Related to a different audience, in the U.S. Rochester NACE (1)

FOR PROJECTIONIST 10/9/74

~~The main portion of~~ my presentation will be concerned with the asbestos/health question. I will attempt to provide you with an objective outlook, although I may be just a little biased. ~~I will also discuss our "Calidria" Asbestos products which are used by the plastics industry for viscosity control, thixotropy and reinforcement.~~

~~First we'll talk about the fact that~~ asbestos has been used safely for years, is being used safely today, and will be used safely in increasing amounts and in many new applications. ~~If I can convince you of this then you'll be more receptive to the commercial message about our Calidria products.~~

All of you have seen airborne dust particles in a shaft of sunlight in a darkened room, and you have probably been surprised at the amount of them. Man can survive in these conditions because of a super-efficient respiratory system, from the hairs in your nostrils to a sticky mucous in the lining of your lungs which continually moves foreign particles to the throat.

Natural and domestic dusts are removed with little difficulty but industrial dusts can produce systemic or local effects which are harmful. Systemic damage to other than the lungs is caused by materials such as lead and mercury. Lung damage is often caused by materials such as silica and asbestos, and is known as lung fibrosis.

O = slide number

* = when to exhibit slide

PLAINTIFF'S EXHIBIT

UC-4513

X416832

(1) Bad Press
(2) Good Press

True story is in between and I will discuss that phase of the asbestos/health question.

Asbestos has received a great deal of attention and publicity in recent years, especially after it was designated a "target health hazard" by OSHA and a "hazardous air pollutant" by the EPA.* Many of the articles on asbestos by the press have been emotionally oriented or distorted and in some cases stories have been sensationalized, based on obvious misinterpretation of facts.*

Asbestos is a commerical term used to describe six naturally-occuring "asbestiform" minerals* that are fibrous, hydrated metal silicates. The six varieties are divided into two classes, serpentine and amphibole, based on their crystal structure. Chrysotile is the only member of the serpentine class while the amphiboles include crocidolite, amosite, anthophyllite, tremolite and actinolite. Chrysotile is by far the most used variety and accounts for over 95% of U.S. consumption.

Crocidolite is imported from South Africa and is used to reinforce a limited variety of plastics where its pronounced color is not objectionable. Amosite, also imported from South Africa, is used primarily in thermal insulation. Anthophyllite is imported from Finland and used primarily as a filler for polyprophlene and in insulating materials (RG-600 Ref.). A comparison of the four varieties of asbestos which are of commercial importance ~~is presented in Table II~~. It should be noted that there are significant differences between chrysotile and the amphiboles with regard to chemical composition and certain physical properties.

WHERE IS ASBESTOS USED AND WHY?

Asbestos has served mankind for over 100 years in a broad variety of applications. The general areas in which asbestos is used in the United States are shown in ~~Table III~~. Based on information from asbestos producers and consumption surveys, it is estimated that the plastics industry uses about 1/3 of the 800,000 tons consumed annually, which makes it the largest single user of asbestos fiber.

The largest uses of asbestos by the plastics industry are in vinyl/asbestos floor tile and in phenolic molding compounds. It is also used in other plastics as shown in Slide 3. Important functions of asbestos in plastics are reinforcement, dimensional stability, heat resistance, flow control and general-purpose filling. Most of the functions are supplied by short fiber chrysotile asbestos fiber, although longer chrysotile fibers and other asbestos varieties are sometimes required for particular properties.

X416833

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/2

ch evidence as there is does not indicate
stos fibers present in water, beverages,
inistration of drugs.
agreement that the public is not in any
o recognized that excessive, long-term
health problems. During the past two
enacted by the Federal Government to
e to asbestos fibers and to minimize fiber
important regulations are those issued

Safety and Health Act of 1970 established
istration (OSHA) within the Department of
nistration and enforcement. Research and
artment of Health, Education and Welfare
Occupational Safety and Health (NIOSH).
the nation's 80 million workers are
d January 4, 1972, OSHA announced a
proving health factors associated with
ubstances were designated to be the
OSHA and NIOSH: Asbestos, Cotton Dust,

sbestos Dust was published in the Federal
June 7, 1972. The basic exposure standard
f 5 fibers, longer than 5 micrometers,
t is to be reduced to 2 fibers per cubic
tration of 10 fibers per cubic centimeter
rst basic requirement of the new standard
fiber concentrations are in excess of
repeated as necessary to ensure that
ss of the exposure limits.
there are no further compliance
s. Medical examinations are required
to airborne concentrations of asbestos
mple and should cost no more than $50

required in the construction trade
fireproofing materials, and for the
tection is not required for any other

ysotile, which set it apart from the
espread and increasing usage, are world
exibility, positive surface charge, low
index. It is conservatively estimated
3,000 applications and in most of these
t for which no replacement is readily

that the use of chrysotile asbestos and
y increasing. There is increasing
more hazardous to human health than
ocidolite in Britain has been restricted
was sufficient evidence to suggest
ed for crocidolite wherever possible."

tos, like many other foreign bodies, can
~~fibrosis~~), commonly referred to as asbestosis.
(lung cancer) are the two most common
tant to note that, based on epidemiological
arily in workers with high, long-term
urther interest that one noted researcher
ases is peculiarly related to or caused
ber (3). Another important consideration
ing and lung cancer as reported by Dr. E. C.
n this study they reported that:
g cancer is uncommon among asbestos insulation
cigarette smoking and that if the risk is
t great."
has more recently been associated with persons
an extremely rare cancer of the lining of
avity (peritoneum). Most researchers concur
mesothelioma and crocidolite, but not

ee on Asbestos Cancers of the International
sion of the World Health Organization) has
evidence of mesothelioma or lung damage by

X416835

X416834

Union Carbide trial exhibit UC-4513: Annotated Speech Script on Asbestos and Health and Calidria RG-600 and R...
ACL Doc 19076 · Page 3 of 16
Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/3

ch evidence as there is does not indicate
stos fibers present in water, beverages,
inistration of drugs.
agreement that the public is not in any
so recognized that excessive, long-term
health problems. During the past two
enacted by the Federal Government to
e to asbestos fibers and to minimize fiber
important regulations are those issued

Safety and Health Act of 1970 established
istration (OSHA) within the Department of
nistration and enforcement. Research and
artment of Health, Education and Welfare
Occupational Safety and Health (NIOSH).
the nation's 80 million workers are
ed January 4, 1972, OSHA announced a
proving health factors associated with
ubstances were designated to be the
OSHA and NIOSH: Asbestos, Cotton Dust,

sbestos Dust was published in the Federal
June 7, 1972. The basic exposure standard
f 5 fibers, longer than 5 micrometers,
t is to be reduced to 2 fibers per cubic
tration of 10 fibers per cubic centimeter
rst basic requirement of the new standard
fiber concentrations are in excess of
repeated as necessary to ensure that
ess of the exposure limits.
there are no further compliance
s. Medical examinations are required
to airborne concentrations of asbestos
mple and should cost no more than $50

required in the construction trade
fireproofing materials, and for the
tection is not required for any other

ysotile, which set it apart from the
espread and increasing usage, are world
exibility, positive surface charge, low
index. It is conservatively estimated
3,000 applications and in most of these
t for which no replacement is readily

that the use of chrysotile asbestos and
y increasing. There is increasing
more hazardous to human health than
ocidolite in Britain has been restricted
was sufficient evidence to suggest
ed for crocidolite wherever possible."

tos, like many other foreign bodies, can
~~fibrosis~~), commonly referred to as asbestosis.
(lung cancer) are the two most common
tant to note that, based on epidemiological
arily in workers with high, long-term
urther interest that one noted researcher
ases is peculiarly related to or caused
ber (3). Another important consideration
ing and lung cancer as reported by Dr. E. C.
n this study they reported that:
g cancer is uncommon among asbestos insulation
cigarette smoking and that if the risk is
t great."
has more recently been associated with persons
an extremely rare cancer of the lining of
avity (peritoneum). Most researchers concur
mesothelioma and crocidolite, but not

ee on Asbestos Cancers of the International
sion of the World Health Organization) has
evidence of mesothelioma or lung damage by

X416835

X416834

Union Carbide trial exhibit UC-4513: Annotated Speech Script on Asbestos and Health and Calidria RG-600 and R...
ACL Doc 19076 · Page 4 of 16
Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/4

asbestos to the general public; and such evidence as there is does not indicate any risk of cancer resulting from asbestos fibers present in water, beverages, food or in the fluids used for the administration of drugs.

While there seems to be general agreement that the public is not in any present danger from asbestos, it is also recognized that excessive, long-term occupational exposure can cause serious health problems. During the past two years, significant legislation has been enacted by the Federal Government to reduce and control occupational exposure to asbestos fibers and to minimize fiber emissions to the environment. The most important regulations are those issued by OSHA.

(13) The Williams-Steiger Occupational Safety and Health Act of 1970 established the Occupational Safety and Health Administration (OSHA) within the Department of Labor, which has responsibility for administration and enforcement. Research and related functions are handled by the Department of Health, Education and Welfare (HEW) through the National Institute of Occupational Safety and Health (NIOSH). Five million employers and 60 million of the nation's 80 million workers are covered by OSHA. In a news release issued January 4, 1972, OSHA announced a (14) Target Health Hazards Program aimed at improving health factors associated with working conditions. The following five substances were designated to be the focus of initial and concerted efforts by OSHA and NIOSH: Asbestos, Cotton Dust, Silica, Lead and Carbon Monxide.

(15) The new Standard for Exposure to Asbestos Dust was published in the Federal Register, Volume 37, No. 110 on Wednesday, June 7, 1972. The basic exposure standard is an 8-hour time-weighted average (TWA) of 5 fibers, longer than 5 micrometers, per cubic centimeter of air. The TWA limit is to be reduced to 2 fibers per cubic centimeter on July 1, 1976. A peak concentration of 10 fibers per cubic centimeter is not to be exceeded at any time. The first basic requirement of the new standard is monitoring to determine whether or not fiber concentrations are in excess of the exposure limits and that monitoring be repeated as necessary to ensure that employees are not exposed to levels in excess of the exposure limits.

(16) If exposure limits are not exceeded, there are no further compliance requirements except for medical examinations. Medical examinations are required for all employees in any occupation exposed to airborne concentrations of asbestos fibers. The examinations are relatively simple and should cost no more than $50 per year, per employee.

(17) Respirators and special clothing are required in the construction trade for the spray application of insulation and fireproofing materials, and for the removal of such materials. This special protection is not required for any other

X416835

Union Carbide trial exhibit UC-4513: Annotated Speech Script on Asbestos and Health and Calidria RG-600 and R... Published by AsbestosClaims.Law
ACL Doc 19076 · Page 5 of 16 asbestosclaims.law/library/19076/5

use of asbestos unless exposure limits are exceeded. This is also true for other items such as specially-equipped tools, change rooms, clothes laundering and waste disposal. (18) Caution labels are required on products containing asbestos except where the fibers have been modified by a bonding agent or other material to prevent dusting during any normal subsequent use or handling. The labeling of a product does not prohibit its use. It should be noted here that in at least 90% of the products containing asbestos, the fibers are solidly locked into the product thereby presenting little danger of dust generation during normal use and handling of the product (6).

~~WHAT IS INDUSTRY DOING?~~

~~The Asbestos Information Association/North America reports that,~~ During the past 30 years, the asbestos industry has spent millions of dollars to improve mining, milling, and manufacturing methods ~~(8). The establishment of safer working conditions has been a prime target and this work continues unabated and in close association with government agencies and independent medical researchers~~ (9). The ultimate goals of the asbestos industry are:

---- Reduction of work-area dust to minimum levels.

---- Protection of workers from asbestos-related diseases.

---- Maintenance of environmental emissions at levels low enough to preclude public endangerment.

~~AIR SAMPLING~~

In order to comply with OSHA Standards and to determine the need for dust control measures, air monitoring should be conducted in areas where asbestos is regularly handled or used. The equipment for collecting air samples costs less than $400 and is readily available. A phase contrast microscope can be obtained for as little as $600 or an existing microscope can be modified for "counting" the asbestos fibers in compliance with NIOSH criteria (11).

Air samples have been collected and analyzed on a regular basis by the asbestos industry for years. (20) Except for a few applications where dust control is an engineering problem, industry is finding that dust levels are usually within acceptable standards or that minimum changes are necessary to achieve compliance. ~~Table~~ The summary in Slide 20 is typical of our measurements of dust levels during asbestos handling in various types of plants and operations. The dust levels reported are Ceiling Concentrations and it should be noted that the allowable OSHA level is 10 fibers/cc. Most of the data were collected before the installation of any special dust control measures. ~~Typical microscope views of dust~~. Monitoring often

~~21A~~ ~~21B~~ ~~21C~~

X416836

Union Carbide trial exhibit UC-4513: Annotated Speech Script on Asbestos and Health and Calidria RG-600 and R... Published by AsbestosClaims.Law
ACL Doc 19076 · Page 6 of 16 asbestosclaims.law/library/19076/6

shows that obviously dusty conditions are caused by materials other than asbestos. This does not preclude the need for controls but it could change their scope and facilitate compliance with government regulations. Because of "bad press", asbestos is frequently ordered out of use without regard to whether or not a hazard actually exists due to air contamination. If acceptable dust levels are feasible, there is no need to replace asbestos at the expense of product quality or ecomomic penalty. Before asbestos is replaced, it should be certain that a safer alternative is available (22).

21

DUST CONTROL MEASURES

Asbestos producers and users are spending a considerable amount of time and money on various dust control measures. Conventional means to achieve minumum dust levels include: filtered ventilation systems on process equipment, local ventilation for saws and similar tools, conversion to a "wetted" operation, leak-proof packaging, vacuum clean-up, more care in bag disposal and other asbestos waste handling, and automatic bag openers. Unusual innovations include: palletized asbestos, special packaging, and treated products.

22

Only short-fiber chrysotile is available as pellets, but this product serves a fair portion of the asbestos market. Pellets not only reduce dust during conventional handling but they are also available in bulk hopper cars and can be transferred and used in totally enclosed systems. Barring leaks in the system, dust in work areas is virtually eliminated. Used in bulk, asbestos pellets also reduce shipping costs, eliminate warehouse storage and handling, facilitate automation, reduce clean-up, and eliminate bag handling and disposal. The pellets contain no binder and are friable enough to be dispersed in dry form or in aqueous or resinous systems with conventional high-shear grinding equipment (13).

X416837

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/7

In concluding this section of my presentation on asbestos and health, I want to remind you that asbestos is a potential hazard if used without adequate precautions. But this is also tru of almost all the materials you use.

23 Slide 23

Assuming that you do not have a closed mind about using asbestos, I will now present the "commerical message" portion of my talk.

24 In 1957 Union Carbide discovered an asbestos deposit in central California (slide 24) which is now thought to be the free world's largest single mineral 24A deposit. Without going into any detail I would like to note that this is a very unique deposit:

25
1. It is all chrysotile
2. It is all short fiber
3. The fibers are random-oriented
4. The fiber content is over 50%
5. It lends itself to conventional strip mining

Because the conventional markets for short fiber asbestos are limited and because of the readily available supply from Canada, Union Carbide decided that 26 specialty products were the only way to capitalize on the unique ore deposit. A proprietary process (slide 26) utilizing hydraulic benefication techniques was developed and a semi-works plant was onstream in 1963. All of the Calidria 27 products currently available have the following important characteristics, many ~~most~~ of which are not typical of any other chrysotile asbestos:

28

X416838

IMPORTANT CHARACTERISTICS OF CALIDRIA FIBER

HIGH SURFACE AREA, 60-80 m^2/gm

HIGH TENSILE STRENGTH, UP TO 800,000 psi

CATIONIC SURFACE CHARGE

COLLOIDAL FORM, AVERAGE L/D OF 200

EXTREMELY HIGH PURITY, 90-99% FIBER

ESSENTIALLY INERT

HIGH TEMPERATURE STABILITY-TO ABOUT 700°C

LOW REFRACTIVE INDEX, 1.51 - 1.55

(28) * We now have a diverse range (slide 28) of products used in many applications, some conventional but most of them not.

Today I will only discuss two of our products and one of them is not shown here. If you have any interest in our product line or want samples or more information about our products or the health question, please complete one of the reply cards and return it to me or mail it in.

RG-600 is the product not shown as it has only recently been introduced and is not yet available in production quantities. We do, however, have small tonnage quantities availabe for large-scale evaluation and expect to have our production facility in operation early next year.

X416839

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/9

RG-600 is

A surface-treated, high-purity colloidal asbestos that ef-

nforces thermoplastics and offers unique property

~~ber introduced by Union Carbide's Mining and~~

trast to fiberglass, ~~the new grade of as~~ RG-600

and extruded surfaces, promotes

allows extensive reprocessing

~~this~~ highly liberated Calidria

oling agent. As

and uniformly in

shment of true

resented in ~~Table I~~ Slide 29

does not improve the

ture (HDT) of either

ation with chrysotile fibers

gths of 58% and 27% in

achieved over unmodified

addition to improvements in

reinforced HDPE and PP com-

elatively low filler level of 20%

---

stos RG-600 improves the properties of a

lastics, including polyolefins, styrenics,

tic polyesters, and nylons. Slide 30 In polypropylene,

% RG-600 increased the tensile strength from 4,500

and the flexural strenoth from 6.780 to 12,900 psi.

ame time, the heat-distortion temperature was increased

58 to 123 degrees C.

X416840

reinforcement, "Calidria" asbestos RG-600 allows low-

thermoplastic properties to meet stringent

ents. For example, it is possible to reinforce

ne so that overall properties match or ex-

olystyrene. RG-600 reinforced high-

lly superior to high-impact polystyrene

ated temperatures and in resistance

e. ~~(See figure 2 for pictures~~

thermoplastics reinforced

efins reinforced with

gth, stiffness, and

immersion in

ysotile

oride

g stability.

ounts

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/10

RG-600 is

A surface-treated, high-purity colloidal asbestos that ef-

nforces thermoplastics and offers unique property

~~een introduced by Union Carbide's Mining and~~

trast to fiberglass, ~~the next grade of as~~ RG-600

and extruded surfaces, promotes

allows extensive reprocessing

~~this~~ Highly liberated Calidria

oling agent. As

and uniformly in

shment of true

resented in ~~Table I~~ Slide 29

does not improve the

ature (HDT) of either

ation with chrysotile fibers

gths of 58% and 27% in

achieved over unmodified

addition to improvements in

reinforced HDPE and PP com-

elatively low filler level of 20%

stos RG-600 improves the properties of a

lastics, including polyolefins, styrenics,

tic polyesters, and nylons. Slide 30 In polypropylene,

% RG-600 increased the tensile strength from 4,500

and the flexural strenoth from 6.780 to 12,900 psi.

ame time, the heat-distortion temperature was increased

58 to 123 degrees C.

reinforcement, "Calidria" asbestos RG-600 allows low-

thermoplastic properties to meet stringent

ents. For example, it is possible to reinforce

ne so that overall properties match or ex-

polystyrene. RG-600 reinforced high-

lly superior to high-impact polystyrene

ated temperatures and in resistance

e. ~~(See figure 2 for pictures~~

thermoplastics reinforced

efins reinforced with

ngth, stiffness, and

immersion in

ysotile

oride

ng stability.

ounts

X416840

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/11

As a reinforcement, "Calidria" asbestos RG-600 allows low-cost upgrading of thermoplastic properties to meet stringent application requirements. For example, as shown in Slide 31, it is possible to reinforce high-density polyethylene so that overall properties match or exceed those of high-impact polystyrene. RG-600 reinforced high-density polyethylene is actually superior to high-impact polystyrene in dimensional stability at elevated temperatures and in resistance to solvents such as oil and gasoline. ~~(See Figure 2 for pictures on dimensional stability.)~~

Although strength properties of thermoplastics reinforced with fiberglass deteriorate in water, polyolefins reinforced with RG-600 actually show improved properties. Strength, stiffness, and heat-distortion temperature improve after extended immersion in boiling water.

In comparison to reinforcing with untreated chrysotile asbestos, RG-600 reinforced polypropylene and polyvinyl chloride have markedly superior heat-aging characteristics and processing stability. For example, RG-600/polypropylene composites containing normal amounts of antioxidants have excellent heat-aging characteristics. The coupling agent on "Calidria" asbestos RG-600 overcomes the rapid oxidative degredation at elevated temperatures found in untreated asbestos-polypropylene compounds. Similarly, the processing stability of polyvinyl chloride containing RG-600 is markedly superior to compounds made with conventional asbestos.

X416841

(33) *

A special feature of "Calidria" ~~asbestos~~ RG-600 is its availability as dust-free pellets. These pellets can be handled in bulk with minimum dust. The pellets are also ideally suited for operations using automatic feed equipment. They flow quickly and smoothly through the equipment while generating very little dust. ~~Producers using Banbury mixers will find that the high bulk density of the pellets permits optimum loadings.~~

Conventional mixing equipment can break up the pellets so that the pre-treated fibers disperse quickly and uniformly in thermoplastics. "Calidria" asbestos RG-600 also allows longer mold, screw, and die life than fiberglass. ~~The product has a minimum of magnetite and rock particles that can wear processing equipment. In addition,~~ Since the fibers ~~themselves~~ are non-abrasive.

~~In contrast to fiberglass,~~ "~~Calidria~~" ~~asbestos~~ RG-600 fibers do not fracture during compounding, extrusion, and molding. ~~Thus,~~ thermoplastic scrap ~~containing this fiber~~ can be reprocessed without sacrificing properties. RG-600 reinforced thermoplastics also have smooth extruded and molded surfaces without any visible fiber patterns.

X416842

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/13

The other Calidria product I want to mention is RG-244, a premium grade thixotrope introduced several years ago as a replacement for pyrogenic silica. Due to worlwide acceptance of RG-244, and in spite of the adverse asbestos publicity, we are currently completing a million-dollar expansion of our facility which will double our production capacity.

RG-244 is also a surface modified fiber originally developed to provide maximum thickening efficiency and thixotropy in polyester spray and hand lay-up laminating resins. The surface modification involves the deposition of a silica coating on the fibers. Slide 35 illustrates the thickening efficiency of RG-244 in a typical general purpose polyester resin system. The performance characteristics of pyrogenic silica are also shown at comparable levels of addition. ~~The thixotropic effect which~~ RG-244 also imparts to the resin ~~is depicted in figure~~. At the higher levels of shear, as in a spraying operation, ~~you will note that~~ there is a marked drop ~~off~~ in viscosity with RG-244 contained resin. ~~Whereas,~~ under static conditions the resin exhibits extremely high viscosity. This characteristic of RG-244 to induce rapid viscosity recovery facilitates anti-sag and the maintenance of a smooth uniform coating in spray applications.

In most systems RG-244 does not contribute to color or opacity. Optimum efficiency, stability, and lowest cost are obtained through the use of sonic dispersers, Cowles or similar high energy mixers. However, RG-244 can be incorporated, especially at low viscosities, with low shear propeller type stirers.

X416843

RG-244 exhibits a minimum of dusting and ~~incorporates readily with conventional mixing equipment.~~ wets out rapidly. ~~RG-244 contained~~ with RG-244 polyesters exhibit excellent viscosity, thixotropic and anti-settling stability over long term aging. Clarity of the resin suspension ~~benefit in application by enabling the operator to visually inspect~~ facilitates visual inspection for air entrapment in the glass-mat. This reduces both production time and resin requirement. Unlike some thixotropes, the thixotropy of RG-244 suspensions is relatively unaffected by the addition of styrene after incorporation of the thixotrope. This allows for more versatility in both production and end use application.

In addition to improved technical aspects, there are significant economic advantages ~~by~~ from the use of RG-244. The amount required is ~~usually~~ less than that of most typical thixotropes to achieve comparable viscosity and thixotropic properties and the price is lower.

(36) * We have also found RG-244, since its introduction, to be a very effective thickener in vinyl resin sealants, organosols and plastisols. It is currently being used in a wide variety of adhesives, coatings, mastics and sealants.

In closing let me ~~report~~ repeat that chrysotile asbestos is an important and necessary raw material and that it can be used safely and in compliance with government regulations. Its general use will not be prohibited. I appreciate the opportunity to tell you this and to discuss two of our Calidria products for the plastic industry. Now, I have lots of answers provided that you ask the right questions.

X416844

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/15

Published by AsbestosClaims.Law
asbestosclaims.law/library/19076/16