United States Environmental Protection Agency
Environmental Financial Advisory Board

Captive Insurance as a Financial Assurance Tool

Workshop Summary

June 27, 2006
New York, New York

Environmental Financial Advisory Board Workshop

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Environmental Financial Advisory Board (EFAB)

Workshop on Captive Insurance as a Financial Assurance Tool

June 27, 2006

[***Brackets indicate queries***], *{Writer's notes}*

Workshop Summary

*EFAB Workshop Members Present***:**

- Terry Agriss, Vice-President of Energy Management, Consolidated Edison Company of New York, Inc.
- Mr. A. James Barnes, Professor for the School of Public and Environmental Affairs, Indiana State University
- Michael Curley, Executive Director, International Center for Environmental Finance
- Rachel E. Deming, Associate General Counsel for Environment, Health, and Safety, CIBA Specialty Chemicals Corporation
- Mary T. Francoeur, Financial Guaranty Insurance Company and Co-Chair of Financial Assurance Workgroup
- Cherie Collier Rice, Vice-President for Finance and Treasurer, Waste Management, Inc.
- Dr. Jim J. Tozzi, Director, Multinational Business Services, Inc.
- Justin P. Wilson, Attorney, Waller Landsden Dortch and Davis, Nashville. Tennessee

EPA/OCEM, NACEPT Staff and Management

- A. Stanley Meiburg, EFAB Designated Federal Official (DFO) and Deputy Regional Administrator, USEPA Region IV
- Vanessa Bowie, Director, Environmental Finance Staff

Tuesday, June 27, 2006 *(9:00 a.m.)*

Welcome and Introductions

*Stan Meiburg, EFAB Designated Federal Official (DFO) and Deputy Regional Administrator, USEPA Region IV***,** welcomed members, speakers, and guests to the *Workshop on Captive Insurance as a Financial Assurance Tool.* The workshop was part of a continuing series of work that EFAB (the Board) has undertaken in response to a charge from EPA to look at financial assurance in general and captive insurance in particular.

DFO Meiburg stated the Board members' packets included an overview of the workshop, a series of questions about captive insurance, and a discussion of captive insurance. Various view points would be presented at the workshop. The Board would then use this information to

provide advice to the agency on captive insurance as a tool in providing financial assurance, its benefits and risks, and potential pitfalls. The meeting was open to the public and the meeting would be recorded.

DFO Meiburg thanked *Ms. Terry Agriss, Vice President, Energy Management for ConEdison,* who provided the facilities for the workshop. He introduced the Board members present and noted that bios of board members are in packet. He then introduced *Kathleen C. Callahan, Deputy Regional Administrator, USEPA Region II* in New York, who welcomed the Board to New York. *Ms. Callahan* stated that financial assurance is a critical instrument for EPA. She appreciated the Board's advice on evaluating and protecting the investment that is made in industry to assure that companies can have the necessary financial backup.

Mr. Meiberg asked for comments from *Terry Agriss*, and *Mary Francoeur* and *James Barnes* as Co-Chairs of the Financial Assurance Workgroup. *Terry Agriss* welcomed everyone to New York and to ConEdison, which has a very active environmental health and safety program. *Ms. Agriss* welcomed as a guest, *Sherry Payne*, Director of Remediation Program for Environmental Health and Safety Organization for ConEdison who wanted to learn about EFAB. She thanked the members for their participation and the panelists for their expertise.

Mary Francoeur, EFAB Financial Assurance Workgroup Co-Chair, and *Director, Financial Guaranty Insurance Company*, noted that over past year and a half the Board has been looking at the use of a financial test for meeting financial assurance requirements. The Board is looking forward to a review of the different mechanisms for obligated parties to meet their financial assurance requirements. She appreciated efforts of *Cherie Rice, Treasurer and Vice President of Finance for Waste Management, Inc.* in taking the lead to bring about this workshop, which is the next step in the process.

EPA Financial Assurance Overview

DFO Meiburg introduced *Robert Hall, Director, Permits and State Programs Division, Office of Solid Waste and Emergency Response, USEPA*, and *Susan E. Bromm, Director, Office of Site Remediation Enforcement, Office of Enforcement and Compliance Assurance, USEPA* who would provide a brief overview of EPA's Financial Assurance. *Mr. Hall* has been with EPA for 19 years. *Susan Bromm* is responsible for facilitating and evaluating the enforcement of EPA's national hazardous waste cleanup programs. Both offices are supportive of EFAB's work on issues of financial assurance.

Robert Hall thanked the EFAB workgroup and staff for the meeting preparations. Captive insurance (CI) is used for several hundred million dollars of financial assurance in the municipal solid waste field, but less frequently in the hazardous waste arena. He recognizes that potential changes, such as the implementation of 10-47, could affect the desire of companies to utilize financial assurance for their hazardous waste obligations. Captive insurance is very important to the states. The topic has been raised with EPA by the Inspector General and the Governmental Accountability Office (GAO). His office is pleased that the workgroup completed recommendations on the financial test and has now moved onto captive insurance and its role as a form of self-insurance. These discussions should provide EPA with the issues about the regulation of captive insurers (captives), why companies use them, and some of their concerns.

EPA is working with the states to upgrade financial implementation, training, guidance, and enforcement, and is reviewing the need for changes to the regulations. EFAB's views on captive insurance will inform and benefit EPA's work.

Susan Bromm said she had gained knowledge from EFAB at a meeting two years ago, because the Office of Enforcement and Compliance Assistance was deciding whether to make financial assurance one of their national enforcement priorities. Today's workshop experts will bring more valuable information on the issues of captive insurance. Several EPA folks were in attendance at this workshop, including Region II staff and EPA headquarters experts on financial assurance, which is a testament how useful EFAB's information is to EPA.

Ms. Bromm explained that she works on the enforcement side of EPA by enforcing RCRA corrective action. Financial assurance is an important component in corrective action and clean-up and is part of the enforcement initiative. There are no specific regulations to guide financial assurance for RCRA and Superfund clean-ups. EPA relies on regulations for closure and post-closure as guidance. Financial assurance is placed in some other mechanism like a permit or administrative order or a consent degree, so EPA can negotiate on a case by case basis and a tool can be selected that fits the situation.

Ms. Bromm noted that captive insurance is one of the more controversial aspects of financial assurance. EPA is getting outside scrutiny from GAO. GAO testified to the Senate Environment and Public Works Committee on financial assurance on June 15, 2006. In March of 2001, the Office of the Inspector General for EPA issued an audit report that raised the question of whether the use of captive insurance meets the regulatory requirements for closure and post-closure financial assurance. The OIG report expressed the view that captive insurance does not create independence between facility failure and failure of the mechanism. OIG wanted to assure the assignability of CI to comport with regulations. Some states do not allow use of CI because they fear that it has a higher risk and is difficult to monitor.

Ms. Bromm described EPA-identified issues that EFAB should consider when looking at captive insurance and general insurance, as follows:

1. What are the strengths and pitfalls of insurance?
2. Should there be a minimal rating of insurers that provide financial assurance?
3. Should there be minimal capitalization requirements for insurers who provide policies for financial assurance? And if so,
4. What requirements would best assure that funds are available for the protection of the environment, including closure and post-closure corrective action and other clean-up?
5. Should policies written by captive and commercial insurers be treated as equally acceptable?
6. Should the language of policies written by captive insurers differ in any way from those written by commercial insurers?

DFO Meiberg described EFAB as a board of experts who can bring to EPA advice on environmental financial issues. EFAB is not an arm of the OIG. He introduced the first panel members who would speak on captive insurers' regulation and requirements.

Panel 1: How are captives regulated and evaluated? How do the requirements for captive insurers compare to other insurers?

Derick A. White, Director of Captive Insurance, Vermont Department of Banking Insurance, Securities, and Health Care Administration, is responsible for the administration and regulation of captive insurance companies and risk retention groups. *Mr. White* used a series of slides to discuss: What is a Captive?; Why Form a Captive?; Vermont's captive industry profile; businesses that use captive insurers; review applications; reporting requirements; examinations; and closure/post-closure aspects. Vermont passed legislation on captive insurance 25 years ago. Over 26 states have captive insurance laws, many based on Vermont's laws.

A captive insurance company is a formalized insurance company, licensed in states and with regulatory oversight. There are two types: pure captives and group captives of many varieties. Captives can only insure the risk of its owners. That is what separates a captive from a traditional company. Most of the captives writing closure and post-closure insurance are single parent companies. Captives are more micro-regulated than traditional insurance companies. Traditional insurance include different kinds, such as life, health, fraternal benefits, etc. They have a $2-5 million capital base and can write any limits as long as they follow certain ratios.

Captive insurers are different, they file a business plan. For example, a company writes a plan for general liability for the first ½ million dollars per occurrence and $2 million total. They prepare an actuarial study including losses and extra capital, and then write a policy with parent company. If they want to change the plan, because of higher profits or lower losses, and want to raise minimum from $500,000 to $1 million, they need the states permission. Permission is also needed if they want to bring it down or pay a dividend.

The main reasons a company would want to form a captive insurance company, include:

1. Traditional industry does not meet its needs. Some traditional companies failed due to legal trials and some doctors could not get coverage, so they decided to self-insure through a formalized mechanism, such as a captive.
2. Companies had problems with closure and post-closure, because traditional companies wanted an insurance premium and a collateral equal to 100% of their possible obligation when land-fill was closed in 30 years.

Large companies approached the state and asked to establish captive insurance companies. The state decided that if the company was large and secure they could capitalize with about 1/3 of the bonds outstanding and were allowed to write surety bonds. Ten captives are writing closure and post-closure insurance in Vermont. Only one other state has a captive insurer doing this. Most companies writing closure/post-closure are manufacturers writing for their own sites. There are a small number for landfills. There are 763 licensed captive insurance companies in Vermont. To summarize the size of the captive insurance industry, Vermont alone has over half of those in the U.S., and there are some in other countries - maybe 4-5000 total captive insurers world-wide.

Vermont has been licensing captives for 25 years and they have 26 people full-time, captive industry employees. Vermont is third in the world in the number of captives and second in terms of premium volume. Companies are required to have books and records that are prepared by someone who knows insurance standards, the state regulations, and is a Vermont-approved management firm.

Forty-two of the top Fortune 500 companies have captive insurance companies in Vermont, so it is no longer the alternative insurance industry. Nineteen of the 30 Dow Jones companies in many different industries have captives. *Mr. White* noted that on the EFAB, there are nine members who are affiliated with companies who have a captive insurer in Vermont.

Regulation starts with an application based on an actuarial study, which is based on the past history of company and industry data to determine what they will need to pay for losses over the next 5 years. A premium is then determined based on the estimated capital needed. Bio affidavits are run through National Association of Insurance Commissioners database to ensure legitimacy. *Mr. White* reviews all the applications, about 500 so far, and they are also sent out to approved actuaries to review. After this review, focused on an actuarial study, he compares the application to a checklist to see if they comply with state statutes. Applications are reviewed by the Deputy Commissioner and the Commissioner.

Captives are micromanaged more than traditional companies. The Vermont annual report for pure captives is different than for big traditional insurance companies. Captives are required to have a CPA audit every year. The state approves the individual CPA that does the audit. Captives have to file a certification of loss reserves by an approved individual actuary. Statutes require investigations every 3 years to see if they are complying with state's laws and if they are using approved re-insurers.

Generally, closure/post-closure uses capital ratios of 3 to 1. If it is a strong company then it is allowed to capitalize equal to 1/3 of bonds outstanding. Forming a company with a minimum $250,000 capital (the regulatory minimum requirement), usually does not work. Letters of Credit (LOC) have to come from an approved bank and be in line with the state's specific LOC form and be on file with the state treasurer. If the LOCs need to be called, the state presents the draft to the bank and money is wired to the state's account.

Lastly, assignability is touchy issue. A captive can only write the risk of its parent, so if the parent sells the landfill, the captive could not write the new owner. But if the state requires the seller to maintain coverage until the buyer is covered, then it is the risk of the seller. This is allowed.

Gale Guerra, Financial Analyst, A.M. Best Company, has the responsibility of rating the financial strength of captive insurance companies in the Alternative Risk Transfer Group. She analyzes captive insurers everyday and knows what to look for in applications. *Ms. Guerra* discussed the reasons for obtaining an A.M. best rating, rating requirements, and rating evaluations. A.M. Best rates both traditional and non-traditional insurance companies, of which captives are one type. Captives differ and are unique, but the same analytic tools are used for both types of insurance companies.

Obtaining an A.M. Best rating is desirable because the business and financial environment is constantly changing and captives need to react to the demands for transparency and accountability. Organizations need a consistent means to assess captives to see if they are financially viable or not. The ratings are important because it validates the financial strength of the company and satisfies regulatory requirements. For example, some municipalities may require a financial strength rating before issuing ordinances. Federal housing agencies might require an assessment of financial strength before they approve a HUD grant.

Other reasons are to enhance access to re-insurance, to help maintain members or to expand members, and to offer benchmarking standards to show how a captive compares with others and to industry as a whole. A risk manager has more control if the captive has an A.M. Best rating and the risk is good one. A Best rating helps to mitigate the credit risk of fronting.

A.M. Best's rating requirements include a minimum of $2 million in capital and surplus and 3-5 years of operating experience. If a shorter period of time, then they require 4-7 years of pro formas. The captive must be a risk-bearing entity; if not, then A.M. Best cannot rate them. The range of A.M. Best rating scale is from A++, which is superior to F meaning in liquidation. There are two categories: 1) a secure financial rating from A++ to B+ and then vulnerable which is below B+.

If this is an initial rating, A.M. Best wants to see past, present, and future components. Three components are balance sheet strength, profitability, and market profile. A.M. Best compares them with peers and the traditional insurance market which helps to maintain consistency across the board for all types of insurance companies.

Henry K. Witmer, Assistant Vice President, A.M. Best Company, directs the analysis and assignment of ratings by a team of professional analysts who evaluate the strength of property casualty insurance companies. He has a long-term background in the insurance industry. *Mr. Witmer* discussed quantitative and qualitative evaluation, market profile, and comparisons between captive and traditional companies. Best's Capital Adequacy Ratio (BCAR) model is used to look at a balance sheet. The model is a risk-based capital analysis by which four key areas are evaluated:

1. Asset risks of the captive and types of assets like bonds, stocks or equities to see if the company can balance the risk components against the capital base.
2. Credit risk exposure, such as funds owed to the captive and reinsurance recoverables. If they are too reliant on that, then they may be too dependent on reinsurance.
3. Loss reserves are evaluated by actuarial analyses for retained losses, not just the reinsurance component or the credit component.
4. The premium risk component is based on risk written and retained by captive and received premiums, and if inadequate then they risk-charge the net premiums written by the captive. Insurance companies use the same type of model.

When they obtain the bottom line figure of the companies for required capital, it is compared to actual capital and they get a score of the capital strength. Capital structure is reviewed, such as the components of LOCs, cash, preferred shares, etc., as each one represents a different risk component. Leverage and capitalization includes premium leverage, lost insurance leverage, and equity leverage from stocks to see how much equity exposure there is. The quality and appropriateness of the reinsurance program includes who they are, their financial strength, and how dependent the captive is on the reinsurers. The quality and diversification of assets includes having a lot of assets in one type of component or diversification across types of assets. Profitability is good because it will generate increases in the capital base, so they can increase limits or diversify type of exposures.

Qualitative Evaluations consist of the following:

- Quality and stability of management is assessed by interviews to determine what are their risk management programs and future.
- Market profile includes the operating strategy and business plans, the market strategy and competitive environment, and whether it is really serving the needs of the parent company.
- Whether their product is in a geographic concentration or is diversified across the product-line or country.
- Risk factors from off-shore exposures from the regulatory aspect or political risk.

Under the Market Profile, pressure and support from owners and domicile are important aspects, as follows:

- Are the owners there to ensure the financial strength of the captive insurer? If the captive has financial problems, can they get additional funding from the parent company or are they on their own?
- Can they charge appropriate rates or is the owner going to say that the charges must be like the local market even if it is inadequate to cover the risks?
- Is the owner committed to the long-term viability of the captive insurer?
- What is the value added from risk management and loss control programs offered or mandated? and
- Is there domiciliary oversight, laws and regulations?

To compare captives vs. traditional insurance companies, A.M. Best looks at financial flexibility, domicile, parent company strength and expertise in its niche market, diversification of product line and whether this is beneficial or harmful to the captive program. Some captives have gone into lines of business that they should not have and damaged their financial strength. Changes in business are also assessed from the point of view of risk. Financial modeling is the same for all insurance companies. Stress testing includes risks, such as hurricanes, and lawsuits on liability writers.

The process includes meeting with the company management to review the financials and the qualitative aspects. Both the initial rating and the updates will go to a rating committee. Issues are assessed as they arise during the year. A rating committee looks at all rating decisions. The Rating Committee has members from Alternative Risk Transfer (ART) team and all the managers from other areas, such as property casualty writers or liability writers or commercial and personal lines writers. So feedback is obtained from all across the spectrum across all companies. All ratings carry the same implications for financial strength regardless of the type of company.

Questions and Comments

Jim Tozzi, Ph.D. (not specifically identified), asked *Mr. White w*hat portion of people doing business in this country, and how many are regulated by off-shore companies in other countries. *Mr. White* said there are about 4-5000 captives and about 1000 are regulated in the U.S. Some companies are regulated off-shore. Bermuda regulates 1000 or so, and the Cayman Islands regulate about 700. Captives are regulated differently off-shore than in the U.S. The Bermuda and Cayman Islands regulators have been around a long-time and do a good job, but some jurisdictions are not as stringent.

Ms. Terry Agriss asked: From the rating agency perspective, do you look at who the regulator is as part of the analysis? *Mr. Witmer* responded that it is reviewed, but not scored. He has a lot of confidence in Vermont, but different types of companies are domiciled off-shore. Some write U.S. business and will submit to regulatory aspects. Some have to obtain a front in the U.S. to do business in the U.S. and then they re-insure the front. So the regulated entity would write the insurance on U.S. paper and the risks would be ceded off-shore, but the front is still responsible for paying the policy holder.

Ms. Agriss asked if A.M. Best uses a higher standard for financial strength for a captive, because of close relationship between the parent and the captive. *Mr. Witmer* responded that there is a two-step process with captives. Financial flexibility is critical in terms of the availability of additional capital, if it is needed. The captive insurer is looked at by itself first and then they look at the parent company to see how captive is treated and the relationship or the degree of dependency. The willingness of the parent company to provide additional capital should the captive run into trouble is important. They meet with parent management representatives to determine the level of support and if there is an explicit agreement to provide support, whether it is verbal or written, or if the captive is on its own. These scenarios are incorporated into the rating.

Mr. Michael Curley stated that EFAB's charge relates to closure, post-closure, and corrective action or remediation. The workgroup has worked under the assumption that closure and post-closure are estimative costs, but corrective action is unknown, so it is hard to estimate costs. There are two types of costs, one is known, such as a $10 million closure and post-closure cost in 10 years, and then there is the corrective action cost. Your rule of thumb is for the capitalization to be a third of the liability. This would be difficult as opposed to a facility that might be closed in 2008. How do you deal with the corrective action side which is unknown?

One responder thought that the amount of bond or insurance policy that is posted for the state includes both the known and unknown. *Mr. Rodney Taylor* thought this does not cover the unknown, which could be covered by a pollution liability policy for unknown costs in the event of a release from a facility. The component is not included in the assets which are covered by bonds or insurance policies that calculate expected costs and discount them for net present value.

Mr. Curly added that it is very important to know if only closure and post-closure costs are covered for which bonds are required. For example, the state of Nebraska says you must have $10 million or $200,000 on hand when your facility closes in 2008. He assumed that Vermont addresses this problem on a present-value basis. *Mr. White* answered we do require the 3 to 1 ratio and then re-evaluate the parent company. If it is strong then we might go to 4 to 1; if it is weaker, then 2 to 1 or less. *Mr. Curly* asked: Even if you have a closure in 2025? *Mr. White* said they have looked at time of closure, but have not adjusted the ratios for time of closure.

Mr. Curly asked if letters of credit for a company to meet the capitalization requirement are renewable. *Mr. White* answered that LOCs are automatically rolled over unless the bank says they will cancel within 90 days. *Mr. Curly* asked if the bank will not reissue, does the state reassess the company. *Mr. White* said that they if get a letter from the bank, they hope that the company has alternative financing options or will put in cash. They tell the bank if you don't renew it we will call in the LOC and they will usually renew it, which has happened twice. *Mr.*

Curley added that if it is the regulator's business and they assess it on a daily basis and the bank is required to let them know if they are not going to renew it, that is a saner approach.

Mr. Curly: When either the State of Vermont or the rating agency examines a captive insurer, do they look at the financial assurance of the parent company? *Mr. White* said they focus on the captive, but if the parent company has shown responsibility in the past he would note this, if the capital surplus is not quite adequate. If the parent company will cover the risk, then the captive would receive a more positive assessment. *Mr. Witmer* stated that they look primarily at the capital of the insurer, but if there is strength in the parent company, then the captive would get a higher rating. If the parent is in a stressed condition, this would lower the rating.

Ms. Rachel E. Deming: In terms of the onshore/off-shore companies is there any reason to differentiate between the liabilities of each one? *Mr. Witmer* said they would look at the financial strength and operating performance of the captive insurer on an historical basis and work with the captive's managers. The review of program financial strength and flexibility to assess members is the same as whether it is off-shore or on-shore.

Ms. Deming asked *Mr. Witmer* to explain his use of the term "front" and its relevance to this discussion. *Mr. Witmer* answered that for workmen's compensation and auto liability insurance, the company needs to be licensed in each state. If a captive does not have license in a state, then it will need someone to front that operation. If the company has a big operation in one state, but does not have a license to write that line of business and yet has a mandate from its company to write that type of insurance, then it will seek a fronting company that is licensed in the state. This is usually a traditional insurance company, who will issue its paper and cede the business to the captive. The captive would receive the premiums and would pay a fee to the fronting company for the costs involved and capital costs to write that risk should a claim occur. The insurance company gets funds from captive and then pays the claim.

Mr. White explained that this is not like money-laundering, but is the use of an insurance company that is licensed and regulated by the state to do the business in the state that is needed. The captive pays the claim.

Mary T. Francoeur asked *Derick White* if the 10 companies that are writing captives were writing broader insurance policies. Yes, they are, stated *Mr. White*. *Ms. Francoeur* asked *Henry Witmer and Gail Guerra* about the scope of the ratings and the range of ratings of captive companies and the distinctions between a secure and a vulnerable rating. *Ms. Guerra* said the range is from A++ to F. None are A++, most are A+ to B+; some have B ratings, but they may only be vulnerable for a year or two. *Mr. Witmer* said a B rating is not on verge of going bankrupt, but could be a lower investment rating.

Mr. Justin P. Wilson asked if it required 3 to 5 years of experience to be rated by A.M. Best. *Mr. Witmer* said that is true, but there are exceptions if they have an actuarily sound business plan or a good management system.

Mr. Wilson: How do you determine the fees? *Mr. Witmer* said that to avoid conflicts of interest as analysts, we don't get involved in the fees. *Mr. Wilson* asked how to determine if the cost to the industry for ratings is based on assets. *Mr. Witmer* said it was based on premium volume and capitalization. *Mr. Wilson* asked if there are other companies that do this rating. *Mr. Witmer* said there were other rating agencies.

Ms. Francoeur: Should there be a rating requirement for a captive insurer?
Mr. Witmer: We can't require any company to get a rating, it is voluntary. Some regulatory programs do require a rating. *Mr. White* answered that requiring a rating would help smooth out the variance between state regulators.

Ms. Deming asked if the ratings were any different for captive or general insurance companies. *Mr. Witmer* said it boils down to financial strength. Regular insurance companies are on their own and if they have financial difficulties, they can go out and raise debt; or if it has an assessment mechanism they can get money or go into debt. A captive insurer has similar requirements, but may have a fall-back parent company or group.

Dale?? said he understood that a captive insurer can use some of its capital to loan back to the parent company. How is that dealt with in the ratings and review process for A.M. Best and Vermont? What happens if they need more money and the parent company goes into bankruptcy and there is a loan back from the captive insurer? What is the status in bankruptcy court?

Mr. White responded that they do allow some companies to loan money back to the parent company. They could loan everything back up to $250,000, but it is not likely. Before they could loan anything back, the parent company has to have at least a tangible net worth of $100 million and be above investment grade. If we have an insurance company with investible assets, then we give them a license. We monitor the parent companies and industries and use other rating services. If they slip below investment grade then we ask for some money to be re-paid or stop the loan back and they cannot add to it. We have had less than five pure captives that have gone into rehabilitation before bankruptcy, when the parent company goes into bankruptcy and the state has to take over the captive. The cases are in the state court, not the bankruptcy court. The captives in these cases were kept running and in most cases the parent company did come out of bankruptcy.

DFO Meiburg thanked the first panel and thought it was a useful session. He thanked *Mr. Taylor* for responding when he had the expertise to answer the question. He then asked if they have found a captive that has failed the examination and what followed. *Mr. White* said that on the training exams no one has ever failed, and any problem areas are dealt with. We sometimes look at a specific piece, if there is a problem, and do a limited examination.

DFO Meiburg asked with respect to closure and post-closure have you had a situation where you found a concern and did you notify the state environmental regulatory agency? *Mr. White* said that they did not. Most captive insurers are only licensed in Vermont, and even though the risk is somewhere else, they do business in Vermont. Some are licensed in another state that doesn't have the same standards. *DFO Meiburg* asked if the captive insurer has to get approval from the state in order to loan money back to the parent company. *Mr. White* said they do.

DFO Meiburg asked what percentages of captives have ratings from A.M. Best or another rating company. *Mr. Witmer* answered that A.M. Best rates 250-300 group or single parent captives, so it is less than 10% of the total, but other rating agencies do rate captives, but not as many as A.M. Best and there is some overlap.

DFO Meiburg wondered about looking at the risks of the parent company from the standpoint of rating. *Mr. Witmer* answered that if a parent company has financial problems and the captive

company is still strong, it will actually affect the rating by lowering it. *Ms. Guerra* added that they monitor the parent companies and adverse events may affect the rating of the captive.

Mr. Curly asked if the captive's loan back would be seen as a preference in a bankruptcy case for fleet auto insurance or workmen's compensation. *Mr. White* thought it would not be seen as a preference, but the bankruptcy judge could see the advantage of keeping the captive going so the parent could pay the loan back in cash.

Mr. Curly asked if there is less of a problem where the closure and post closure problems are known and the captive insurer loans money back to the parent and the parent goes into bankruptcy. If the parent company had the responsibility in the first place for a closure as opposed to workmen's compensation, what would happen then? *Mr. White* said he did not know, but the OIG report was interested in the difference between a primary and secondary entity that has to close the landfill. If the judge thinks it is important that the landfill gets closed, then it would be handled like workmen's' compensation. The Board's comments would be helpful on this topic. *Mr. Curley* added that in the bankruptcy law there is no requirement that an inter-corporate loan from a captive to a parent is a preference.

Mr. Witmer said he is not an expert in bankruptcy law, but that policy holders generally take precedence over creditors in terms of payments of claims. *Mr. White* added that in liquidation, the insurance company would give preference to the claimants first, then the general creditors, then the policy holders. The policy holder is the owner. *Mr. White* said, if I take over the insurance company my preference is to pay the claimants, but if all my money is in a loan back with the parent company then it would be an unsecured loan. *Mr. Curley* added that the claimants might have a preference, but the inter-corporate loan might interfere with it.

Panel 2: Why do business with captive insurance? And Why Not?

DFO Meiburg stated that *Marcy Waterfall* was delayed by her flight and would not be present on the panel. He introduced *Linda Martin Barber, Director, Navigant Consulting, Inc.,* who is a senior member of the firm's Insurance and Reinsurance Consulting Practice and has 25 years experience in the insurance and reinsurance industry. The second speaker, *Rodney J. Taylor, Managing Director of Breitstone & Co., Ltd.*, a special consulting firm assisting partners engaged in complex transactions involving a wide variety of industrial, commercial and institutional operations. Both speakers would discuss the reasons for doing or not doing business with captive insurers.

Linda Martin Barber, Director, Navigant Consultings, Inc. said her view were personal and not those of her company. She has worked on insurance and environmental issues for insurers and reinsurers, policyholders, and state departments of insurance and is an independent consultant. *Ms. Barber* gave a brief overview of captives, the benefits of captives, and the OIG report.

Captive insurers were developed 40 years ago. The petroleum industry in Europe was one of the first to form captives which were used as an alternative for risk financing. Today there are about 5000 captives worldwide in 60 domiciles. How you count what is a captive can differ from jurisdiction to jurisdiction. There are 4000 captives in ten domiciles, mostly in Bermuda, the Cayman Islands and Vermont. If you combine the captives domiciled in U.S. states, the U.S. has more captives than any other foreign country. Bermuda has been the base for most captives

because they are permitted to discount their reserves under Bermuda law. Also, less funds are needed in Bermuda for an insurer's capitalization and reserve levels. Vermont is the third largest domicile for captive insurers in the world. Other states such as Hawaii and South Carolina have over 100 captives. Captives are a big business, accounting for $28 billion in annual premiums.

Captives are established by individual companies, risk retention groups, associations, and non-profits, such as hospitals, when the insurance they need to operate is unavailable. Not all forms of captives, such as agency captives, are permitted in every state. Captives also write direct insurance policies, bonds and reinsurance. Captives are subject to fewer regulations than other insurers. Since the states regulate insurers, there are 50 different sets of regulation that insurance companies have to comply with. The total number of Vermont Captive Licenses has grown from one in 1981 to 754 as of December 31, 2005.

Captive insurance is a financial mechanism for companies to manage their risk in a way that permits them to have broader terms and conditions of coverage than standard insurance. Captives provide stabilized insurance costs. Captives flourish when there is a constriction of the insurance market, such as in the 1980's, for some of the risks associated with assuring compliance with RCRA, and other hazardous waste compliance legislation from various states and EPA.

Another benefit of captives includes the ability of companies to realize the investment income on their reserves and utilize it to cover any additional adverse development in their claims. Cash flow is improved and there are a number of tax advantages as premiums are tax deductible. Captives have direct access to reinsurance markets. Large reinsurance entities will do business with individual companies. The closer the liability is tied to an insured, the more responsible the insured will be. If a company can just pay a premium and think they are covered then they are less responsible. If a company is more closely tied to the liabilities, then they would be more responsible.

Ms. Barber next provided her opinions on some inaccuracies in the OIG Report Conclusions

(staff from EPA's OIG, cite the source of the following quotes as from the 2001 OIG report on financial assurance)

OIG Quote 1: *The Financial Strength of the captive is dependent upon the parent corporation.*

There is an initial funding by the parent to capitalize a captive insurer, but thereafter the strength of the captive is dependent upon the adequacy of its reserves, the investment income on the reserves, and the company's reinsurance. The captive's ability to respond to claims has more to do with the management of its business rather than its parent's willingness to fund losses. All insurance companies are required to have adequate loss reserves to cover expected loss development.

In some jurisdictions you can discount reserves to present value. If, for example, you have a bond than doesn't mature for 20 years or have a workers compensation policy that will be making payments over 10 years, then in some foreign countries, you are permitted to put up the present value of the future claims. In the U.S. you have to put up reserves on a non-discounted basis. Companies can use those reserves to invest in certain securities and bonds and earn investment income.

Many commercial insurers, like captive insurers, have parent companies that are not subject to the regulation of insurance departments. The insurance industry is watching those companies that are part of a diversified holding company to see the willingness of the parent to continue to fund an insurance company that has on-going losses. For example, the Tisch family and Loews Corporation have invested millions of dollars in CNA. Commercial insurers as well as captive insurers can be dependent upon a parent company's willingness to fund losses should its book of business become unprofitable.

OIG Quote 2 – *If a parent company experiences financial difficulties there is insufficient assurance that the captive will pay claims.*

First, this statement applies equally to captives and other insurers. Secondly, as long as the insurer manages its business well, the financial condition of its parent has no direct impact on its ability to pay claims. *Ms. Barber* emphasized the difference between the regulations applicable to an insurance company and how regular commercial companies are monitored through financial reporting and certified statements. Insurance regulations are stringent when it comes to the upstreaming of dividends or lending of money from the captive to the parent. Regulatory approval and actuarial certification of reserves by an actuary are required. A captive insurer is smaller, younger, has a more certain book of business, and as a result it is easier to certify its reserves than those of a standard insurance company. Standard insurance companies have long-tail business that can generate losses in unexpected ways, especially when laws create retroactive liability.

For example, Reliance Holdings had substantial debt and was relying on its insurance companies to upstream funds to pay off the debt. When those insurance companies were not profitable and unable to support dividends, Reliance Holdings defaulted on its debt. The holding company was unable to upstream all the funds it needed because of the applicable insurance laws. Unfortunately, Reliance's insurance companies were also unprofitable and without additional funding from the parent, they became insolvent.

There are several examples of parent company bankruptcies where the subsidiary insurers continued to pay claims and maintain their solvent status and financial rating. Conseco is a recent example involving commercial insurers. Texico and its captive, Heddington, is an example of a captive maintaining its separate solvent status despite the bankruptcy filing of its parent. Captive insurers have remained solvent even when their parents have gone into bankruptcy.

OIG Quote 3*: "When captive insurance is used… there is no diversification of risks and no independence…"*

Captive insurers spread the risk to other insurers and reinsurers to mitigate the risk of large losses. Companies use captive insurance to manage their risks. In most instances, companies arrange insurance by having a U.S. commercial insurer issue policies that are then reinsured by the company's captive. The commercial insurers secure the captive's reinsurance obligation by holding letters of credit from the captive. This arrangement provides the company with an insurance policy from a U.S. insurance company, which is often required by contract and/or law. It also permits the insurer to take credit on its balance sheet for the reinsurance receivable from the captive. In addition, the fronting insurer's policy forms are used. With the involvement of a commercial insurer as the policy-issuing carrier, there is independence from the captive as to coverage interpretation and claim handling. In addition, since captives often purchase

reinsurance, reinsurers provide more incentive for the captive to independently respond to claims. Otherwise, reinsurers may fail to reimburse captives for claims that are inappropriately paid to the insurer/policyholder.

Insurance regulations limit a parent's use of captive assets. Directors of insurance companies have to signify their approval, in writing, of dividend payments to the parent company and the director can be held liable if dividends put the insurance company at risk. Now, attorney generals understand insurance terms and they enforce the laws and regulations. There are protections when using a captive insurance company; they are not unlike those of a standard insurance company. When using a captive it permits companies to use alternative ways to finance risks and deal with problems when the standard insurance market is unable to respond to regulations for financial responsibility.

Rodney J. Taylor, Principal, Breitstone & Co., Ltd., spoke from his own experience with waste disposal, hazardous waste, and corrective action facilities. His experience with captives could benefit the understanding of the obligations of owners. He finds solutions for people who are struggling with environmental risk management problems that require insurance. His company has worked with private and municipally-owned landfills, which take responsibility for closure and are subject to financial responsibility, with the largest waste management companies, and with regulators and government entities. Insurance for environmental risks evaporated in the 80's. Assumptions about life and insurance companies' behaviors changes over time.

His company has done business with about 40 companies in which a lender is involved. Banks are smart about requiring environmental insurance. Requirements for insurance are in the redevelopment agreements. For example, with one agreement the bank imposed upon the developer and the contractor requirements for insurance covering closing and capping the landfills, and the unexpected liabilities from constructions or completed operations, and contamination of ground water. Regulators have also become smarter. In some transactions, state regulatory agencies are named as insurers on the policies. Other government entities, such as branches of the military, are involved in clean up of their sites and they get insurance requirements for developers. There are lots of precedents in terms of how policies are structured or captives can be integrated.

Mr. Taylor noted that there were less than ½ of dozen times in which a captive has been involved in solving an environmental risk problem. He described several factors that made the use of captives difficult:

- Environmental liability is not well-suited for captives because they occur infrequently and in large losses. Captives are best at frequent and small losses.
- A lack of reinsurance support for captives that are writing policies for environmental risks as a regular business
- Only a few reinsurers have environmental experts on staff and they rely on the underwriters of the direct-writing environmental insurance companies to be their gatekeepers for environmental reinsurance.
- Reinsurers would rather work with large insurance companies that have proven ability and experienced staff with environmental risks over a long period of time, rather than with a single-entity captive.

- Fronting policies are difficult for captives to obtain for environmental risks, because the general insurance companies take the view that the captive will fail regardless of the assets of the captive or its parent company.

To overcome this reluctance of reinsurers, some kind of standardization would be needed to help them evaluate the captives. Ratings and timely warnings of problems would be helpful. The ratings should consider a consistent view of financial structures, investment strategies, and management of captives that are writing policies for post-closure and closure costs. Some better method for determining known risks in closure and post-closure situations is needed. Estimates of these costs may not be accurate.

If a reinsurer was interested in taking on the known risks, it would involve reinsurers in the underwriting cost-cap business. They would have to decide whether the estimates were adequate and whether the closure plan was adequate and whether there would be changes over time. So even to look at it from a rating organization, and to determine the financial reserve requirements, is really underwriting cost-cap business for the closure of landfills.

Unknown risks have been insured successfully since the mid-70s on separate policies, and there is a good body of knowledge and a good track record. Corrective actions are environmental events that happen where hazardous materials are stored or disposed and when pollutants escape from where they are contained. Unknown risks are easier to reinsure for captive insurers, than known risks where the expertise is limited and the track record is not long and as successful.

Mr. Taylor suggested several factors in evaluating captives' ability to provide insurance for hazardous waste and landfill closures, and corrective actions, as follows:

- The ratings would be the same as for regular insurance companies.
- The limitations are reinsurance support, the expertise of underwriting, and the expertise of evaluating these risks for closure and post-closure care over a long period of time.
- The need to evaluate long-term risks beyond 30 years.
- The ability to pre-fund expected costs to cover the entire operation and post-closure life of a landfill
- Cost-overrun protection many be smaller than the amount of future costs of closure.

Most landfill operators are stretched thin for capital. To provide financial assurance operators use corporate guarantees, bonds, letters of credit, escrow funds, and insurance policies if available. It is hard to imagine a captive insurance company being part of a landfill company that is leveraged to that extent. It would be difficult for a captive to be responsible for the larger landfills.

Breitstone & Co. has found solutions for environment risks. For example, in providing coverage for the postal service when it was cleaning up for anthrax and also insuring to satisfy the requirements of Homeland Security under the Safety Act to encourage technologies to prevent terrorists acts. *Mr. Taylor* would like to see more use of captives. This will have to be done by encouraging insurers to act as reinsurers for captives who want to write closure and post-closure policies for landfills.

Questions and Comments

DFO Meiburg commented that the last two speakers had moved from commenting on captive insurance in general to captive insurance for environmental risks.

*Jim Tozzi [**??**]* questioned *Ms. Barber* about OIG's conclusion in Quote 1. He asked if a parent company experiences financial difficulties, does the assurance that the captive will pay claims depend on the financial strength of the captive? *Ms. Barber* added: "yes, and its reinsurers, and the strength of its reserves." The point is that insurance is heavily regulated for both types and you can't just upstream funds from captives like you can by an operating subsidiary, which is under separate regulations.

Mr. Tozzi stated that when a capital insurer had no diversification of risk and no independence that would mean that the policy holder's protection is from the regulator. *Ms. Barber* agreed and added the independent actuary that certified the adequacy of the reserves. *Mr. Tozzi* thought that this may depend upon the regulator's requirement. *Mr. Barber* responded that it was a standard requirement that you have an actuarial certification. She does not know of any country that would allow an insurance company to operate without actuarial certification of loss reserves.

Mr. Taylor added that there are not a lot of loss reserves if you are only insuring for closure and post-closure, so there is only one risk. It is not the audit or the actuarial study that is important; it is how it is underwritten to begin with. The evaluation is essentially the same as underwriting a cost-cap for closure/post-closure for remediation activity.

Michael Curley asked *Ms. Barber:* When the investment income in a captive company could be used to fund losses, how is it used, because any income is taxable to the captive? *Ms. Barber* responded that as a captive's loss reserves increase, the income on those reserves is available to the captive should there be additional losses, even without further investments from the parent company.

Mr. Curley asked if there was any difference between money in an escrow account, which is taxable, and putting money into a captive? *Ms. Barber* responded that depending upon the nature of the insurance policy or bond, the beneficiary would have a direct claim against that entity as opposed to having to go to the company that created the liability. The company could just take the money in the escrow account depending on the terms of the escrow.

Mr. Curley's asked if reserves in Bermuda could be posted on a present value basis, but it has to be on an undiscounted basis in the U.S. *Mr. White* answered that this statement was not entirely correct. Ten percent of Vermont captives are allowed to discount the loss reserves to present value? *Mr. Curley* then stated that if you had a company that has a guaranteed investment contract from a triple A company that would provide them with a certain cash payout in 2012, when their closure liability is due, then the present value is discounted and that would be accepted? *Mr. White* answered that this would be accepted.

Mr. Curley asked *Mr. Taylor* who are the big environmental insurance companies that write policies on the unknowns in corrective actions. Is it a hard or soft market? *Mr. Taylor* mentioned AIG, Zurich, ACE, EXCEL, and Liberty Mutual. It is a fairly competitive market, but the hard part has been the cost-caps which are more difficult to underwrite. The unknown is competitive. *Mr. Curley* was interested that the unknowns were easier to insure than the known risks. If you are setting aside $100 million to cover closure/post-closure, then buying a cap for the next $100 million is tougher. *Mr. Taylor* agreed, but it would be more prudent to buy the cost-cap than to

put aside what you expect to need for closure. This would be a good combination along with a pollution liability policy and would ensure that the costs do not come back to the public or the facility operator.

Mr. Curley said the workgroup had supposed that company and the state could decide what the closure and post-closure costs, and then a financial assurance mechanism is put in place to pay that cost at the time it is needed. Now it seems if there is a cost overrun you better have other protection. *Mr. Taylor* said this is not true in every case, because some companies could have better estimates. Older landfills are harder to figure the closure costs. Newer landfills are easier because the engineering is more uniform and siting is better.

Mary Francoeur asked about the reinsurance capacity for a captive and what level is appropriate from a rating or a regulatory standpoint? *Mr. Taylor* asked *Mr. White* if he knew of any captives insuring closure/post-closure. *Mr. White* answered that out of ten only one is for closure/post-closure has reinsurance and it is an off-shore company. *Mr. Taylor* reiterated that it is not commercially available in his experience. If the Board wants to encourage the use of captives, you have to find ways to release reinsurance capacity or develop it for that segment of the captive market. *Mr. Witmer* added that every situation is different and as far as how much reinsurance they should have, it would depend on the strength of the company and whether it is prudent.

Susan Bromm clarified that when we require financial assurance for the Superfund, we do not require the financial assurance until we know that a clean-up would be necessary. It is a quantified known amount to do the clean-up. In corrective action, we require financial assurance after the site has been characterized and an interim or final remedy is in place, so insurance is not right for that situation. From regulatory perspective it is not a risk, it is a sure event that requires financial assurance. *Mr. Taylor* said that municipal landfills do purchase liability insurance and are required to in most jurisdictions. The unknowns are not a huge issue from the standpoint of risk management as much as dealing with the estimation of costs accurately.

Jim Tozzi asked *Mr. Taylor* if a company had the option of setting up their own insurance or going to an insurance company would they pay lower premiums? *Mr. Taylor* answered that there is a transaction cost in using an insurance company, but insurance companies have wisdom and resources, such as engineers that could study the risk. It might cost more to hire these people than the transaction costs for underwriting for closure/post-closure, but they do not have the expertise to underwrite the risk accurately. The company would pay lower premiums to a captive and might save costs with a captive because they could insure for things that a traditional would not.

Mr. Taylor added that the market needs flexibility and companies need more opportunities for funding this risk, because the commercial insurance market will react negatively. Companies that have to meet requirements need more insurance mechanisms, not fewer. The prohibition on captives is not a good thing. If the commercial market dried up totally, captives would be necessary. Captives are regulated in a way that there is assurance of future conduct.

Ms. Rachel Deming asked *Mr. Taylor* if he foresaw companies getting insurance for unknown risks that they planned to retain and would that change the market if they did. Isn't it that there is a market for insurance when assets are being transferred where you go to look for unknown risks? *Mr. Taylor* said people buy insurance when they are in a purchase transaction and have a

lot of liability, so they buy cost-overrun insurance and pollution liability insurance for unknown risks. He thought more companies should be buying pollution liability insurance.

DOF Meiburg asked what influences people to buy environmental liability insurance, if only one-third have it. *Mr. Taylor* responded that it is required in some property transactions for related to clean-up costs. In the past, a large company such as General Motors could be trusted to cover costs, but this is no longer a safe assumption. The Safety Act of the Department of Homeland Security requires that manufacturers of technologies to prevent terrorism purchase all the insurance they can in the commercial marketplace.

In response to a question about the lack of captive insurers in fronting schemes, *Mr. White* said that of ten captive insurers in Vermont that are writing closure/post-closure none are fronted.

Office of the Inspector General (OIG) Findings on Financial Assurance

Stephen D. Hanna, Ph.D., Office of the Inspector General, USEPA

DFO Meiburg introduced *Dr. Hanna*, who has an expertise in hazardous waste and previously managed the California Toxic Release Inventory Program (TRI) *Dr. Hanna* was one of the authors of the OIG Report on Financial Assurance. (See Summary of OIG Report, September 25, 2006.) *Dr. Hanna* would discuss the findings in the OIG Report titled: *Continued EPA Leadership Will Support State Needs for Information and Guidance on RCRA Financial Assurance* and the 2001 OIG report on financial assurance.

Dr. Hanna's presentation covered OIG activities, questions addressed in the evaluation, methods of the report, findings, conclusions and recommendations. OIG's vision is to be a catalyst for improving the quality of the environment through problem prevention, identification, and cooperative solutions. The goals are directed towards improving human health and the environment, agency business practices and accountability, and OIG products and services. OIG's Office of Evaluation basically looks at program areas to see if they are performing as they should. On the website there is a list of reports completed on recent work.

Projects are initiated by their own office, Congress, the President, and EPA. The 2001 financial assurance report was initiated by EPA's Office of Solid Waste, but the 2005 report started within OIG. The program evaluation process includes research, fieldwork, and report writing. Reports are independently reviewed before they are released.

For the 2005 report, three questions were asked: (1) What information exists on the effectiveness of the existing RCRA Subtitle C financial assurance requirement? (2) What assistance is provided to states and regional by EPA's Office of Solid Waste to ensure adequate review of financial assurance requirements? And (3) Should existing financial assurance requirements be modified? Interviews of EPA offices, states, and NGOs were conducted between August 2004 and September 2005. Existing reports and documents were analyzed.

The 2005 findings related to states' and regions concerns included some of the following:

- Lack of national data on companies and financial assurance providers
- Lack of an effective mechanism for communication to states and regions

- Insufficient guidance on insurance
- Allowance of captive insurance as a mechanism
- Conflicts between the current financial test and generally-accepted accounting principles
- Lack of regulations on corrective action financial assurance.

Dr. Hanna described EPA's response to the 2001 Report. EPA agreed with all of the recommendations, but took action on only two of them: improving existing financial assurance training materials and providing cost estimation software to states. The 2001 report concluded that captive insurance did not provide an adequate level of financial assurance.

Findings related to Question 1 about what financial information exists indicated that financial assurance information was not routinely collected by states or the EPA; that financial assurance was not the problem for 21 problem facilities; and that EPA's planned actions may address some data limitations, such as, the addition of financial assurance data elements to EPA's hazardous waste information system and RCRAInfo.

Findings related to Question 2 regarding the type of assistance needed showed that there was no way for states and regions to share information and no master list of state and regional financial assurance contacts. Formal guidance on insurance needs to be updated, including standardized insurance policy language, better methods of dealing with TSD's whose policies are cancelled, possible litigation issues, and reimbursement for costs by insurance companies vs. direct access to funds. EPA's oversight of state programs had missed by allowing mechanisms not approved, and not following prudent fiscal practices.

Findings related to Question 3 whether requirements should be modified found that EPA has plans and is acting to address many issues, such as improvement to the financial tests and corporate guidance, guidance on captive insurance, methods to improve cost estimates, and application to entities not covered by RCRA. State actions include exclusion of captive insurance in 13 states, a reduced pay-in period for trust funds, limitations on financial tests and corporate guarantees. States and regions support the revision of national financial assurance standards through a formal rule-making process. A chart of the regulatory risk vs. the facility costs indicated that letters of credit and trust funds were low risk and costly; whereas financial tests, corporate guidance, and captive insurance had high risks and low costs. Industry representatives considered present mechanisms to be adequate.

Recommendations and EPA's responses to each question were briefly reviewed by *Dr. Hanna,* as follows:

- Question 1: EPA should incorporate modifications to RCRA to improve financial assurance data collected at the national level. EPA will incorporate financial assurance elements into the next upgrade of RCRA.
- Question 2: EPA should establish effective mechanisms of communication with states and regional financial assurance staffs, define the guidance, improve oversight of states by regions, and continue financial assurance training. EPA indicated it would implement an information sharing mechanism to states and regions and will provide guidance, oversight, and training.
- Question 3: EPA should develop and communicate its plan for addressing the concerns with existing financial assurance regulations, including captive insurance, the financial

test, expansion of financial assurance, corrective action and post-closure coverage beyond 30 years. EPA agreed to develop a plan after completion of the Superfund 120 Day Study and after further progress by EFAB. A plan would be developed and released in July of 2006.

Questions and Comments

In response the questions from the Board, *Mr. Hanna* responded that:

- Captive insurance and the financial test are used by companies so they won't have to use their assets, but today's speakers said that the money was locked up.
- The same concerns were expressed for regular insurance and captive insurance.
- Many states do not have the expertise to analyze insurance companies' policies.
- Captive insurance was viewed as a lighter version of the financial test. Companies wanted to keep their assets and qualify in another way.
- OIG is not specifically working on a follow-up report, but that is always a possibility.

DFO Meiburg thanked *Dr. Hanna* for the overview and he valued OIG's independent viewpoint. OIG would like to have input from EFAB and hope that these workshops would provide an opportunity to express common understandings.

Panel 3: Why do some states allow use of the captive insurance option while others restrict or deny its use?

DFO Meiburg stated that the value of this panel was to obtain ideas from different people with different backgrounds about the use of captive insurance and options for financial assurance. The panel represents a broad spectrum of opinion. First, he introduced *Keith Powell, Financial Assurance Coordinator, Nebraska Department of Environmental Quality*, who has been working at NDEQ since 1993 and is a training resource for Region VII workshops. *Keith Kihara, Supervisor, Hazardous Waste Management Program*, *California Department of Toxic Substances Control*, has also been with the Department of Water Resources and the Air Resource Board in California. *Richard Swanson*, *Chair, Financial Assurance Workgroup, Territorial Association of Waste Management Officials*, and formerly Program Manager, Underground Storage Tank Management Program, Georgia Environmental Protection Division, is an expert on financial assurance.

Keith Powell, Financial Assurance Coordinator, Nebraska Department of Environmental Quality, would present his experience with insurance policies issued by captive insurance companies and on reviewing policies that are required for hazardous and solid waste facilities in Nebraska. When he started in 1993, Nebraska was introducing new solid waste regulations based on Subtitle D for municipal solid waste landfills. Financial assurance regulations were being implemented for the first time in the state for this type of facilities. Insurance policies were allowed under the regulations and under the RCRA hazardous waste facility for closure liability coverage.

Mr. Powell covered the historical use of insurance in Nebraska, insurance issued by captive insurance companies, research on captives, captive insurance issues, new regulations on financial

assurance, the effect of new regulations why the regulations were changed, and how Nebraska implemented the regulations. The experience is limited to one or two companies in 1999 and 2000 so there might be more up-to-date info available.

Major milestones related to financial assurance regulations were as follows:

- In 1994, the first insurance policy for closure and post-closure care financial assurance for a hazardous waste facility in Nebraska was issued.
- Assistance was requested from the Nebraska Department of Insurance and EPA for review of a commercial insurance company policy. They requested financial statements and their A.M. Best Company rating from the insurance company.
- Liability coverage insurance policy was submitted under RCRA Subtitle C, which was provided by a risk retention group domiciled in Vermont.
- In 1996, the municipal solid waste facility submitted a proposed insurance policy for closure and post-closure care from a captive insurance company and the policy was accepted.
- Research on captive insurance companies included the transfer of risk, which was not the same for captive insurance as it was for a letter of credit or a surety bond.
- The State of Oklahoma provided an example of a captive insurance company that was fronting for another one that was domiciled off-shore.

Major captive insurance issues considered by Nebraska DEQ included:

- <u>Transfer of risk</u>: If the risk is not transferred to a third party, then the risk is on the company. If it goes under, the insurance company would likely follow, and financial assurance would not be there. The promise of financial assurance is that it will be available if the owner cannot or will not meet the obligations. Third party mechanisms such as a letter of credit or surety bond would meet the criteria for financial assurance. Another mechanism is a financial test or a corporate guarantee. Financial institutions that issue the letters of credit or surety bonds have to meet certain criteria to qualify as a provider. Insurance companies do not have similar requirements.
- <u>The Level of capitalization</u> tended to be less for captive insurers than for general insurers. A letter of credit could be required from the parent company to capitalize the captive insurer, which could transfer the risk to the subsidiary. Under Nebraska law, a letter of credit in determining the amount of capitalization would not be allowed.
- <u>Minimal reserves:</u> Captive insurers have less stringent regulations and reserves may be less than the total claim and the parent company is allowed to subsidize the subsidiary. The lack of reserves also jeopardizes the transfer of risk.

Based on this research the department decided that additional criteria should be added to financial assurance regulations. After allowing stakeholders to comment on the new regulations, the Nebraska Environmental Council, which is made up of 16 members appointed by the Governor to adopt and promote regulations on environmental standards and laws, formally adopted the new rules. After formal adoption of new rules, they are reviewed by the Attorney General and signed by the Governor.

The revisions in 2000 were as follows:

- An owner or operator using insurance as a financial assurance mechanism must disclose whether the insurer is a subsidiary or has a corporate, legal, or financial affiliation with the owner/operator.
- An owner or operator much define the relationship between itself and the subsidiary and must pass the financial test criteria.
- The insurer issuing the policy must have an A.M. Best rating, must be domiciled in the U.S., have capital and surplus of at least $100 million, and must receive an unqualified opinion of their financial statements from an independent certified accountant.

The effect of the new regulations caused one of the companies to use surety bonds, and another facility using captive insurance started using the financial assurance test. Currently there are no captive insurers for a solid or hazardous waste facility in Nebraska. The regulations were changed because of the risks involved. The risks of the captive and the company are correlated and the failure of one is related to the failure of the other. Financial assurance is required and if there is a lack of reserves to cover claims and the captive is relying on the parent company, then the policy is not meeting the financial assurance requirement. Since a rating from A.M. Best includes the financial health of the parent company, the issue of transfer of risk is still valid. The parent company is really self-insuring using a formal mechanism.

In conclusion, captive insurance companies do not meet the intent of financial assurance requirements; need additional criteria for approval; and need additional documentation from facility owners to allow use of these policies. Not allowing the use of captive insurance policies may be an alternative.

Keith Kihara, Supervising Hazardous Substances Scientist, California Department of Toxic Substances Control, stated that there are 250 regulated facilities in California under Superfund Title C program, including commercial off-site facilities and those that handle their own waste. Only two companies use captive insurance, one is the operator of the largest landfill and the other recycles lead. He is speaking from the point of view of a scientist and regulator and not an accountant, but the state's concern is that captive insurance is like a financial test without the safeguards. Their concern is that if both the parent and captive go under it would be the same as with the financial test. If other mechanisms were used, and if either the insurer or the operator goes under then the other party can provide funding if they are solvent.

Pure captives may have the greatest problems, because the financial health of the captive is closely related to the financial health of the parent company. Concerns with the captive insurance includes the lack of an annual review of policies, no independent third party review, no ratios test or bond rating, and they don't have a $10 million minimum net worth. At least a financial test or a corporate guarantee includes those items.

They are concerned about captives that have letters of credit to capitalize and the parent goes under and the state calls in the letters of credit. The claims could be paid, but the State of Vermont is holding the purse strings and decides whether the claims would be paid. It is difficult with commercial insurance companies to get claims paid, so it would be more difficult to go through the captive and the State of Vermont to authorize payments. In some cases, claims need to be paid in a timely fashion, especially if an operator goes under and something needs to be done to control pollution.

The OIG, GAO, and California legislative analyst's office have identified captive insurance as an issue. We had a commercial landfill go under and the state had to step in and direct activities and so they looked at all captive insurance. Even if the EFAB Board makes a recommendation and EPA agrees, California will not wait to issue recommendations about captive insurance and other financial assurance mechanisms.

Financial assurance needs to be carefully defined. It should mean how confident a regulator could be that a mechanism is in place that will pay for closure and post-closure activities or corrective action. Rules should be written so the scientists and regulators would be able to understand them. The requirements should be tight enough so they can feel confidence. The differences between captive insurance and other insurance need clarification. If captive insurance is more an art than a science, this statement would bother scientists. From a scientist's perspective, we would like to be assured that coverage is there and the government won't have to step in and use taxpayer's dollars to take care of sites.

Richard W. Swanson, Chair, Financial Assurance Workgroup, Association of State and Territorial Solid Waste Management Official, said he did not know why some states allowed captives and other do not, but it may be related to the wholesale adoption of the regulations by the Federal Government in the early 90's. The regulations allow insurance, but do not mention captive insurance; so when industry invented this mechanism everyone, including EPA, was surprised. Some states certificates or policies of insurance are the same in appearance for captive and commercial insurance because many of the state programs are run by geologists and scientists who do not understand insurance concepts – no differences are noted or are readily apparent to staff. About 13 states do prohibit the use of captive insurance in either hazardous waste or solid waste programs. There are 26 states that are more restrictive in their rules for captives than EPA.

States understand that a captive insurer is owned and controlled by its policy holders and is formed to insure the liability of its owners. It is generally unlicensed except for the state of its domicile. It is a financial arrangement for a deliberate retained risk and the financial strength of the company is dependent on the financial strength of the parent corporation. About 50 percent of reinvestments in Vermont are loan backs to the parent in terms of commercial paper and stock. There is a tremendous lack of uniformity in how states are treating loan backs and this inconsistency alone demonstrates a need for national regulations concerning captive insurance company operations.

Mr. Swanson is not aware of any financial loss in the environmental area to any state to date due to a failure of a captive insurance company, and the states would like to see it remain that way. There is a large difference between a general and a captive that insures for the environmental closure and post-closure. Insurance may not be appropriate for closure costs. National coverage of loan backs needs to be as controlled as it is in Vermont. The financial requirements of subtitle C and D are implemented by the states and they need help with this issue. From a states' perspective, the parent of a captive retains an economic stake in any potential claim whether or not a covered loss occurs as a claim. The risk is not shifted as long as the parent can control it.

A transfer of risk is always a public risk, and this is minimized when you have an independent third party providing coverage. Chances of two companies failing at the same time are less if they are independent. There is no independence between a facility failure and a mechanism failure. It is distressing to hear that A.M. Best can go back and forth between the parent

company and the captive in assessing the finances of the captive. The basic tenet of insurance is spreading the risk among the different parties and captive insurance does not distribute that risk, especially in the environmental area with known closure/post-closure costs. None of the captives are reinsuring these costs.

For example, in one older case, Clougherty Packing Company vs. the Internal Revenue Service, the deductibility of insurance premiums paid to a captive was challenged. ([***811F,2d 1297***], a 1987 case out of the 9th Circuit Courtof Appeals). It has an excellent discussion of insurance and contracts and why they felt that a captive contract was not a true insurance contract. The payment of a premium is not deductible because the company was taking it out of one place and putting it in another within the same company.

Captive insurance is financial assurance like the financial test but it (captive insurance) denies the state the opportunity that the financial test gives them through annual reviews of the parent's financial status. One issue of concern with captive insurance and the waste industry under Subtitle D is that the purpose of the waste company is to consume its only asset, which is permitted, unused land space. There will be a large liability when this is consumed unless they keep obtaining more space and the liability is not insured by its wholly-owned subsidiary.

In looking at websites for purveyors of captive insurance, a lot of companies are coming up with captives which have lower premiums and allow the industry to control risk management. The question is do closure/post-closure costs have anything to do with risk management? If you own a landfill you eventually will have to pay the closure and post-closure costs, so if you are talking about known costs, then risk management does not fit.

Other issues mentioned by *Mr. Swanson* included:

- Sarbanes/Oxley and consolidated statements. There has been some discussion by the National Association of Insurance Commissioners of having a Sarbane-Oxley type of rule for the insurance industry.
- Remaining capacity reports related to solid waste and captives. His state produces a report for every landfill in the state to see how much waste will be taken in and when the landfill would be full and have to close and incur closure and post-closure costs.
- How a waste company would fare on A.M. Best tests in consideration that part of the capital structure test is quality and diversion of assets and quality of geographic concentrations.

Questions and Comments

An open discussion period revealed the following concerns, questions, comments, and responses from speakers: (*Persons were often not identifiable to the writer.)*

- Whether a captive company that met the financial test would satisfy concerns in California. *Mr. Kihara* said that it would be considered another component.
- If the financial assurance test was brought up to 2006 standards, and both the parent and the captive company met the criteria would this be better? *Mr. Swanson* said it would be better, but not ok, but he did not like the financial test, even for a preferred company.

- Most states do not have people dedicated to doing financial assurance, but if staff is available, then it could be reviewed.
- The use of a captive would deprive the state of the ability to use financial statements.
- Whether one state reports to another the results of financial tests.
- The ability of states, other than Vermont, to fund additional personnel
- The ability of captives to go off-shore and get certified. However, for Subtitle C facilities the insurer has to be licensed or authorized in one or more states.
- The inability of most companies to meet the high standard of $100 million dollar threshold
- The need for a financial assurance test that works for both the regulating and regulated communities
- Whether a rating from A.M. Best would be satisfactory to a regulator, if a company could not meet the financial test
- Whether closure and post-closure costs are insurable, since they are known costs.
- If the captive states they will pay the costs at the time of closure, then it is simply a transfer of costs to the insurer.
- How certain the estimates are of closure costs when determining the premiums.
- Whether the captive is basically a trust fund mechanism or an insurance policy. If it is a trust fund and is not needed at the end, then the funds would revert to the company.
- Outstanding loans of a parent would be taken into account when rating a captive.
- An insurance company with a good track record could use that as a substitute for captive experience.
- If the captive is strong, but the parent company's performance is declining, then this would lower the captive's rating
- Change of personnel would affect the state's ability to rate captive insurers.

EFAB's role could be to provide states with clarity on when and how it is appropriate to use captives. Since the states do not have the staff expertise to do the analysis, the financial test or other financial assurance mechanisms need to be made very understandable and without a lot of need for analysis. *Richard Swanson* said that captives are generally not acceptable to most states, but assuming that they continue nationwide uniformity of the minimal performance standard is required to assist the states. A model captive insurance company to determine minimal capitalization or ratings is not available. But assuming captives are here to stay, it would be best to devise nationwide operating standards. *Keith Kihara* said California would accept captives under certain condition. *Keith Powell* said that Nebraska has stated its conditions for use of captive insurers.

DFO Meiburg summarized the discussion as follows:

1. Issue of confidence—how much of a safeguard is established by a regulatory regime? Vermont is persuasive, but not enough for some.
2. Control – jurisdictionally relevant, it may be good enough for Vermont; it may not be good enough for another state.
3. Captives in general vs. captives for closure and post-closure and corrective actions. Captives may be suited for risks that are small or relatively predictable as opposed to risk where there are wide swings of potential liability.

4. Issues about captive insurers and insurance in general. Regular insurers also have financial problems. The question was whether you were creating a trust or some other function.

DFO Meiburg offered *Mr. Witmer* and *Ms. Guerra* the chance to have some final words. *Mr. Witmer* stated that the tests and ratings are used for both a captive and a general insurer. *Ms. Guerra* said that in discussing captives most of the concerns seem to relate to closure and post-closure assurance. She hoped that they had imparted positive knowledge to the Board. *DFO Meiburg* thanked the panel members for their constructive comments and shared knowledge and then opened up the workshop to public comments.

Public Comment Period

David Case, Executive Director of the Environmental Council, said the Council represents the hazardous waste industry. He commented that a number of the Council's members use captive insurers for closure and post-closure costs. Some of the questions that arose today could have been answered by the companies that use captives and he urged the Board to hear from them. His concern is that the model is a landfill and most of his members use incinerators, which will operate indefinitely.

Companies use captives because it is good business and since they use fully-funded insurance, it is like a trust fund. They are putting the full amount aside so they can benefit from the investments. Companies have closed facilities without using insurance money and then have used that money to insure alternate facilities. More flexibility and more options for financial assurance are needed. The Council's members are not using captives, but want other financial instruments to be available in the future in order to be more competitive.

DFO Meiburg asked if there were other public comments or any closing thoughts from Board members. He thanked the panelists and members of board on behalf of agency. He reminded them of the workgroup meeting at the EFAB Board meeting in August, 2006.

Adjournment: The meeting adjourned at **3:15 p.m.**