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## Memorandum

PLAINTIFF'S  
EXHIBIT  
AL-976

August 8, 1989

To: ORC Asbestos Task Force  
From: Rebecca L. Daiss *Reck*  
Subject: Use of Glove Bags in Asbestos Removal

Attached, for your information are a number of news articles, press releases, and position papers pertaining to asbestos removal and the use of glove bags.

Attachment

RLD3:lgs

## Developments Affecting Asbestos Management

*By Lloyd A. Fox, Esq., Chairman and Chief Executive Officer  
The Environmental Management Group, Inc.*

**Negative Air Patent.** In 1986, the United States Patent and Trademark Office granted a patent covering a method and system for the control of airborne asbestos contamination during asbestos abatement projects. This patent, granted to Anthony Natale (Patent No. 4,604,111), was quite broad in its reach, and was claimed to cover the system of containment of asbestos abatement work areas combined with the establishment of a negative pressure and filtration of air by the use of air filtration devices. While the air filtration device machinery itself was not patented, the "negative air" system was the subject of the patent.

*As we approach the midway point of 1989, recent significant events will have a great effect on asbestos abatement contractors, consultants, and building owners. This article reviews the more important developments and discusses their importance to the industry and performance of work.*

The patent resulted in a great deal of controversy. The negative air/containment system, claimed to be covered by the patent, was in wide use throughout the asbestos abatement industry, and was even described in guidance documents published by the U.S. Environmental Protection Agency (USEPA).

The rights to the patent were sold to a related company known as GPAC, Inc., which embarked upon licensing contractors for the use of this system. Licensing fees were initially based on a percentage of the annual volume of work, but were later fixed at an annual rate, based on the number of offices of the contractor. Public and private building owners were contacted by the patent holder, charging that specification of the negative air system without using a licensed contractor could indirectly infringe upon the patent. In several instances, protests were lodged by licensed contractors in cases where bids were awarded to non-licensed contractors.

In 1987, a manufacturer of air filtration devices for asbestos abatement work challenged the patent through a re-examination proceeding in the patent office. In January, 1988 a patent office examiner rejected all the claims covered by the patent, finding that there had been prior public use of the patented system more than one year before the filing of the patent. This decision was appealed by the patent holder. Two court proceedings had also been initiated, one by a contractor, and the other by GPAC against a contractor and supplier organization. In the first case the contractor filed suit to invalidate the patent; in the second legal action, the patent holder filed suit against the contractor/supplier organization for patent infringement. Both of these legal actions were ultimately settled. The plaintiff in the first action had developed an alternative process to the negative air/containment system, which was declared by the patent holder to be non-infringing.

On March 31, 1989, the Board of Patent Appeals and Interferences issued a new ruling. The

*(See DEVELOPMENTS, page 2)*

### **(DEVELOPMENTS, from front page)**

Board reversed the final rejection of the patent claims by the patent examiner. This action restored the claims which had been previously rejected. In addition, during the re-examination process, the patent holder allegedly added 12 new claims under the patent, and these were added to the patent.

The recent ruling is viewed by several patent attorneys as more procedural than substantive. The Board of Patent Appeals ruled that the evidence of prior art (public use) relied upon by the examiner was not established by the documents referred to in the examiner's rejection. The ruling states that the examiner did not have the authority to "engage in a fact-finding endeavor to establish the existence of a public use ... during a re-examination proceeding." The basis of the ruling appears to be an improper fact-finding mission by the patent examiner outside of the record of the patent office. The Board of Patent Appeals also appeared to refute the patent examiner's finding that certain documents outside the record established an admission by the patent holder that the patented process was the subject of public use.

With this new development restoring the status of the patent, the patent holder has again embarked on the licensing of contractors to use the negative air system. The price structure has been revised downward, at least for a specified number of contractors who acquire a license within a short period of time. The patent holder has stated that contractors who have been unlicensed since 1986 could be subject to "serious financial liability" for patent infringement.

The existence of the patent may have a significant impact on the performance of asbestos abatement work. While the patent holder is licensing contractors, the licensing fees can be significant, particularly for small contractors. In addition, consultants and building owners are being advised that specification of processes which violate the patent could result in legal action against them for indirect patent infringement. At the very least, the cost of abatement work will rise if the patent's validity is upheld. However, the existence of the patent means that its validity is presumed, unless a successful challenge is brought in court to invalidate the patent.

As of the time of this writing, several efforts are underway to determine whether a successful challenge of the patent can be maintained. Many believe that the process covered by the patent was utilized by others, as well as the

### **(DEVELOPMENTS, continued from last column)**

patent holder, more than one year prior to the filing of the patent in the Patent and Trademark Office. Unlike the patent office re-examination proceeding, a court would review any evidence offered by the parties seeking to invalidate the patent. The intent of the evidence would be to show that the patented process and/or its underlying technology was in use by others or by the patent holder more than one year prior to the filing of the patent application in 1981.

In view of the significant impact that the patent may have, and the significant amount of money involved in the licensing process, further legal developments are anticipated. Contractors, consultants, and building owners who are performing or having abatement work performed must review the coverage of the patent and determine whether processes infringe on the patent. The advice of competent patent counsel should be obtained for this analysis, and developments should be followed carefully.

**OSHA Glove Bag Controversy.** The use of glove bags for the removal of asbestos from pipes has been prevalent in the asbestos abatement industry, particularly in industrial and commercial settings. Ordinarily, glove bag removal is accomplished without using contained areas or air filtration devices for the reduction of fiber counts in the contained area.

forming asbestos removal utilizing glove bag without the presence of a contained area (termed a "regulated area" under the OSHA regulations). OSHA has suggested that its interpretation of its existing regulations to require this type of work area is not the subject of new regulatory activity, but rather is an interpretation of existing regulations which has not been enforced. Others feel that OSHA has either re-interpreted its regulations, or engaged in rule making without appropriate legal steps. The result has been inconsistent enforcement of this interpretation, resulting in confusion in the industry. It can be expected that additional developments will occur in this area.



**Glovebagging: OSHA has a new view**

Recently, several offices of the Occupational Safety and Health Administration (OSHA) have issued citations to contractors for per-

## Industry News

## Natale "Negative-Air" Patent Rejection Reversed

The U.S. Patent and Trademark Office's Board of Patent Appeals and Interferences, in a ruling dated March 31, 1989, reversed the final rejection of the patent claims of Anthony Natale under the so-called "negative-air" patent (U.S. Patent No. 4,604,111).

In 1986, Natale was granted U.S. Patent No. 4,604,111 covering a method and system for reducing airborne asbestos contamination during the course of asbestos removal. GPAC, Inc., a related company, became the owner of the patent and began licensing contractors to use the patented process.

The grant and validity of the patent were challenged in both legal and U.S. Patent Office proceedings. In 1987, a group of interested parties led by John Conrad of Global Consumer Services, Inc., a manufacturer of air filtration devices, challenged the patent through Patent Office proceedings. In January 1988, a Patent Office examiner rejected all claims under the patent, based on prior public use of the patented process. Two court cases involving the patent were settled.

In the March 31, 1989, ruling of the  
NATALE continued on page 9

### Natale...

(continued from page 1)

Board of Patent Appeals and Interferences, the rejection of the examiner was reversed. The new ruling states that the evidence of prior art (public use) relied upon by the examiner was not established by the documents referred to by the examiner and the examiner did not have the authority "to engage in a fact-finding endeavor to establish the existence of a public use... during a re-examination proceeding."

In the aftermath of this ruling, GPAC issued a press release stating that this "latest development in a long-running battle" is likely to have "a significant impact on the nation's asbestos abatement contractors, who must now be licensed by GPAC to legally use the patented contamination control system."

Legal counsel for the patent holder stated that GPAC has "the right to begin infringement proceedings against any user of the patented negative-pressure system from... 1986 to the present. Contractors who have not been licensed by GPAC and who have been using this system for the last two years could be subject to serious potential liability."

It appears that further challenge to the patent may take place in court, should GPAC bring infringement proceedings or should an action be brought in a declaratory judgment or similar proceeding. John Conrad, of Global Consumer Services, stated that "after carrying the re-examination fight for the contractors who purchased Red Baron equipment, Global... has accepted the decision of the Board of Patent Appeals and will not appeal the decision..."

In view of the legal implications of this decision, consultation with patent counsel is necessary for contractors and others to determine their rights and responsibilities. GPAC has again begun contacting contractors and others regarding licenses to use the patented process.

By Lloyd A. Fox, Esq., The Environmental Management Group, Inc. and John A. Dietrichs, Asbestos Abatement Services, Inc.



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## **U.S. PATENT OFFICE AFFIRMS NATALE NEGATIVE-AIR PATENT**

**Board of Appeals Reverses Patent Examiner's Rejection**

***12 Additional Negative Pressure System Claims Allowed***

WASHINGTON, D.C.—The U.S. Patent and Trademark Office's Board of Patent Appeals and Interferences has upheld all the original patent claims of Anthony Natale and GPAC, Inc., to the negative air filtration systems used at America's asbestos abatement sites.

In addition, a March 31 ruling by the Chairman and two Chief Examiners of the Board of Patent Appeals and Interferences recognized 12 new claims which strengthen the scope of the patent. The additional claims were introduced during patent re-examination proceedings and cover further variations of the negative-pressure system.

In its strongly worded, 11-page ruling, the Board of Appeals rejected all arguments presented by a consortium of parties who have been attempting to overturn the patent since it was granted in August of 1986.

Gene Newman, President of GPAC, Inc., the technology rights firm which now owns the patent, said, "we are obviously very happy with the the decisive nature of the ruling and the vindication of our commercial rights. It's now time for GPAC and the industry to turn their focus back to the important issues of the public's health and environmental safety at asbestos abatement sites."

The ruling by the highest appellate tribunal of the U.S. Patent Office is the latest development in a long-running legal battle over the rights to the central contamination control procedure of the nation's \$3 billion-a-year asbestos abatement industry.

This new development is likely to have a significant impact on the nation's asbestos abatement contractors, who must now be licensed by GPAC to legally use the patented contamination control system.

Harvey Jacobson, Jr., of the Washington, D.C., patent law firm of Fleit, Jacobson, Cohn & Price, said that the appeals ruling "reinforces the validity of the Natale patent and clearly gives GPAC the right to begin infringement proceedings against any user of the patented negative-pressure system from the issuance of the patent in 1986 to the present. Contractors who have not been licensed by GPAC and who have been using this system for the last two years could be subject to serious potential liability."

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The decision is particularly significant because it was made after a thorough review of all materials for and against the patent submitted by all parties during the re-examination process. As a result of their review, the appeals board not only upheld the 17 original patent claims, but affirmed the patentability of 12 additional claims related to negative-pressure filtration systems.

Further information:

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MAR 30 1987



27 March 1987

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SUBJECT: Negative Air Patent Update:  
Lawsuit and New Systems

Dear Sir:

We strongly believe that we will prevail in our lawsuit against Mr. Natale, and that you don't need to buy a license!

As you already know, a subsidiary of BRAND has sued A. Natale and several of his associated companies to obtain a ruling that the Natale negative air patent is invalid and unenforceable. We have amassed considerable information that indicates ample prior art exists and, therefore, that the patent should not have been issued. This opinion is shared by a number of knowledgeable people who have personally used similar negative air systems much earlier than the date of the filing of the Natale patent. Although no court decision can be absolutely predicted, we are very confident in our strong position, which has been verified by patent counsel.

We are pleased to announce the development of a new and different containment system by Brand's internal technical group. We are deploying this "Differential Pressure Containment System" as rapidly as possible and invite you to study the attached explanation. We believe this to be a better system. We plan to record this invention with the U.S. Patent Office so that no one else can obtain a patent on this system. We have made a decision to place this new development in the public domain and you are free to use it without need for licenses, fees, or any other form of permission. We have verifying opinions from patent counsel that this new development does not infringe on the Natale Patent.

If you need further information and elaboration on the lawsuit or have questions regarding this new "Differential Pressure Containment System", please call Jim Werner, our Corporate Manager of Technical Services.

THE BRAND COMPANIES



27 March 1987

Differential Pressure Containment System:  
New Ventilation Considerations for Contained Work Areas

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#### A Summary

We have been developing alternative ventilating and engineering control strategies to solve an increasing number of engineering problems and logistical difficulties. For example, large-volume exterior air exhaust in high rise buildings, sealed-window architecture, building interior areas, and underground facilities can be extremely difficult. Heat loss during wintertime work poses its own set of problems. The ease with which plastic sheeting curtains and flaps can be defeated along with their damage potential give us concern. These and other engineering challenges have led us to an alternative ventilating strategy.

While the "negative air" system remains useful, we have growing concerns for any approach which indiscriminately advocates the removal of large quantities of anything, including air, from that contaminated work area. HEPA filter failure, machine cabinet leakage, filter seal leakage, and exhaust duct breach, among others, can all provide an escape route for fugitive airborne asbestos to the outside world. Since the removal of each unit volume of air from that work area is a potential asbestos contaminant vehicle, it makes sense to minimize such flow rather than maximize it, at least from a contingency viewpoint.

Our method doesn't seal established flow paths, provide flap seals, advocate any air exhaust periodicity, or even necessarily call for widespread application of plastic, and, we believe provides a viable alternative which draws upon the "prior art" knowledge and wisdom from years, if not decades, ago. It is not necessary to use only the "negative air" system since it is not the exclusive solution.

Our system is described here, for your consideration and review:

1. The workspace is isolated and contained by erecting impermeable barriers (plastic sheeting) at all exits or openings, including doorways, duct chases, mechanical shafts, elevator shafts, floor openings, and the like, so that all possible exit routes are effectively barricaded and sealed against air flow.

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Differential Pressure Containment System:

A Summary

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2. If the work is not a part of a renovation, plastic sheeting and protective measures should be used to prevent contamination of, or damage to the remaining finishes, fixtures, architectural, and decorative treatments. If, however, extensive renovation and removal of these components is a part of the project, plastic sheeting use may be extensively reduced, especially on the floor. Our experience proves that heavy demolition of ceiling grid, ductwork, electrical cable and trays, piping, lighting, and scaffolding movement substantially breaches the plastic. Even with careful, effortful plastic repair and maintenance, contamination finds its way between and beneath the plastic layers, aggravating cleanup and decontamination efforts instead of aiding them. In these renovation cases, we believe less residue is trapped, hidden, or isolated from the clearance sampling when plastic is not in the way. Surface decontamination, therefore, is more effective, more efficient, and more likely to produce a truly clean area.
3. A decontamination facility is provided with a HEPA filter and with rigid, gasketed doors, not light weight leak-prone plastic flaps. The decon unit consists of a clean room, fixed wall with rigid gasketed door with a small HEPA filter, shower room, additional fixed wall with louvered door, and a dirty equipment room. Please see attached Illustrations. The HEPA filter permits a very limited air flow inward through the decon unit to fix and provide filtration for any outward airflow in the event of ventilating fan failure.
4. With the air inlet potential severely restricted, only enough air is exhausted through a HEPA equipped Air Filtering Device (AFD) to reduce the workspace pressure by a readable amount. From a practical standpoint, this pressure differential should be in the .02 to .04 inches of water column range. (In the .06 inch range, plastic begins to float from the floor and fall from the walls). At this point, the workspace is effectively contained and minimal amounts of air are released to the outside.

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Differential Pressure Containment System:  
A Summary

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5. Additional AFD machines should be provided, free-standing, inside the workspace, to circulate the air within the area to filter and trap contamination out of the air. Depending on work methods, other engineering controls, asbestiform type, material characteristics, and previous treatments, the number of machines may be varied as little or as much as needed to lower the airborne fiber levels in the work area. Current calculation criteria would allow more airflow with the same number of machines, since restrictive cowlings, ductwork, and absence of pressure head make the "interior" AFD machines more air-flow efficient. This strategy may be carried further by exhausting interior machine discharges in the direction of the workers, thereby diluting their breathing zone fiber levels, reducing respiratory protection device challenge, pushing contamination away from them, and enhancing worker protective measures.

Components of this system have been utilized on several projects since the spring of 1986, and have substantial related monitoring and clearance data. As we use the system in its entirety on numerous projects we will build a substantial air monitoring result data base which will positively verify the statements and conclusions above.

This system is compatible with your present equipment. However, we recommend that any timers, or automatic control devices be jumpered or defeated so that they cannot interfere with continuous operation.

We have asked reputable patent attorneys for opinions on this system. They state that this system does not infringe on the Natale patent.

Respectfully submitted,

James L. Werner



A TECHNOLOGY MANAGEMENT COMPANY

# NEWS RELEASE

## NOTICE TO ASBESTOS ABATEMENT AUTHORITIES

### Brand System Does Not Infringe on Natale Patent No. 4,604,111

MAPLE SHADE, N.J.--GPAC, Inc., has announced that the air filtration system now being recommended by the Brand Companies for asbestos abatement work does not infringe on GPAC's Reduced Pressurization and Filtration System patent (U.S. Patent No. 4,604,111). GPAC, Inc. is a technology management company whose patented contamination control system is widely used throughout the abatement industry.

GPAC President Gene Newman said the company felt it was necessary to make a statement on the issue because of the number of requests he had received for more details on the new system described by Brand in letters sent to contractors and the industry press on March 27. Sent from the Brand Companies headquarters in Park Ridge, Illinois, those letters detail a system different from GPAC's invention. Brand suggests the system be used to control airborne contamination at asbestos abatement sites.

#### Practical Matter: Does The Brand System Work?

GPAC's Newman explained: "We're being asked two questions: does the Brand system infringe on GPAC's patent, and is it as effective as our invention in controlling carcinogenic airborne contamination at asbestos abatement sites? The first question is a legal one; it's our position that the Brand system does not infringe on the GPAC patent. The second question is a practical matter: does the Brand system work? We can't answer that definitively because we don't have test data documenting the effectiveness of the Brand system under daily field conditions." Further, Newman suggests one should question whether the Brand system will be as safe and effective in lowering airborne asbestos concentrations within the work area. This is because the Brand system appears to require a substantial number of air filtration devices that exhaust directly into the work area, thus potentially stirring up the asbestos fibers. In addition, Newman said one should question whether the Brand system is cost effective.

Newman said GPAC has no plans to perform tests on the Brand system, but indicated that end users would be well advised to review hard test data before utilizing any contamination control system.

#### Adequate Testing Crucial To Evaluating A New System

"Testing a contamination control process is a costly and complicated undertaking," Newman said. "Many years and more than half-a-million dollars were spent to test the GPAC system with the electron microscopy methods that provide the most accurate results about air quality inside and outside a contained asbestos work site. We can vouch for the effectiveness of our system because we conducted thousands of air tests in a wide variety of structures where asbestos abatement procedures were actually taking place."

#### GPAC Unaware of Any Brand Test Data

"We are unaware of any comprehensive comparison tests which have been performed by reputable authorities between our system and Brand's. We further assume that end users, who will ultimately be held accountable for the effectiveness of the contamination control systems, would want to review such test data before using a newly-announced system.

#### Contact Brand Headquarters For Supporting Data on New System

"Therefore," Newman said, "we can only suggest that interested parties contact the Brand Companies headquarters for this data rather than GPAC."

## NIAC FILES SUIT

The National Insulation and Abatement Contractors Association (NIAC), formerly the National Insulation Contractors Association (NICA), announced May 24 that a legal suit has been filed seeking a declaratory judgment against GPAC, Inc. The suit is being undertaken, according to NIAC, to contest GPAC's patent rights to the "negative air" filtration system, commonly used by asbestos abatement contractors.

The basis for the declaratory judgment lawsuit is that the "negative air" filtration system was specified and used on asbestos abatement projects as well as described in publications more than one year prior to the patent application filed by Anthony Natale, the alleged inventor.

The suit was filed on May 23 by Performance Asbestos Service, Inc., as plaintiff in Federal District Court, Charlotte, N.C., for declaratory judg-

ASBESTOS ISSUES '89—JULY

ment seeking to have the patent declared invalid. Lead counsel is McNeill Stokes of Stokes, Shapiro, Fussell and Wedge of Atlanta, and co-counsel is patent attorney Robert Vanderhyne, of Arlington, Va.

The National Insulation and Abatement Contractors Association, a non-profit association, has formed the NIAC Defense Fund. The Fund's sole objective, according to the press release, is to support this litigation via donations from members of the entire asbestos abatement industry. Companies or individuals who do-

nate a minimum of \$1,000 to the Fund will receive periodic financial statements of the Fund and progress reports of the litigation. Regional and national contractors are encouraged to donate more than \$1,000. All donors will be kept confidential, if desired, and have no legal connection to the litigation. Only donors will receive the progress reports.

NIAC's board of directors is the governing body of the NIAC Defense Fund. The administration of the Fund will be under the direction of

William Pitkin, executive director of NIAC. All donations should be made out to NIAC Defense Fund.

Dan Osborn, current president of NIAC, said that one of the Association's missions is to provide solutions to the problems and needs of the asbestos abatement contractor. The NIAC Defense Fund, he said, is just one example of the Association's many actions under way to fulfill this mission. He encouraged all asbestos abatement contractors and suppliers to contribute to the Fund.

For more information, contact: William Pitkin, NIAC Defense Fund, 99 Canal Center Plaza, Suite 222, Alexandria, VA 22314; (703) 683-6422.

Q. What legal action has been taken to date concerning the Natale "Negative Air" Patent?

A. Performance Abatement Services, Inc. ("PAS") has filed a Complaint in the United States District Court in Charlotte, North Carolina, seeking to have the Negative Air Patent declared invalid. GPAC, Inc., the holder of the Negative Air Patent, has countersued PAS in the United States District Court for the District of Delaware, but PAS moved that Court in Delaware to stay that action because the North Carolina case was the first one filed.

Q. What is the basis for claiming that the Negative Air Patent is invalid?

A. PAS asserts that the Negative Air Patent is invalid as anticipated since that subject matter of the patent was in use by Natale and by others, and known in publications, more than one year prior to the application for the patent in November, 1981. In addition, PAS alleges that the subject of the patent was obvious to those of ordinary skill in the art.

Q. What are the specific prior uses of the Negative Air Patent which would cause it to be invalid?

A. PAS asserts in its Complaint in the North Carolina case that a negative air system with isolation barriers and airlocks was specific and utilized for removal of asbestos at certain naval facilities for publicly-bid projects in the late 1970's. The Complaint further asserts that plastic flaps sealing decontamination areas were specified and used in June, 1979 on a publicly-bid school asbestos removal project in Roanoke Rapids, North Carolina, and that the Greensboro, North Carolina, Post Office, in July-October, 1980, a negative air system with isolation barriers and overlapping plastic flaps was publicly used. In addition, PAS asserts that Natale himself used the negative air system in 1980 during two asbestos removal projects at public schools in Cinnaminson, NJ. PAS's attorneys are aware of other prior uses, too, in Kentucky, Pennsylvania, and elsewhere.

Q. Didn't the Board of Patent Appeals rule in a Re-examination Procedure that the Negative Air Patent was valid?

A. The Patent Examiner originally rejected the Negative Air Patent on the grounds of the prior uses and the further use by Natale himself on the two School Board projects in Cinnaminson, New Jersey.

However, the Patent Appeals Board reversed the Patent Examiner on a procedural ground—that the Patent Examiner improperly considered external facts submitted by affidavits. Because the Patent Examiner was not entitled—by the law setting up the Patent Office Re-Examination Procedures—to take external testimony and could consider only prior patents, and prior publications, he was not entitled to invalidate the Negative Air Patent on the basis of the evidence before him. Public use and related testimony is reserved for the courts, as on the present infringement lawsuit pending in North Carolina.

Q. When will the North Carolina action be resolved?

A. PAS presently intends to move within the next two weeks for summary judgment in the North Carolina action. A Motion for Summary Judgment simply is one in which PAS will argue that given all the facts of record (of the prior uses, prior publications, etc.), PAS as a matter of law is entitled to a judgment that the Negative Air Patent is invalid. GPAC will be entitled to respond to this Motion within thirty days after its filing, and a decision would likely be handed down from the court within two or three months after the filing of GPAC's response. If the case is not resolved by Summary Judgment, a trial is likely 12-18 months away.

Q. Does the Natale 4,604,111 cover all negative air systems for asbestos removal?

A. No. The claim, which are the measure of the Natale patent, are specific to a particular flap arrangement used in a negative air system. There are many publicly used negative air systems prior to Natale's Patent application that cannot be considered an infringement of the Natale Patent since they were earlier than Natale. Also, GPAC has publicly indicated that the Brand negative air system is not an infringement of the Natale Patent.

Q. How can I know whether a system I use infringes the Natale patent?

A. If the Natale Patent is found invalid, then it cannot be infringed. Prior to a final decision on the validity of the Natale Patent, if you have a question as to whether or not a system you employ, or intend to employ, is covered by the Natale Patent you should seek an opinion from a competent patent attorney.

Q. What should a contractor do if pressed to purchase a license by GPAC?

A. Whether to purchase the GPAC license obviously is a business decision which must be made by each contractor. However, many contractors from across the country have advised the attorneys for PAS that they too have refused to purchase the GPAC license and have contributed to the funding of the North Carolina litigation.

Q. Can a contractor buy the license from GPAC and also contribute to the litigation fund, given the clause in the license which provides that the licensee cannot challenge the patent?

A. In *Lear v. Adkins*, the Supreme Court held that the public interest required that licensees be able to challenge the validity of patents that they license. A patent licensee cannot be put to the choice of risking liability for infringement of a patent in order to challenge validity.

Q. What if an owner requires that the asbestos removal firm be licensed by GPAC?

A. You may tell the owner that you as an asbestos removal contractor will agree to inclusion of a standard clause that you will defend and indemnify the owner and architect/engineer in the event a patent infringement is brought against them. Although the contractor again faces the business decision of whether to agree to such a claim, you should note that a patent indemnification clause is standard in most construction contracts. You can also agree to practice a negative air system not covered by the Natale Patent. If the owner continues to insist on a license, then you should look into whatever bid protest procedures might be available, for specifying the Natale system alone could arguably be a wrongful restraint on free competition among bidders.

Q. What should the specifier do to insure a non proprietary Differential Pressure Containment System specification?

A. Specifications should state that the contractor is responsible for complying with all regulations as well as all patents pertaining to processes that the contractor elects to use. It could also require the contractor to indemnify the owner and the owner's representative for all damages arising from his or her failure to comply.

The Brand system which does not infringe on the patent basically increases the integrity of the decontamination chamber by using solid airlock doors with HEPA filtration and rubber seals. This improvement of the chamber reduces the number of air filtration machines required to reduce the pressure in the room. Other air filtration machines are used within the work space to recirculate the air through the HEPA filters and thus clean the air.

Brand has made the Differential Pressure Containment System available for use in the public domain, and is available for use without any fees or royalties. For more information on the Brand System, contact Bill Pitkin at NIAC.



CALIFORNIA  
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## CAABL NATALE PATENT POSITION PAPER

MAY 23, 1989

During numerous local, regional, and national meetings, many asbestos abatement industry representatives decided that the following suggestions, in either single or multiple combinations, offer a viable approach in establishing daily operations and long term corporate policy regarding the Natale Patent.

1. Acquire a short term license under the patent.
2. Inform consultants, regulatory agencies, and school boards of the alternatives in air differential systems. Recommend consultants include in their specifications an indemnification clause protecting and relieving them from any potential liability stemming from the patent.
3. Utilize the Brand system.
4. Act as a good corporate citizen and obtain a competent legal opinion from a patent attorney. A legal opinion creates a significant level of comfort, a period of grace, while your patent attorney is evaluating all the facts to determine whether the Natale Patent is valid and enforceable. This is an act of good faith and an acceptable legal option available to contractors. Envirocon, an asbestos abatement firm, has retained the services of Anderson Russell Kill & Olick with the particular lawyers of Mr. John Kidd and Mr. Edward Fitzpatrick, to produce an legal opinion regarding the Natale patent. The Anderson firm lawyers preliminary investigation of various litigation records suggests that the patent may very well be held invalid and unenforceable under a court test. Any contractor willing to co-sponsor the legal opinion can contact Mr. Clayton McNeil, president of Envirocon at 813/286-8680. Attorneys' fees will be pro-rated based on the number of participants. As an alternative, individual contractors can secure their own opinion paper, but chances are the attorney fees will be higher.



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CAABL Natale Position Paper  
page two

5. Donate to the National Insulation and Abatement Contractors Association (NIAC) Defense Fund. On May 19, 1989, NIAC announced that a legal suit has been filed seeking a summary judgement against GPAC, Inc. This is being undertaken to contest GPAC's claim of patent rights to the "negative air" filtration system, commonly used by asbestos abatement contractors. Contact Mr. Bill Pitkin, Executive Director of NIAC, at 703/683-6422 for information.
6. Participate on a Federal level. Dan Steinway, of the Anderson firm's Washington, D.C.'s office and legal counsel for the ad hoc committee that testified on the proposed changes to the current requirements under the asbestos NESHAP program, suggests the vehicle for industry advocacy already exists and may be utilized to express concerns arising out of the EPA requiring the use of a patented process where the patent may be invalid.

Each contractor must proceed with a policy that best reflects their own corporate needs. Understanding the options will help alleviate any "negative pressure" created by GPAC's quick and creative patent campaign. Those that feel they should pay will do so, while those that wish to question the patent offer will counter with jurisprudence, intuition, and ingenuity.

**Press Release****Contact:**

Mr. Bill Pittman  
President, International Air Filter or  
Mr. David Naylor  
National Sales Manager, ARAMSCO

FOR IMMEDIATE RELEASE: June 3, 1989

**ALTERNATIVES FOR FILTERING AIR AND MAINTAINING NEGATIVE PRESSURE  
IN CONTAINED ABATEMENT WORK AREAS**

An alternative process for filtering air and maintaining negative pressure within a contained asbestos abatement work space was recently announced by ARAMSCO's David Naylor and International Air Filter's Bill Pittman. The system uses Air Filtration Devices (AFD's) and a single Negative Air<sup>®</sup> Machine to exhaust the contained space and accomplish what previously required multiple Negative Air Machines.

Chief among its benefits is the avoidance of the Natale licensing fee but additionally the system offers better control of heating and ventilating costs, lower interior fiber counts than possible with any other system, greatly improved air movement within the work area, minimal labor required for job set up, quicker clean ups and the ability to create your own area of circulation. The end result then is cost savings and reduced risk of contaminant escape.

The product responsible for the design of this method is the RAMIT 2.5M Air Filtering Device (AFD) developed cooperatively by International Air Filter, Elgin IL and ARAMSCO, Thorofare, New Jersey and Elgin IL. Named for a frequently heard expression of Asbestos Contractors in response to recent innovations in patent law, RAMIT recirculates air within the contained space at up to 99% efficiencies at .3 micron.

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RAMIT filters air three times with two, 2-ply 20% efficient pre-filter pads, two, 3 ply 35% efficient pre-filter pads, and one twelve pocket, non-shedding micro-synthetic MF95 ASB pocket filter. The MF95 ASB is self supporting in a disposable PVC enclosure and is factory sealed and certified.

The blower is held within a heavy duty, welded, stainless steel housing and is a 2500 CFM, 12" diameter double width, double inlet blower. The three speed, 3/4 hp motor requires a single 115/1760 outlet.

While the competitive system remains useful, there are growing concerns for any method that advocates the removal of large quantities of anything, including air, from a contaminated work area. HEPA filter failure, machine cabinet leakage, filter seal leakage, and exhaust duct breach can all provide an escape route for airborne asbestos. Since the removal of each unit volume of air from that work area is a potential asbestos contaminant vehicle, it makes sense to minimize such flow rather than maximize.

The RAMIT method was developed as an alternate ventilating and engineering control strategy to solve a number of problems and logistical difficulties. For example, large volume exterior air exhaust in high rise buildings, sealed window architecture, interior areas and underground facilities can be extremely difficult. Heat loss during wintertime work poses an additional set of costs and problems. The ease of which plastic sheeting curtains and flaps can be defeated along with their damage potential is a concern. This method, using AFD's and one Negative Air Machine doesn't seal established flow paths, provide flap seals, advocate any air exhaust or even necessarily call for widespread application of plastic. Briefly, the system is set up as follows.

The workspace must first be isolated and contained by erecting impermeable barriers at all exits or openings so that all possible exit routes are sealed against positive air flow. If the work is not part of a renovation, plastic sheeting, spray poly, asbestifoam, and other protective measures should be used to prevent contamination damage to the remaining finishings, fixtures, architectural and decorative

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A decontamination facility is provided with a HEPA filter and rigid, gasketed doors. The decontamination unit consists of a clean room, fixed wall with rigid gasketed door and a small HEPA filter, shower room, additional fixed wall with louvered door, and a dirty equipment room. The HEPA filter permits a very limited air flow inward through the decon unit to fix and provide filtration for any outward air flow in the event of ventilating fan failure.

With the air inlet potential severely restricted, only enough air is exhausted through a HEPA equipped AFD to reduce the workspace pressure by a readable amount. From a practical standpoint, this pressure differential should be in the .04" to 10" water column range. At this level, the workspace is effectively contained and minimal amounts of air are released to the outside.

Additional RAMIT machines should be placed free standing inside the workspace to circulate the air within the area and to filter and trap contamination out of the air. Depending on work methods, the number of machines may be varied as little or as much as needed to lower airborne fiber levels in the work area. The following example illustrates.

An area to be abated is 50 feet wide by 200 feet long with a 12 foot ceiling for a total of 120,000 cubic feet. Since each RAMIT can move air at a rate of 2500 cfm, under this configuration the air could be completely filtered and circulated every six minutes (ten air changes per hour) with just eight RAMIT units. One 2000 cfm negative air machine exhausting to the outside maintains the necessary negative pressure.

This strategy may be carried further by exhausting interior machine discharge in the direction of the workers thereby diluting their breathing zone fiber levels, reducing respiratory protection device challenge, pushing contamination away from workers and enhancing protective measures.

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The RAMIT system and RAMIT units can enhance any asbestos abatement project. It maximizes protection for the workers, other building occupants and the outside environment. In addition to circumventing the Natale patent it provides a cost effective, safe and efficient process for removing airborne asbestos contaminants.

For further information on the RAMIT system please contact David Naylor at ARAMSCO, 1655 Imperial Way, Thorofare, NJ. 08086. 609.848.5330.

ARAMSCO is a full service distributor and product innovator of safety supplies and equipment for the hazardous environment. International Air Filter, 200 N Spring St., Elgin IL 60120. 312.742.3900, designs and manufactures a broad range of high efficiency air filtration products for the industrial and commercial market.

THE GLOVE BAG  
AND  
THE CONTROVERSY SURROUNDING ITS USE  
AN EXPLANATION

PRESENTED AT

CRITICAL ASBESTOS ISSUES:  
CLEARING THE AIR

NEWARK, NEW JERSEY

JUNE 28, 1989

BY PAUL HEFFERNAN  
VICE PRESIDENT  
DIRECTOR OF REGULATORY AFFAIRS  
KASELAAN & D'ANGELO ASSOCIATES, INC.  
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ON DECEMBER 17, 1988, following an inspection of an asbestos abatement project, OSHA citations for contractor alleged violation of the federal asbestos construction standard (29 CFR Part 1926.58) gained much interest and has confused many asbestos abatement professionals.

In its Notice of Violation, OSHA informed the contractor that 1926.58 (e) (6) had been violated because asbestos pipe insulation had been removed by use of glove bags, without use of negative air pressure in the work area. Personnel using the glove bag wore protective clothing and respirators. Personnel and area sampling revealed no significant elevated airborne fiber level. Violation notices have been issued to other contractors under similar circumstances.

Why, it is asked, is the use of a glove bag by persons wearing protective clothing and respiratory protection a violation of OSHA's standard? Why, it is asked, is the use of a glove bag in a work area having airborne fiber levels less than the permissible level a violation of the OSHA standard? Why, it is asked, did OSHA change its interpretation of the standard?

Lack of understanding, inadequate communication, and mis-guidance have resulted in asbestos abatement contractors and consultants being surprised and confused by OSHA's seemingly sudden enforcement of a provision in its asbestos construction standards pertaining to the use of "glove-bags."

The situation developed because, as asbestos abatement work practice procedures were developed over the last ten years, innovations such as glove bag use were taught and implemented. Then the regulations changed, and very few noticed.

A look at the evolution of CONTRADICTIONARY GUIDANCE sheds light on the issue. Glove bags were first introduced by the EPA in its guidance document known as the Blue Book in 1983. The devices were offered as small containment devices that could be used instead of fully enclosing a large area with polyethylene wall and floor covering when relatively small amounts of asbestos pipe insulation were to be removed. Subsequent EPA publications further established the apparent "acceptability" of the glove bag concept:

- o Engineering controls, such as...exhaust ventilation, shall be used to meet the exposure limits...(OSHA 29 CFR 1910.1001 (c) (1) (i), 1976).
- o Employees engaged in...the removal, or demolition of pipes...covered or insulated with asbestos shall be provided

with respiratory equipment and with special clothing. (OSHA 29 CFR 1910.1001 (c)(2)(iii), 1976).

- o EPA sponsored training centers curriculum evolved from a refinement of guidance presented by EPA in its Blue Book "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings", March 1983." In instruction for Confining and Minimizing Airborne Fibers, training centers stated that glove bags were used to form mini-containment areas around section of pipe. Instruction in the Glove Bag Technique for Pipe Lagging Removal implied that one or more bags were needed, depending upon the size of the project. The work area should be roped off and warning signs posted. Use of barrier tape was recommended. January 1985 - present).
- o It is highly recommended [not required] that the work area be enclosed through the use of plastic barriers... (EPA Asbestos Waste Management Guidance, p.18, May, 1985).
- o Containment bags may be used instead of constructing containment barriers around the work area. The bags....let a worker remove insulation without exposure to asbestos fibers. (EPA "Purple Book", Abatement Methods for Pipe and Boiler Insulation, 5.2: p 5-8, June 1985).
- o Occupational Safety and Health Administration, Construction Standard for Asbestos, 29 CFR Part 1926.58. Federal Register June, 1986.
- o Asbestos removal contractors are encouraged to employ safety procedures beyond the minimum requirements of EPA and OSHA. The use of negative air pressure systems is highly recommended. (EPA Asbestos Waste Management Guidance, p. 18, May, 1989).

- o Glove bags are small enclosures used for asbestos stripping (EPA NESHAP, proposed January 10, 1989).

Incomplete comprehension of the current standard rises from a subtle difference between asbestos abatement and routine maintenance; between applicability of OSHA's standard based upon asbestos fiber concentration in the workplace for the construction industry, and applicability based upon the work being asbestos abatement rather than maintenance; between EPA's guidance issued before the OSHA regulations, or later mandatory procedures of OSHA.

OSHA regulations (29 CFR 1926.58) separately and independently define:

- o Renovation - modifying a structure where exposure to asbestos may result.
- o Repair - reconditioning or rebuilding substrates where asbestos is present.
- o Removal - the stripping or taking out of asbestos materials
- o Regulated Area - demarcated area where airborne asbestos may exceed Permissible Exposure Level of 0.2 f/cc (PEL). It may take the form of a temporary enclosure (required by paragraph e(6) of the standard, or in another manner. A REGULATED AREA must be established where airborne asbestos exceeds or is likely to exceed the PEL.

Contractors should be aware that under the asbestos construction standards, SEPARATE REQUIREMENTS are established for asbestos removal, demolition and renovation operations (paragraph e(6)) that are NOT dependent upon measured airborne fiber levels:

- i. Whenever feasible - negative air enclosure before removal, demolition or renovation;
- ii. designate a competent person who has several responsibilities;
- iii. competent person shall be trained;
- iv. PIPE REPAIR, VALVE REPLACEMENT, AND OTHER GENERAL BUILDING MAINTENANCE OR RENOVATION of small scale and short duration - not required to comply with paragraph e(6).

#### ITEMS I AND IV ARE KEY ELEMENTS IN THE GLOVE BAG CONTROVERSY

There are two provisions of respiratory protection that are often misunderstood relative to glove bag asbestos removal. (1)

Respirators must be worn while installing engineering or work practice controls; during maintenance and repair activities where engineering or work practice controls are not feasible; and where even with work practice and engineering controls, the airborne level cannot be reduced to or below the PEL. (2) Respirators are not required to be worn if the airborne asbestos concentration of the work area is below the PEL. These requirements have no influence on the need to establish negative pressure in the work area for asbestos removal activities.

It is fairly well established in the OSHA regulation that asbestos removal operations have their own specific requirements.

Paragraph (g) establishes Methods of Compliance - requiring that employers shall use one or any combination of:

- local exhaust ventilation
- general ventilation systems
- vacuum cleaners with HEPA filters
- enclosure or isolation of process

- wet method
- prompt disposal of asbestos waste
- other work practices per Asst. Secretary

If none of above practices are sufficient to reduce exposure to or below the PEL, then exposures must be reduced to the lowest levels attainable and supplemented by the use of respiratory protection - to achieve compliance with the PEL.

Paragraph i(4) establishes separate protective clothing requirements for removal, demolition and renovation operations:

- competent person must periodically examine clothing for rips or tears
- detected rips or tears be immediately mended or clothing immediately replaced

APPENDIX F to 1926.58 - Non-Mandatory work practices and engineering controls for major asbestos removal, renovation, and demolition projects provides guidance and procedures which, if followed, would enable compliance with paragraph e(6) that requires whenever feasible, a negative-pressure enclosure before commencing major asbestos removal, demolition or renovation operations. Major asbestos operations are described as projects conducted to abate a recognized asbestos hazard or in preparing for building renovation or demolition. Careful planning, followed by construction and operation of polyethylene containment and enclosures with decontamination facilities and negative pressure within the containment are described.

Also often mis-understood and contributing to the situation at hand is:

APPENDIX G TO 1926.58 - NON-MANDATORY work practices and engineering controls for small-scale, short duration asbestos renovation and maintenance activities. It provides guidance for persons seeking exemption from compliance with paragraph e(6). Paragraph e(6) may be complied with, but if exemption is chosen, then this appendix becomes mandatory. Although small-scale short-duration projects are not defined in the definition section of the regulation, there are several examples of OSHA intent throughout the regulation. And a definition of relevant tasks is given in this appendix. OSHA said that it found evidence that certain engineering and work practice controls were capable of reducing workers exposure below the action level of 0.1 fiber per cc. of air. OSHA listed wet methods, removal methods, use of glove bags, removal of entire sections of pipe and use of mini-enclosures as examples of these effective practices. OSHA anticipated that electrical, carpentry, utility, plumbing, and interior construction trades might wish to avail themselves of the exemption.<sup>1</sup> However, to be exempt, the entire appendix must be complied with. OSHA did not postulate that use of a glove bag exempts one from the other provisions of the standard. A glove bag was stated to be a 40 inch wide device that when properly installed and used provides temporary work enclosure for small-scale renovation or maintenance jobs. Glove bags are single use devices - intended by OSHA to be used singularly. One bag to<sup>2</sup> complete one job.<sup>3</sup> Any larger activity would be construed to be a major removal operation.<sup>4</sup>

In addition to using certain described work practices, in order to qualify for the exemption from paragraph e(6), a facility must have a written asbestos inspection, periodic examination and asbestos maintenance program in effect. OSHA restated its intended affected population by requiring that members of the facilities maintenance and engineering staff of electricians, HVAC engineers, plumbers, etc. be trained in safe asbestos procedures.

Each of the appendices requirements must be implemented in order to qualify for exemption from paragraph e(6).

In summary - popular belief to the contrary - current federal regulations require that all asbestos be done under negative pressure whenever feasible, regardless of what type and extent other engineering controls are used.

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