

What Insurance Issues May Arise From Nanotechnology Claims ?

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Coverage Issues

- General Liability
- Professional Liability
- First-Party Property

General Liability Coverage

- To trigger general liability coverage, the insured must be obligated to pay damages flowing from a third party's "bodily injury" or "property damage" caused by an "occurrence."
- Coverage is only available where the damages are fortuitous.

Triggers of Coverage

- 4 Triggers may apply when the injury or damage involves a long latency period:
 - Manifestation Trigger
 - Exposure Trigger
 - Injury-in-Fact Trigger
 - Continuous/Triple Trigger

Under Manifestation Trigger

- Dates of exposure to nanoparticles would be irrelevant.
- Coverage is implicated under the policy in effect at the time the injury is discovered, or if discovery is unreasonably delayed, when the damage could have been discovered.

Eagle-Picher Indus. Inc. v. Liberty Mut. Ins. Co., 682 F.2d 12 (1st Cir. 1982)

Coverage action involving injuries allegedly caused by exposure to asbestos

- court held: no injury absent manifestation
- Holding was consistent with medical definition of asbestosis, which required disease to be clinically evident

Under Manifestation Trigger, Cont'd

- Nanoparticles are already in use in clothing, cosmetics and other products, yet their long term health effects are unknown.
- If exposure to nanoparticles results in development of disease similar to exposure to asbestos, insurers of nanotechnology risks could find their policies triggered by lawsuits alleging injury based on years of exposure to nanoparticles where that injury is diagnosable during the policy period.

Under Exposure Trigger

- Only those policies in effect at the time of exposure to nanoparticles would be triggered.
 - *Ins. Co. of N. Am. v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212 (6th Cir. 1980).
 - In an asbestos context, the policies on the risk when the underlying claimant is exposed to the injury-causing substance are triggered because, at the cellular level, injury is occurring upon exposure, even though the injury may not be detectable for years to come. *United States Liab. Ins. Co. v. Selman*, 70 F.3d 684 (1st Cir. 1995).

EXPOSURE TRIGGER

CONT'D ...

- The success of an argument based on the exposure trigger will depend on medical support for the position that injury from nanoparticles occurs upon exposure.
- Medical determinations as to nanoparticle injuries could be years away.

Under Injury-in-Fact Trigger

- Only those policies in effect at the time of the actual injury are triggered.

In re Prudential Lines, Inc., 158 F.3d 65 (2d Cir. 1998); *Zurich Ins. Co. v. Raymark Indus., Inc.*, 514 N.E.2d 150 (Ill. 1987).

Injury-in-Fact Trigger

CONT'D

- For every date that a claimant can prove injury was sustained, policies on the risk on that date are triggered, regardless of when exposure occurred or when the injury first became manifest.

Am. Home Prods. Corp. v. Liberty Mut. Ins. Co.,
565 F. Supp. 1485 (S.D.N.Y. 1983).

Injury-in-Fact Trigger

CONT'D

- Coverage is triggered only under those policies on the risk when identifiable, compensable injuries are discovered.
- Because the existence and nature of nanotechnology related injuries is not yet known, the application of this trigger in the nanotechnology context could raise unique issues.

Injury-in-Fact Trigger

CONT'D

- Significant questions still exist concerning the causal nexus between exposure to nanoparticles and injury at all.
- Significant questions exist concerning the ability to prove the exact point in time each particular injury would have occurred.

Under Continuous/Triple Trigger

- Policies are implicated from the time of initial exposure through manifestation of injury.

– *Stonewall Ins. Co. v. Asbestos Claims Mgmt. Corp.*, 73 F.3d 1178 (2d Cir. 1995).

Lincoln Elec. Co. v. St. Paul Fire & Marine Ins. Co.,
210 F.3d 672 (6th Cir. 2000)

- Court found that under Ohio law, coverage was triggered continuously from exposure through manifestation, diagnosis and death.
 - Claimant alleged bodily injury caused by exposure to welding fumes. Insurer issued policies to claimant's employer over a 51-year period, some were effective at initial exposure, others when the injuries were discovered.
 - Sixth Circuit held that absent explicit guidance from the policy concerning long-term exposure and delayed manifestation, the policy created a rebuttable presumption that all policies in effect at the time of exposure or manifestation are triggered.

Fortuity

- The principle of fortuity ensures that coverage is only available for:
 - Occurrences that have not yet taken place, and for
 - Events that are beyond the control of either party

Fortuity Applies in the Context of:

- Known Loss Doctrine: Bars coverage for acts or losses of which the insured was aware that preceded the procurement of coverage.

*Adams-Arapahoe Joint Sch.
Dist. v. Continental Ins. Co.*, 891
F.2d 772 (10th Cir. 1989)

- (a “loss caused by a preexisting defect is fortuitous so long as neither party knew of the defect or expected the loss); *Ins. Co. of N. Am. v. Historic Cohoes II*, 879 F. Supp. 222 (N.D.N.Y. 1995).

- Loss in Progress Doctrine: Bars coverage for losses that are imminent or in progress when the policy becomes effective.

- *Adams-Arapahoe Joint Sch. Dist. v. Continental Ins. Co.*, 891 F.2d 772 (10th Cir. 1989).

- Example: An insured who procures a flood insurance policy after floodwater poses an immediate threat to his home.

Nanotechnology Injuries May Not be Fortuitous:

- Current science supports the argument that the nanotechnology industry knows of its potential risks:
 - Current studies indicate that nanoparticle exposure causes lung and heart disease in rats, and brain damage in fish.

- Therefore, subsequent nanotechnology related losses may not be fortuitous.

Possible Exclusions Under Current Standard Policy Language:

- Pollution Exclusion
- Products-Completed Operations Hazard Exclusion

Pollution Exclusion

- Pollutants:

Defined in policies as: "any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste."

- Policyholders often argue this exclusion only applies to traditional pollutants

Exclusion's Applicability to Non-Traditional Pollutants

- Pollutants have come to include:
 - **Fatty acid** used in sand washing process, *Nugent Sand Co. v. Century Indem. Co.*, No. 1:05-CV-599, 2006 WL 3469612 (W.D. Mich. Nov. 16, 2006).

Pollutant has come to include:

- **Carbon monoxide**, *Auto-Owners Ins. Co. v. Reed*, 649 S.E.2d 843 (Ga. App. July 16, 2007)

("There is no dispute that carbon monoxide is a fume and gaseous irritant or contaminant. Therefore, it falls clearly within the policy exclusion.").

Pollutant has come to include:

- **Aircraft fuel**, *Bosserman Aviation Equip., Inc. v. U.S. Liability Ins. Co.*, No. 5-09-05, 2009 WL 1526327 (Oh. Ct. App. June 1, 2009)

("it is clear that aircraft fuel would fall within the traditional definition of a pollutant for purposes of this exclusion").

Pollutants include:

- **Sealant fumes**, *Quadrant Corp. v. Am. States Ins. Co.*, 110 P.3d 733 (Wa. 2005) (tenant's injuries resulting from waterproofing sealant fumes entering her apartment from neighboring building were excluded because the waterproofing material polluted her air while it was being used as intended).
- **Raw sewage**, *United States Fire Ins. Co. v. Warren*, 176 F. Supp. 2d 728 (E.D. Mich. 2001).
- **Solvents**, *Atlantic Ave. Assocs. v. Central Solutions, Inc.*, 24 P.3d 188 (Kan. Ct. App. 2001).
- **Lead paint**, *Hale v. Am. Family Mut. Ins. Co.*, 639 N.W.2d 802 (Wis. 2001).

However, in other courts:

A pollutant does not include:

- **Explosion caused by ignition of vapor or fumes released from waste materials**, *United Nat'l Ins. Co. v. Int'l Petroleum & Exploration*, No. 2:04-CV-00631 BSJ, 2007 WL 45614600 (D. Utah Dec. 20, 2007)

(stating that because exclusion was ambiguous, interpreted to exclude only traditional environmental pollution).

In other Courts

Pollutant does not include:

- **Raw sewage**, *Camp Del. V. Markel Ins. Co.*, No. CV990080225S (Conn. Super. Ct. May 4, 2001).
- **Carbon monoxide**, *Andersen v. Highland House Co.*, 75 N.E.2d 329 (Ohio 2001)
- **Lead paint**, *Lititz Mut. Ins. Co. v. Steely*, 785 A.2d 975 (Pa. 2001).

Are nanoparticles pollutants?

- Nanoparticles could be viewed as non-traditional pollutants because their impact is largely unknown and the technology exploiting them is so new.
- Or, nanoparticles could be viewed as traditional pollutants if nanotechnology related by-products are unintentionally released in a manner similar to traditional pollutants.

Was a Pollutant Released?

- If nanoparticles are pollutants, for the exclusion to apply, there must be an “actual, alleged or threatened discharge, dispersal . . . [or] release” of the pollutant.
- Courts interpreting this language tend to focus on whether the discharge, dispersal or release was indoors or out.

Again, courts are split:

Some courts hold that the pollution exclusion only applies to traditional industrial pollution entering outdoor air, water and land.

Island Assocs. v. Eric Group, Inc.,
894 F. Supp. 200 (W.D. Pa. 1995)

(holding that exclusion not intended to apply to injuries caused by toxic substances that are still confined within the area of their intended use).

Bosserman Aviation Equip., Inc. v. U.S. Liability Ins. Co., No. 5-09-05, 2009 WL 1526327 (Oh. Ct. App. June 1, 2009)

- (because plaintiff's exposure to pollutant was within the normal course of his job duties in his workplace, the exposure was outside the reasonable expectation of the exclusion and was not the result of "discharge, dispersal, seepage, migration, release or escape").

Other courts hold that pollution exclusion applies to indoor air contamination

– *Peace ex rel. Lerner v. Northwestern Nat'l Ins. Co.*, 596 N.W.2d 429 (Wis. 1999)

(holding that pollution exclusion applied to release of paint in insured's apartment).

Assicurazioni General v. Neil,
160 F.3d 997 (4th Cir. 1998)

(pollution exclusion barred coverage for claim of carbon monoxide poisoning suffered by guest at insured's hotel).

*Firemen's Ins. Co. of Washington, D.C.
v. Kline & Son Cement Repair, Inc.,*
474 F. Supp. 2d 779 (E.D. Va. 2007)

(pollution exclusion applied to epoxy dispersal into office air even though release was not traditional environmental pollution).

Nanoparticles May be Discharged, Dispersed or Released:

Example:

Iron nanoparticles are currently used in nanoremediation to remove toxic materials from contaminated water; however, there is no way of knowing if these nanoparticles can be removed from the water in the future.

Nanoparticles May Not be Discharged, Dispersed or Released

Currently, the potential health risks associated with nanoparticles are directed at nanotechnology workers subjected to long term indoor exposure to nanoparticles in the workplace, similar to the asbestos cases.

Will Nanotechnology be Excluded by Pollution Exclusion?

- Because there is no universal interpretation of the pollution exclusion as applied to non-traditional pollutants, or as applied to indoors vs. outdoors discharge, dispersal or release
- The exclusion's applicability to nanotechnology related injuries and damages is impossible to predict in any general sense.

Products Completed Operations Hazard Exclusion (PHE)

- General liability policies typically provide coverage for product-related liabilities as defined by the products-completed operations hazard.
- Insurers can exclude coverage for all claims arising out of the insured's work or product, occurring away from the insured's premises and resulting in bodily injury or property damage as defined in the policy.

PHE May Already Shield Insurers from Liability for Nanotechnology

Most courts interpret the products completed operations hazard exclusion to be unambiguous and construe the definition broadly to apply to all product-related claims, regardless of the underlying theory of recovery.

***Northern Assurance Co. v. EDP
Floors, Inc.***, 533 A.2d 682, 689 (Md. 1987)

(holding exclusion applies irrespective of theory of liability by which plaintiff seeks redress for his injury).

*Brazas Sporting Arms Ins. Co. v.
Am. Empire Lines Ins.*, 220 F.3d 1
(1st Cir. 2000)

- (exclusion by its plain meaning applies to all product-related injuries)

Professional Liability Coverage

- Covers claims arising from the policyholder's conduct in the course of providing professional services.
 - Examples:
 - Errors and Omissions Coverage
 - Legal Malpractice Coverage
 - Directors and Officers Coverage

- Issues with Professional Liability coverage:

- Whether the claim results from rendering “professional services” and whether the “dishonesty exclusion” applies.

Professional Services

- Generally understood to be limited to those activities undertaken as necessary to the practice of one's profession.

- Policies targeted at a particular profession limit the scope of covered professional services – relying on definitions unique to that particular profession.

- Insurers may preclude coverage for nanotechnology claims under the professional services provisions.

- Example: A claim alleging fraud against a policyholder, because injuries resulting from fraudulent activities should not qualify as injuries resulting from the rendering of “professional services.”

Insurers may be able to show that certain activities undertaken by insureds in nanotechnology-related industries do not qualify as "professional services."

Horizon West Inc. v. St. Paul Fire & Marine Ins. Co., 45 Fed. Appx. 752 (9th Cir. 2002),

Policyholder sought coverage for a claim made against it for submitting fraudulent bills.

- Court found no coverage because the injury resulted from fraud committed by the insured, thus did not result from activities that qualified as “professional services.”

Medical Records Assocs. Inc. v. Am. Empire Surplus Lines Ins. Co., 142 F.3d 512 (1st Cir. 1998),

- Insured was in the business of providing medical records but was sued for overcharging for copies of those records.
 - The insurer successfully argued that billing did not fall within the scope of professional services covered under the policy – providing medical records – thus there was no coverage.

Dishonesty Exclusions

Generally provide that there is no coverage for claims shown in fact to be based on, arising out of or resulting from knowingly wrongful or criminal acts, including claims that the insured gained any advantage to which the insured was not legally entitled.

DISHONESTY EXCLUSIONS

CONT'D

The provision is often limited, however, because many policies provide that the exclusion applies only when dishonesty is established "in fact," generally by a final adjudication.

DISHONESTY EXCLUSIONS

CONT'D

Professional liability insurers have successfully relied on this exclusion even where the purportedly dishonest conduct has not been established “in fact” through final adjudication.

Steadfast Ins. Co. v. Stroock & Stroock & Lavan LLP, No. 03-7670, 2004 WL 1759133, *1 (2d Cir. Aug. 5, 2004),

- Court held that because claims against the policyholder sounded only in fraud, there was no possibility of coverage under the policy and no need for final adjudication of dishonesty, thus the exclusion applied.

*TIG Specialty Ins. Co. v.
Pinkmonkey.com Inc.*, 375 F.3d
365 (5th Cir. 2004),

Investors sued insured for securities fraud, alleging that officers of the company sold securities by misrepresenting the profitability of the investment and stating that it was a good risk.

- Court applied the Directors and Officers policy's personal-profit exclusion to bar coverage because the securities fraud claim arose out of the insured's illegal business gains.

The Securities Class Actions Against Nanophase Technologies:

- Nanophase Technologies manufactures nanocrystalline technology used in a variety of products.
 - Nanophase invested large sums in its research and development efforts, and stock prices rose when it forecast profits based on the sales of a new nanotechnology product.

- The promised profits never materialized, and Nanophase's stock prices fell.
- Shareholders subsequently filed multiple lawsuits, several of which resulted in settlements paid for by Nanophase's professional liability insurers.
- In this case, the dishonesty and personal-profit exclusions did not prevent the insurer from funding the settlements.

First Party Property Coverage

- Insures against certain risks of “direct physical loss of or damage to covered property.”

- Whether nanotechnology has caused “direct physical loss of or damage to covered property” will be an important issue because the effects of nanotechnology are largely unknown.

- Claims involving nanotechnology may not involve “direct physical loss of or damage to covered property”
 - Such as where the loss or damage is merely imminent or perceived and there is no proof of actual physical loss or damage.

- However, in the mold context, courts have held coverage is available where loss or damage is imminent.

Doheny West Homeowner's Ass'n v. Am. Guar. & Liab. Ins. Co., 70 Cal. Rptr. 2d 260 (Cal. Ct. App., 2d Dist. 1997).

- Proof of injury may be difficult to establish.

- Some policies that equate loss of use of property with direct physical loss require that the property becomes so impaired that it is uninhabitable.

Western Fire Ins. Co. v. First Presbyterian Church, 437 P.2d 52 (Colo. 1968).

- Nanotechnology claims that involve “direct physical loss of or damage to covered property” may be precluded by faulty workmanship and design defects exclusions where the loss or damage results from the design or specifications of the nanotechnology related wares.
- The error in design exclusion generally operates to bar coverage for loss resulting from the faulty design of property.
- Courts have applied this and similar exclusions to bar coverage in circumstances similar to possible nanotechnology claims.

GTE Corp. v. Allendale Mut. Ins. Co.

372 F.3d 598 (3d Cir. 2004),

- policyholder sought coverage under all-risks property policies for costs incurred in remediating computer systems to avoid Y2K problems.
 - Insurer argued that remediation was necessitated by faulty design thus the “faulty workmanship or design” exclusion precluded coverage.
 - Court agreed with insurer, finding that efforts undertaken to correct a problem with the design or specification of the system, regardless of whether the design complied with industry standards, was within the scope of the exclusion.

- The complexity of nanotechnology-related designs may result in design deficiencies resulting in incidents of property damage resulting from inoperative nanoparticles or even nanoparticles that work but in a way not intended by the designer or user.
 - These claims should, in accordance with *GTE Corp.*, fall squarely within the faulty-workmanship or design exclusion precluding coverage.

Conclusion

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