3.7\times10^{3})$ Sv

$(Sv)\left(\frac{100\ rem}{1\ Sv}\right)\left(1000\ \frac{m\,rem}{rem}\right)\left(1000\ \frac{\mu\,rem}{m\,rem}\right)$

Dose per microsphere

$= (3.7 \times 10^{3}\ Bq)(10^{-5})(NUREG\ Sv/Bq)$

Target Organ	NUREG	Microsphere (Sv)	millirem	
Adrenals	8.23 x10⁻⁸	3.05 -9		
Blad Wal	8.23 -8	3.05 -9		
Bone Surf	8.23 -8	3.05 -9		
Breast	8.23 -8	3.05 -9		
S wall	8.36 -8	3.09 -9		
SI + cont	8.51 -8	3.15 -9		
ULI wall	9.82 -8	3.63 -9		
LLI wall	1.31 -7	4.85 -9	4.85 -4	*
Kidneys	2.55 -6	9.44 -8	9.44 -3	*
Liver	4.39 -7	1.62 -8	1.62 -3	*
Lungs	8.23 -8	3.05 -9		
Ovaries	8.23 -8	3.05 -9		
Pancreas	8.23 -8	3.05 -9		
R Marrow	8.23 -8	3.05 -9		
Skin	8.23 -8	3.05 -9		
Spleen	4.38 -6	1.62 -7	1.62 -2	*
Testes	8.23 -8	3.05 -9		
Thymus	8.23 -8	3.05 -9		
Thyroid	8.23 -8	3.05 -9		
Uterus	8.23 -8	3.05 -9		

∴ 1 microsphere <u>ingested</u> delivers approximately

0.02 mrem to spleen

0.01 mrem to kidney

0.002 mrem to liver

Given a highest count of 15×10^4 dpm

$\therefore (15 \times 10^4 \frac{d}{m})(60 \text{ dps/dpm}) = 9 \times 10^6$ Bq

Assuming that 2.7×10^3 Bq = 1 microgram, then

$(9 \times 10^6) / (2.7 \times 10^3) = 2.41 \times 10^5$ micrograms

Assuming this amount is ingested, dose to tissue would be

3.94	rem	to	spleen
2.30	rem	to	kidney
394	millirem	to	liver

Note if device could have max of 200 mCi

200 mCi = 7.4×10^9 Bq

then sample was $\approx 12\%$ of total device

PO-210
DOSE (SV/BQ)

TARGET ORGANS	INHALATION CLASS D (WP,TB,P) F1= 1E-01	INHALATION CLASS W (WP,TB,P) F1= 1E-01	ORAL F1= 1E-01
ADRENALS	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
BLAD WAL	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
BON SURF	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
BREAST	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
S WALL	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.36E-08
SI+CONT	4.05E-07 (34, 16, 50)	1.27E-07 (37, 29, 34)	8.51E-08
ULI WALL	4.07E-07 (34, 16, 50)	1.33E-07 (38, 28, 34)	9.82E-08
LLI WALL	4.12E-07 (35, 15, 50)	1.49E-07 (40, 26, 34)	1.31E-07
KIDNEYS	1.25E-05 (34, 16, 50)	3.88E-06 (37, 29, 34)	2.55E-06
LIVER	2.16E-06 (34, 16, 50)	6.70E-07 (37, 29, 34)	4.39E-07
LUNGS	7.29E-07 (15, 9, 72)	1.30E-05 (0, 0,100)	8.23E-08
OVARIES	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
PANCREAS	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
R MARROW	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
SKIN	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
SPLEEN	2.15E-05 (34, 16, 50)	6.69E-06 (37, 29, 34)	4.38E-06
TESTES	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
THYMUS	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
THYROID	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08
UTERUS	4.04E-07 (34, 16, 50)	1.26E-07 (37, 29, 34)	8.23E-08

ALI (BQ) AND DAC (BQ/M**3 - 40 HR/WK)

	INHALATION CLASS D	INHALATION CLASS W	ORAL
ALI - DAC	2.3E+04 S - 9.6E+00	2.3E+04 S - 9.5E+00	1.1E+05 S

Vandy Miller rec'd this 1 pg. SE?? 11

KA

Fax To: H. Thompson, NMSS, OWN
R. Cunningham, " "
(1 Pg.)
From: OPA - Fi

Miller

RADIATION-ASHLAND
DALLAS (AP) -- OFFICIALS ARE TESTING ASHLAND CHEMICAL CO. EMPLOYEES IN TWO STATES FOR EXPOSURE TO LOW-LEVEL RADIATION BELIEVED TO HAVE LEAKED FROM AIR GUNS USED TO ELIMINATE STATIC AT ELECTRONIC CHEMICALS PACKAGING PLANTS.

''OUR EMPLOYEES ARE OUR PRIMARY CONCERN HERE AND THE TESTS ARE BEING DONE TO ENSURE THAT THEIR HEALTH IS NOT AFFECTED IN ANY WAY,'' ASHLAND SPOKESMAN PETER LOSCOCCO SAID SUNDAY NIGHT.

THE TWO PLANTS, WHICH BOTTLE ACIDS USED IN THE MANUFACTURE OF SEMICONDUCTORS, WILL REMAIN CLOSED DURING TESTING AND CLEANUP, LOSCOCCO SAID. ALL 37 EMPLOYEES IN DALLAS AND 90 EMPLOYEES IN EASTON, PA., ARE BEING TESTED.

AS THE TESTS CONTINUED TODAY, A TWO-MAN TEAM SOUGHT TO DETERMINE HOW THE CERAMIC MICROSPHERE LEAKED FROM AIR GUNS LEASED FROM 3M CORP., 3M SPOKESMAN DENNIS MICK SAID FROM THE 3M STATIC CONTROL SYSTEMS DIVISION IN AUSTIN.

THE RADIATION LEAK WAS DISCOVERED SATURDAY NIGHT AFTER OFFICIALS CHECKED EQUIPMENT SIMILAR TO THAT INVOLVED IN RADIATION LEAKS FOUND THURSDAY AT ASHLAND'S PLANT IN EASTON, 60 MILES NORTH OF PHILADELPHIA, LOSCOCCO SAID.

THE COMPANY NOTIFIED THE NUCLEAR REGULATORY COMMISSION AND THE TEXAS BUREAU OF RADIOLOGICAL HEALTH OF THE CONTAMINATION AT THE DALLAS PLANT, LOSCOCCO SAID.

A THIRD ASHLAND PLANT, IN NEWARK, CALIF., SHOWED NO CONTAMINATION, AN NRC SPOKESMAN SAID SUNDAY.

AP-WX-01-25-88 1056EST

T/P Conf Call 1/26/88 3^{25} pm

RI, Ashland (Easton), NMSS, Ashland (Corp?)
(3M rep)

Rad measurements, findings, how det'd
@ facility
re distribution of containers

Facility

Have 19 SG air guns
14 on consolidated bottle washer machine
5 on manual stations & capper units

Contam'n discovered bec of IBM's complaint
re: α contam (sent to Fishkill NY)
~~RS Consult~~ IBM reps found contam in area
of consol. unit

Assay — 24 - 2.5 l containers of H_2SO_4 (21 - neg.)
0.007, 0.063 - 0.078 μCi / 2.5 l volume (3)
[3.5×10^{-5} μCi / cc]

- Po-210 plates out on chips; have sensitive equip to ct. down to several dis α / hr
- Have scin. flow-through equip; took 2 weeks to get this info

Conten flow

-

3M says spheres are sol in: HF, boiling H_2SO_4
insol in: HNO_3 HCl H_2SO_4

⇒ 0.1 μCi per microsphere

1/14 SE off washer
3M did visual exam; tap tested 14 dev
{ 4 showed + for degr...
{ 2 " possibly ...
{ 8 " no degr...

1/26 survey of machines at each loc where SE were placed
- each nozzle showed 20-180,000 dpm
- suggests each of 12 was leaking
13th = no activity; ~~13th~~ 14th > bkg but low

Manual ~~option~~ stations - no index of activity

Mean problem: perhaps those w/ washing operin

Oakland - hired Bobby G (Applied HP)
- decided BG did not have resources for surveys & decontam

-

NRC had done confirm. surveys of 4 bldgs
w/ 5K→10^6 dpm Highest = Bldg 9

Contam is not generalized but in localized areas & seems easy to remove w/ adhesive tape - suggests particulate (~μsphere); not like dust or talc

30μ diameter / μsphere

20K-200K dpm - 15-30 particles (?) !?

30% effic for α

1 μsphere ≅ 0.1 μCi 220,000 dpm
60,000 cpm

A few areas ≅ 500 dpm — contam'd eqpt
— shielding w/ dust, dirt
— physical decay

All contam'n easily removable

(coveralls uniforms) checked lockers.
CLOTHING: BG found a few sets of clothes w/ α
≅ 5–10K dpm

BG, NRC checked cars of most probably exposed: No contam'n found

AIR SAMPLES: in Bldg 9 No Activity
HEPA filter near washer: No Activity
(3–4' from Machinery
2 — 2"x2" filters side by side
↓
in use 3–4 months

Bottles – 6 at a time

13

T/p call at field
1/26/88

TX

Wash bottles w/ H2O, put bottles over air gun
for 15 sec; air for 2 sec ⇒ 13 sec
of water dripping on air gun

Explains H2O on filter

3M was aware of problem

~~SECY~~ SECY-14

1/26/88
John Hickey +
Don Coal
Prepared
for R. Bernero

Criteria for Release of Acids and Cleaning Fluids
Contaminated with Po-210

As a result of the breakdown of Po-210 static eliminators at Ashland Chemical Company facilities, some reagents shipped to customers have been determined to be contaminated with small quantities of Po-210. The NRC staff believes that a concentration of less than 4×10^{-8} microcuries per milliliter should be acceptable from a radiological standpoint. This value is the concentration for water in the published proposed revision of 10 CFR Part 20, Appendix B, Table 2, for members of the public.

Persons who find contamination in products should immediately report the following information to NRC prior to release of the product.

1. Type of product
2. Volume of mass contaminated
3. Level of contamination
4. Method of measurement.

conductor Sales in Japan of Market in November

...UDER
...ET JOURNAL
...miconductor
...e here every
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...panese-made
...s. The plans
...n chip sales

grew to 12.6% of the Japanese market in early 1987 from 10.3% a year earlier.

But the growth stopped in June. Sales of foreign chips in Japan are still increasing but total sales, including Japanese chips, have grown even faster.

The ministry blames the limited number of products sold by foreign companies in Japan. "There are a certain number of chips a maker can simply pull out of his product and replace with a foreign chip," said Mr. Yoshihara, the ministry official. "But now everybody has already bought what they could easily use."

Big chip buyers like Matsushita Electric Industrial Co. and Sony Corp. traditionally work closely with Japanese chip makers who tailor-make semiconductors for such products as videocassette recorders and compact disk players. In the past, few American companies made these custom chips. In 1986, Sony said, U.S. companies made only 3% of the types of chips it needed for its videocassette recorders.

Japanese companies have begun working with U.S. companies to design such chips, but the ministry says it will take several years before those efforts are reflected in trade statistics.

The ministry said it has been swamped by complaints that foreign companies often rebuff the efforts of Japanese firms to buy chips. They say U.S. companies can't meet delivery schedules, only partially fill orders and sometimes refuse to design chips to Japanese specifications.

"The feeling here," said Mr. Yoshihara, "is that since demand in the U.S. is so good, American companies don't have anything left to sell to Japan."

Although the U.S. semiconductor industry is in the midst of a boom as a result of skyrocketing demand in this country, industry officials say the Japanese have been slow in opening their markets.

Some U.S. manufacturers, however, have made progress selling more chips to Japan since last spring. A spokesman for Texas Instruments Inc., which operates the largest foreign-owned chip plant in Japan, said, "We have benefited greatly from Japan's new 'buy foreign' campaign." He said specific sales figures weren't available.

Journal Editorial Writer Gets Lawyer Group Award

By a WALL STREET JOURNAL Staff Reporter

NEW YORK—L. Gordon Crovitz, assistant editor of The Wall Street Journal's editorial page, won a first-place award in the New York State Bar Association's media awards competition.

Mr. Crovitz, 29 years old, won the 1987 award in the national newspaper category for six editorials and four articles on legal issues raised by the Iran-Contra affair. He argued any law that usurps the foreign-policy powers of the executive branch is unconsututional.

Mr. Crovitz, who has written Journal editorials since 1980, holds law degrees from Oxford University and Yale Law School.

Patricia Bellew Gray, a Journal staff reporter who covers the legal profession, won a certificate of merit from the bar association for her front-page article "Legal Nightmare: Multiple Allegations of Impropriety Beset Sullivan & Cromwell." The August 1987 article examined four cases in which the prominent New York law firm was charged with improper or unethical behavior.

The Journal is published by Dow Jones & Co., which also publishes Barron's Weekly and community newspapers and operates newswire and other information services.

The New York bar association, a statewide lawyers' group, gives awards for articles and broadcasts that educate citizens about the law, disclose problems in the legal system or enhance efforts to improve it.

Minnesota Mining's Sale of Some Ionizers Is Suspended by NRC

By a WALL STREET JOURNAL Staff Reporter

WASHINGTON—The Nuclear Regulatory Commission has suspended indefinitely the sale of certain models of Minnesota Mining & Manufacturing Co.'s air ionizers, which use a nuclear device to keep industrial facilities free of dust.

On Friday and over the weekend, Ashland Chemical Co., a unit of Ashland, Ky.-based Ashland Oil Inc., discovered apparent radiation leaks from Minnesota Mining-made air ionizers used at Ashland facilities in Easton, Pa., and Dallas.

Both plants will remain closed while they are cleaned and workers are tested for possible contamination, a company spokesman said. The plants are expected to be reopened within the next couple of weeks.

While Ashland suspects that health hazards at its two facilities are "minimal," the spokesman said the company will hold Minnesota Mining responsible for any contamination.

The St. Paul, Minn.-based company's air ionizers in question—models 902, 906 and 908—use polonium 210, a nuclear source that eliminates electrostatic charges. The emitted material, known as alpha particles, can't penetrate human skin, the company said. Minnesota Mining also said the polonium under ordinary circumstances isn't emitted. But if it does break apart from the ionizer, the polonium is housed in ceramic microspheres the size of grains of salt, which are too big to be inhaled and, if ingested, would pass quickly through the body without any harmful side effects.

Nonetheless, the NRC has ordered Minnesota Mining to check for leakage in the estimated 20,000 other similar air ionizers currently in use.