Release Numbers 33-8655; 34-53185; IC-27218

Mr. Chairman and Honorable Commissioners:
You have solicited comments on the proposed rule "Executive Compensation and Related Party Disclosure."
Your stated objective for the rule (amendments) is to "provide investors with a clearer and more complete
picture of the compensation earned by a company's principal executive officer, principal financial officer
and highest paid executive officers and members of its board of directors." Your initiative is fully in concert
with the "SEC mission as law enforcer, overseer of the capital markets, and general protector of investors."

Introduction
This is the third of three submittals responding to your solicitation for informed remarks from outside your
considerable realm of cohorts on this initiative. Even a cursory study of the record will find the head shed
remuneration debacle, reposed and addressed here by the SEC, to be a routine script of the business
community, sanctioned by statue, common law, and by the public conscience. Any organizational attributes
like transactional opacity that survive centuries of war, catastrophe, litigation and regulatory orthodoxy
intact, warrant extraordinary respect. It would have been helpful if the SEC rule-proposal discussion had
delved into the benefit field of opacity in corporate governance. Opacity is the intended condition, for sure,
and it is under control.

Whatever the specific future holds, we know dealing with this sideshow to the main tent will be neither
simple nor quick. Such complex, tightly coupled, sociotechnical matters, durable against conventional
stakeholder remedies, comprise the homeland of the systems engineering discipline. The themes in this
submittal originate and propagate from well within the ubiquitous institutional blindspot, the ideological
donut where engineering foresight takes place. To expect the alien, menacing world of systems design to
directly transcribe to the bright factotums of hindsight, however, sits at the epitome of wishful thinking.

As a veteran practitioner in this socially despised realm, it has been fruitful to paint myself into a corner,
with a touch of humor. It subscribes to Friedrich Nietzsche's view: "And we should call every truth false
which was not accompanied by at least one laugh." The fun part of being hoisted on one's own petard of
contradictory reasoning is that it never fails to evoke spontaneous applause from the audience.

The first leg of the logical impasse formed when the second submittal explained the limits of institutional
competency established (gratis from natural law) by the exclusive focus on hindsight – the universal sacred
core dogma of all institutions. The discussion was conducted on the same cognitive level, hindsight to
hindsight, and the SEC received and understood the message without incident. Yet here, in the third
commentary, the central topic is the very subject matter held institutionally undiscussable. PEs soon learn the
inherent folly of promoting the appropriate use of objective foresight (transparency) to an institution. It is the
pursuit of the impossible and quickly perceived as an unbridled audacity, not to go unpunished.

This dead end will be avoided by segregating the taboo topic into three cognitive tiers with an order of
magnitude separating layers. The first tier, which the SEC as is will understand, is what the new de facto,
mind-boggling competency of engineering foresight *means*. Should the SEC consider the stated significance
sufficient to validate the facts of this meaning, a second layer of detail, what engineering foresight *is*, is
provided herein to guide outsourcing the validation task. One convenient aspect of delivering transparency is
that the process of attaining that attribute is transparent also. The secret is not flawless human practitioners,
but the application of an infallible error-removal process. Systems engineers call transparency, like the
hologram, a nested attribute. All pieces and parts carry the same characteristic.

The proven communication strategy maintains a third layer of knowledge detail and documentation, *how*
engineering foresight is conducted, using the grammar and syntax of our discipline, for the benefit of any
validator chosen by the SEC. It is the factory floor of engineering foresight, design, where the no-nonsense
process of delivering transparency takes place. While SEC monitoring of the validation process along with

your contractor would be warmly welcomed, you would not be comfortable in this strange realm of masterless men speaking mathematical physics in a collegial environment dedicated to knowledge development focused on goal-seeking productivity, drenched in a spirit of engineering eudaemonism. To the PE, that context is "plain English." It is the standard Skunkworks format, aptly named by Lockheed's Clarence "Kelly" Johnson. The modern term for the ever-nameless engineers that inhabit a Skunkworks has evolved from *nerds* to a softened version of *geeks*. Pragmatic foresight, key to transparency, can occur in no other environment.

Skunkworks can be found in many places besides Lockheed. NASA and its contractors, for example, call the engineering Skunkworks that get the robots and payloads they design to and fro in 3-D space, so the scientists can do science, the "back room." The Skunkworks that selects and shapes and commands the flight paths of the various probes and satellites is called the "trench." You will never see the masterless men of the Skunkworks on NASA publicity. On the occasion of institutional crisis, Skunkworks have even existed temporarily at the SEC. The USA military calls theirs "special forces." To the PE, forming a Skunkworks up front is routine goal-seeking protocol.

The blindspot homeland of engineering foresight functions in a cognitive stratum and grammar that prevents fruitful working-level communications to the institution. The cognitive workload requisite at the "designer" level is at least two orders of magnitude more than the mental demands of obedience to authority at the "operator" level – Grand Central to all institutions. Tom Watson, Sr. of IBM called obedience "saving the wear and tear of thinking." This constraint calls for the generous use of examples to illustrate pieces and parts of the process. Remember, there is no connection between IQ and cognitive capacity. Engineers get the standard issue of the same cranial equipment labeled *homo sapiens sapiens* that populates the SEC.

Understanding at the designer level requires substantial investments in building the associated knowledge platform and procedural skills. Also, the allocation of brain parts to the system design task is noticeably different than that for compliance to rules. This is why validation must be outsourced. Few SEC regulars have to be well grounded in the natural laws as a condition of employment. On the contrary, …

The huge cognitive workload gap puts an unprecedented twist in the great leap forward made by engineering foresight on the back of intelligence amplification. The exceptional characteristic, unnoticed by engineering because the new tool is taken for granted just like the other tools in our shed, is completely accidental and unintended. This matter is brought to your attention not because you can change things, but so you can witness and understand what is now taking place all over the USA for yourself – and seriously messing with your future.

Prime mover of the engineer's bonanza
To avoid misunderstanding, distinguish that intelligence amplification (IA), engine of foresight, is engineering stuff; artificial intelligence (AI) is science stuff. All government and institutional support goes to AI to enhance and replicate human IQs "artificially." Not a farthing of support goes to advancing IA, where the amplification put to work often exceeds the coordinated output of a million human craniums. In 1960, the English polymath W. Ross Ashby first assembled and announced intelligence amplification as a complete scrutable working paradigm. The societal bias confirms that AI is organizationally neutral, while IA sits squarely in the great blind spot.

Ashby defined intelligence as a competency – appropriate selection. Few popular terms, in definition, evoke more emotional response than *intelligence*. The associated circus of irrational views is too intense for an objective discussion to take place. Test this at home, anytime. The rationale of Ashby's definition, all based on natural law, is entirely compatible with the engineering process. The notion of appropriate selection is connected to the brute facts of exponential growth in system complexity. Big, messy complex problems require big quantities of intelligence to resolve appropriately with objectivity and transparency. When did the Oracle of Delphi last solve a problem for you?

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Right from the birth of power amplification with James Watt in the 18th century, the power-to-work amplification was unlimited and general. Everyone could see in tangible plain English how power was multiplied and everyone could use this technology directly to local benefit. The advent of Watt's engine immediately triggered the machine tool age, eventually leading to mass production. Today, power amplification is taken for granted – any amount, any place, any time. The surge in affordable intelligence amplification "horsepower" is not following this sensible pattern of progressive development.

Harnessing intelligence amplification, institutionally forbidden, is falling selectively to engineering foresight by default and, accordingly, so are its genie-strength benefits. It is not in general use by whomever it may concern. The professional legions of hindsight have found little in intelligence amplification to benefit hindsight practice. They can't even agree on what intelligence is. The realm dominated by rules and subjectivity has little enthusiasm for *any* differential intelligence – no less intelligence amplified by several orders of magnitude.

The rejection of IA by hindsight means awesome power concentrated, by settled habit, into the hands of a loathed, quarantined idiot child of society. It is the one place where the growth in computational power translates immediately into advantage primarily and selectively for expanding engineering competency. Once you know what to look for, you can see the fruits of intelligence amplification, always entering by the back door, everywhere. You are already addicted to the artifacts enabled by intelligence amplification as operators of the engineered systems it empowers. Without massive intelligence amplification, there would be no cell phones, satellites or GameBoys, to name a few. It is through the democratization of intelligence amplification that engineering foresight was able to achieve the zero subjectivity requisite of transparency.

Detecting no application difference between power amplification and intelligence amplification in design, the PE takes them as needed in goal seeking. Whatever the design requires can be provided out of some catalog. Intelligence amplification went through the practical barrier between unaffordable and unlimited application a decade ago. The advances in cell phone functionality track intelligence amplification progress one for one. As computer power grows, it leaves one cognitive layer after another permanently saturated with all the intelligence hindsight methodology can use. For the intelligence amplification application to engineering foresight, there is no foreseeable limit.

Media examples of engineering foresight applied
One ongoing expression of engineering foresight you collide with on a daily basis is weather forecasting. You might have noticed the substantial improvements in forecast accuracy won during the last decade. This advance was not obtained by using forecasters with higher IQs or by a new scientific breakthrough, but by engineers surfing on the front wave of intelligence amplification. While the mathematical physics of weather has been known for a century, projecting system dynamics forward in time step by step is an engineering job requiring amounts of computation in geometric proportion to the detail and length of forecast desired. Using the supercomputers available in 1990, the weather service was limited to tens of millions of calculations per second.

In 2006, the supercomputers used by the weather service engineers crank at several trillion calculations per second. This is intelligence amplification embedded in engineering foresight that shows up directly in more reliable and detailed forecasts (futurecasts). You can even compare the calculated futurecasts to the actual weather map. The impact of this competency is global. It wasn't that long ago when forecasters consulted the Farmer's Almanac and local folklore in composing their judgment to make forecasts. Cyclone tracking was informed guesswork.

Another classic of engineering foresight applied, laid out in full and clear detail by PBS Nova, is the DARPA "Grand Challenge" 2005 Robot Car contest. DARPA knows the sure-fire formula for getting big problems solved. That wise agency pulled the same trick to bring you the Internet. Since King Solomon, the foolproof

strategy for solving critical problems has remained unchanged. First you establish a value on the new functionality you want. Then, you specify your want in explicit engineering terms of dynamics – the unambiguous criteria of success. After you issue the challenge and herald the associated prize, you do nothing. As news of the challenge gets around, engineering Skunkworks decide to enter, or not. Only an engineering Skunkworks has the remotest of possibility to reach the goal. When some engineering team requests the exam for the prize, it will be the first time you find out about the viability of your Grand Challenge design. Knowing that institutions will shun the opportunity to prove their worth does not reveal those hidden Skunkworks, masterless and self-funded, which will take up the quest.

For DARPA's Robocar prize of $2 million, the list of contestants is less interesting that the institutions that do not enter. None of the big automakers or military contractors even thought of entering such a contest. So, as with Paul B. MacCready's Gossamer Albatross human-powered flight across the English Channel, only engineering foresight can rise to the new functionality challenges. When the annual field day of trial began in 2003 for the 150-mile course, most entries immediately crashed out in full view of the start grandstand. In 2004, the best almost made it to the finish line. In 2005, five entries made it to the finish with the quickest time (Stanley) under 10 hours declared winner. With no room for debate, zero subjectivity, the prize was awarded to Stanford on the spot.

The same scheme, exactly, got Burt Rutan's SpaceshipOne into space for a relative pittance. In all cases, the method used was engineering foresight with much trial and error in dynamic conditions simulating the trial itself. Rutan's achievements are all done with heavy intelligence amplification. Unlike the RoboCar, you can't try space systems out in real space. The instant the prize is awarded, all the feigned media and institutional interest in the methodology evaporates. Even the winning team was disbanded, as were the losers, when it got back to the home base institution where rules rule. Rutan keeps his prize-winning Skunkworks intact for the next challenge.

In the usual triumph of institutional ideology over foresight, the hierarchy, always moving farther out of touch with the ordinary realities of productive industry, continues to distrust the engineers, whom it does not understand, but whom it can also not get along without. Hierarchies continue to employ engineers to make money for them, but they have done so only reluctantly, tardily, sparingly and with a shrewd circumspection persuaded that the use of engineers was indispensable to the making of money. As Starkermann computed with control theory, the hierarchy comes to be no better than an idle wheel in the economic gearbox, serving only to take up some of the lubricant. The more that comes to light, the more visible the difference between the avowed purpose and the tangible performance. In time, stakeholders will compare what is done with what should be done.

The SEC is ideologically forbidden to employ what PEs are compelled to exploit to the fullest. You need not feel curious as to where this enlarging disparity will lead. The fixed levees of institutional power, predicated on hindsight, cannot stand against the incessantly rising waters of foresight competency. The SEC operates thinking the domain it regulates is a closed system, when it fact it is not. When the dike is breached, most likely to occur from a surge in tort litigation, it will be too late to stop the hemorrhage of power. It is another manifestation of Ashby's Law, where nature never takes *No* for an answer.

As regulator, this will be your first exposure to transparency, as defined in the initial submittal. It will perforce be your first exposure to a zero subjectivity deliverable. Be warned that you cannot dispense with transparency implications with the usual legal armamentarium and power of authority. If you try normal methods, and you will, what you will get for your trouble is a detailed description of where, exactly, you are attempting to defy natural law. Since subjective benchmarks, e.g., reasonableness, backfire against engineering foresight, you should prepare, in advance, official SEC definitions of transparency and the zero-subjectivity submittal. You cannot get by without objective definitions, as you do with the proposed rule, by pulling rank. How can you expect to benchmark submittals for transparency when your auditors don't have a working definition of transparency? Because the remedy you seek can be no better than your goal

specification, think DARPA, failure to provide working level definitions of the key words tells the engineer you don't really want the stated goal.

What does the fact of transparency achievable mean to the SEC?
At the top, in the local tactical scene, being directly informed about the advent of transparency grade engineering foresight carries no significance into the SEC at all. The herald can be ignored with impunity. The established institutional ideology will continue to serve both the regulated and the regulators in stability and equilibrium – as if the binary system was closed. To the SEC, of course, there is no blame and no sense of shame attaching to all this everyday waste and pillage that goes to make up the workday total of management. All of it is a legitimate part of the established order of business enterprise, within the law and within the venerable ethics of institutional hierarchies. All tangible meanings to the SEC are indirect with a large lag.

The risk in willful blindness is that it provides time for the advantages boiling up within the great blind spot to accumulate. As every engineer learns working with applied natural law, the laws you choose to ignore don't go away. The most sinister disturbance related to SEC status quo originating in de facto transparency is the perceived erosion of power by the institutional head shed. The listed suspect everyone they contact until proven innocent and look to you to provide symptomatic relief. The lobbies are busy all right, but they are clueless as to the source of their client's angst. The revered safe haven for business as usual is shrinking. Your binary system turns out to be, like it or not, open to disturbance.

Management assumes a running veto power over the engineers and their produce. They are hired to do their bidding and fired if they do not. By settled habit, oblivious to the PE code of ethics, the public is unable to entrust any appreciable responsibility for their welfare to any other than business men. This sentimental deference to the sagacity of businessmen is massive, profound and alert. Popular sentiment will not tolerate the assumption of responsibility for design by the engineers, who are considered a fantastic brotherhood of over-specialized cranks, not to be trusted out of sight except under the restraining hand of safe and sane businessmen. Managements wouldn't believe the brotherhood of engineers as the root cause of their angst if you told them in plain English.

The longer term meaning will not be welcome news to the SEC. Dealing with effects while the causes increase disparity unhindered, eventually will reach a tipping point in a system external to the SEC. Making believe the competency of transparency doesn't exist will justify status quo, but crisis response after the levee fails won't work here any better than it did for N.O. The threat is spring loaded to act fast. When trial lawyers figure out how to make serious money leveraging the new de facto competency in the tort foreseeability standard of care, and they will, their litigation windfall will escalate to an explosion.

What pragmatic foresight *is*
Our primary duty here is to present the objective, matter-of-fact case hung on a coherent structure that can be independently and readily validated by any discipline. The target audience for this esquisse, at level two, is the qualified auditor, assessor and benchmarker intermediary to whom you would outsource the validation task. Essential auditor qualifications include a working knowledge of the natural laws and experience with the practices of pragmatic foresight to project system dynamics forward in time. Once you have validated the competency expressed here to your satisfaction, the (future is now) door will be open for you to anticipate the SEC's challenges that lie ahead, on your own.

Unlike the practices of hindsight described in the second commentary, engineering foresight is a competency the SEC as an institution can exploit, but never possess. The discussion here is necessarily done in general terms and other exaggerations in service of the truth. While there are no expectations that the SEC will inform itself about control theory, e.g., although it really should, there is substantial risk to the SEC in ignoring this new plague to the status quo. Think N.O. with an approaching cat 5.

We hope you will become fascinated with the fact that we can nail possible futures with zero subjectivity while professing at the same time that the past will forever remain debatable and controversial. How in the world can foresight be done to the strict standards of transparency, while hindsight is doomed to the fate of unmeasured translucency and the endless conflicts in opinion? Don't we have it upside down?

The short answer is the goal specification in explicit dynamics - prepared in a rigorous, structured format we call "the front end." This apparent conflict is driven by the fact that the particulars of recorded history are just as unlikely as the path the future will actually take. The big difference is that history never comes with the reference goals so we can compare actual to intended. In fact, intended goals for the past never precede history of the actual past, since goals serve little purpose to operating by hindsight. Only tort deals with objective foresight and only retroactively, after damage has already been inflicted, at that. It is an exact duplicate of the DARPA scheme to get great novel functionality fast and cheap, bypassing the institutional barriers. You first pose the objective in unambiguous engineering terms of dynamics that all concerned parties can measure for themselves with instruments. Should the goals not be explicit and measurable, no amount of prize money can compensate. Skunkworks are not naive.

Engineering foresight is enabled first by the assembly of the candidate solution viable in its application environment expressed completely and scrutably in mathematical physics. The system context was specified in "the front end" work as a set of design basis scenarios. An example is the DARPA field day test for the prize. The teams knew in advance, e.g., that the road course did not include crossing rivers. The actual course was revealed only two hours before launch.

The candidate solution is then configured into the syntax called for by the framework of the particular modular modeling program suite chosen. These programs, such as VisSim and PC Trax, provide the modules, built from natural laws, and the connecting rules among the modules. The basis for driving system dynamics forward in time steps by natural law is control theory (James Clerk Maxwell, 1868) the dominant natural law in this whole affair. It is control theory expressed in Newton's calculus that forces the model to be complete and properly connected. It is a pass/fail relationship. Leave anything required out or sufficiently erroneous and the model will not step forward in time at all.

Newer modular modeling programs offer some help as to where the errors might be, but building a robust virtual reality is a grueling process of finding and removing the errors. Once the model runs, you find more errors by comparing what it delivers with operational data from a real-world benchmark. It is control theory that serves as taskmaster and gatekeeper. Computer gamming, e.g., consists of little else but manifest control theory applied. That's the only way interactive games can work. You can't store the zillions of possible states predetermined like frames of a movie film. The mass of the universe could not provide enough film material. You have to compute each frame on the fly using an approximation of the system *transfer function*.

Once the model prepared for the design basis scenarios is error-free, off you go by activating the event trigger. This is, exactly, the place where intelligence amplification comes in. Computational horsepower of great magnitudes is requisite to drive sophisticated models forward in time in practical time steps. For example, the winning DARPA entry, Stanley, consisted of an array of powerful computers doing control theory housed in an automobile frame, each completing its task in a time cycle to run the vehicle faster than an average of 15 miles per hour over rough desert terrain, sans guard rails.

Flush with operating experience, in a short time you discover the significant variables, always a humbling surprise to the designer. You then revise the model to allow reparameterization of those variables of interest on the fly while the model is running an event – just like the X-Box. This fresh operational knowledge input to the system designer drives his ingenuity to revise his system. The model then has to be constructed as reconfigured. And so it goes, the mother of all innovation – run, break and fix (RBF). The day finally comes when the specification is met, usually exceeded. Compliance is proven in discrete steps, scenario by scenario until the list of design basis events is exhausted.

With the goal defined in the same terms system performance is measured, validation consists simply of comparing actual data with benchmark data. There is nothing to debate. Zero subjectivity. The engineering foresight scheme is completed. Order the parts and go build the system. Does this platform for transparency apply to institutional transactions and internal control? Of course!

When the SEC evaluates transparency as its final objective, it should remember that the overarching compelling purpose for the PE is the adaptive, self-regulating system. To the PE, transparency is just a requisite intermediate step towards the final goal. In a self-regulating system, it is benchmark transparency that serves the intended-actual comparison necessary to implement the forward-looking attribute, called *anticipation*. It amounts to management by exception, instant by instant, as you go. In a self-regulating system, all the knowledge work in model design embeds in the system and remains actively contributing for the duration. Adaptive control techniques are available to use operating experience to improve the model automatically. Detecting risks feeding to the front end input to the system, however, will forever remain a task for human ingenuity. Here, rules are meaningless.

If you will but pay attention to the shaping factors being promoted by vendors of information technology for internal control of financial reporting, you will see that the concept of self-regulation is broadly understood. The notion of "continuous audit" is exactly that. You can verify that management detects, in the first instant, a threat to its power and promptly slays the matter – holding the vendors as contemptuous urticants. Self-regulating systems manage themselves.

In the service of prevention and avoidance, the self regulating system is the PE stop rule. Every vehicle that completed the DARPA course was a manifestation of self-regulation. There is no advantage to controls dedicated for each event, responding to that which the self-regulating system can handle along with the unpredicted and the sight-unseen. If more prevention is appropriate, the strategy is to warp the scope of the system upstream to fall under the self-regulating design umbrella. An example is detecting local tornadic conditions to temporarily suspend certain diesel generator interlocks sensitive to sudden atmospheric pressure drops. You don't want your aux power to trip out at the exact times you need it.

Of course, the best self-regulating systems cannot cope with every possible disturbance conjured up by the future. For the truly novel disturbances that lie ahead, we are defenseless. In like manner, massive releases of energy and matter that overwhelm dikes are also beyond practical self-regulation. The 500 year-flood, the category 5 tornado, the 2,500 year earthquake, and atomic warfare are examples of possible future disturbances beyond the system capabilities scope selected. The engineering design principle here states: "for every control system competency, there is a disturbance that will defeat it."

The 9/11 disaster, an example of the topmost genre of disturbance, was perceived by the public quite different from Katrina. The focus on 9/11 ended up on the crisis response population, held to be innocent of the instant tragedy and heroic in responding to it. The 9/11 report features some emergency response institutions as winners and most of the others as losers. The 9/11 event did not create the institutional incompetency for crisis response. Had the same criteria used to assess performance after the event been applied before the event, the same incompetence would have been obvious.

The Katrina catastrophe, another top rung disturbance, was appropriately forecast for decades and flagged for days before it struck. The Katrina report condemns every associated institution for incompetence, from top to bottom, zero winners. For institutionalism, Katrina was the perfect storm, laying bare the mismatch between its value system and the requisites to ride out the Katrina event successfully. The reality is that the Katrina class disturbance is far beyond the limits of institutional competency. The remedy is not, as Congress itself can see, more watchdog institutions or more enforcement of the rules.

What the adaptive, self-regulating system represents is the best available technology (BAT) for attaining the goal throughout the life of the application. Unlike a hindsight-only-based approach, operating experience automatically feeds control improvements on the fly. There will always be a residual exposure to cataclysmic events in a possible future that will overwhelm the self-control benchmark. While no more can be done than BAT, duty requires that we do no less.

Validating the competency of engineering foresight
The factory floor level, down and dirty, is the only place where validation can be completed. The claim of zero-subjectivity demands it. In effect, the validator becomes a valued part of the team. Transparency is as transparency does. There is, perforce, nothing to hide. The factory floor is where all the configuration and parameterization data is kept to support the modular modeling process. Each module is based on natural law with all the mathematics for connecting modules explicit. There are no black boxes. Modular modeling for dynamics forward in time cannot be done on any other basis. The system model won't compile and execute until everything is right with control theory. Then, and only then, does it become the infallible error removal tool so essential to transparency. This is hardly the stuff of institutional ideology.

In all the organizational machinery of society there is only one place where the two disparate dominions of hindsight and foresight meet on a rational, level playing field. While tort law was never invented for the scope it serves today, it has no equal as a neutral meeting ground of the two incompatible realms - where institutional lions must enter a den of Daniels.

The point of all this engineering intelligence stuff in internal control remains the same. Can engineering foresight be applied reliably to institutional transactions to attain full transparency without increasing the compliance budget? The answer is – certainly. Having already done pieces and parts for internal control over financial reporting, I estimate that the most of the transactions can be made and maintained transparent for half the current budget levels. Just getting the goals down on a coherent structure will pay for the trouble many times over. If the question shifts to, "Can hierarchical power retain absolute supremacy while transparency is being attained?" the answer is *No*.

There is a cultivated illusion that opacity comes free from business as usual, while transparency, whatever *that* is, is too dear for practical application. Because you have no transparency benchmarks to allow contrast, you grossly underestimate the total net cost of maintaining opacity through a changing regulatory environment. For us, the SOX 404 event was a splendid black-box test that provided a direct measure of institutional opacity. The louder the complaints about 404 compliance, the more ineffective the internal controls. Management is very sensitive about the thickness of its shield from scrutiny. The SEC goes through the same emotional spectrum with every GAO audit.

It is not only the institutional wealth lost to the head shed grab, the costs of intentional sabotage of internal control by management are many and various. You would not believe how easy and fast this illusion can be validated, just by doing a chunk. It seldom takes more than three days for the project to become self-funding. Rather than keep the SEC struggling to justify the added costs of compliance to rules, the listed should be challenged by the SEC to justify the costs of maintaining opacity when transparency is plainly more cost effective.

General Remarks
The hardest part for the SEC staff here is to accept the trail of logic that connects crescive engineering foresight competency directly to the proposed rule. When you accept the quantum leap in this core competency, realize the total institutional commitment to hindsight, you can better understand the executive angst about the stealthy erosion of its power. It is the tort wormhole that damaged stakeholders will exploit to capitalize on the advances in engineering foresight. Only tort supports foresight and stakeholder interests. Rules are useless in engineering foresight for the same reason no institution dared to make a fool of itself

trying to win the DARPA prize. NASA and its contractors were likewise mute when Rutan got SpaceshipOne in space, winning a different prize for his trouble.

The wormhole of tort law is destroying the protective equilibrium so long enjoyed by business as usual. The connection as efficient cause is direct. While society is already addicted to the fruits of this competency advance, such as the cell phone, it is aggressively oblivious to the engineering design process that enables it. It is engineering methodology that is siphoning off hierarchical influence, not the engineered artifacts produced. It is *only* objective knowledge of the system dynamics of a possible future that conveys the authority to act. Pulling rank to block looking forward quickly leads to bankruptcy.

What's the SEC to do about this future of turbulence? In customary form it will make believe the competency of transparency doesn't exist. Rules rule – even though no one in the SEC system actually believes the proposed rule will make any difference in the trend. These are not equilibrium times and the time cycle mismatch is fatal – no matter how astute the rules.

With all the diversity of commentary received, much of it useful, it is interesting that all parties seem content to play in the cat and mouse sandbox of head shed opacity. None, so far, have moved the level of examination up a floor to the value system that created the code-decode diversion in the first place. Every design engineer must solve the riddle at the top floors first, before descending to the comfort levels of physical functions and tangibles.

Dealing with the abstractions of institutional visions and lofty goals demands, no exceptions, the black box approach. The purpose of the system is what it does (POSIWID). From what it does, by classic black box testing methodology, you determine the de facto institutional value system, and expose the guts of its ideology. Follow what the head sheds are actually doing and you can figure out the value system at work for yourself. Management always gets the internal control it wants. It is seldom the stuff of stakeholder trust.

Stakeholders pay a stiff price to tolerate institutional opacity out of custom and habit. Sabotaging the means for risk-informed decision making ruins the opportunity for intelligent management. Opacity is rich soil for growing fraud, especially the large-scale fraud routinely engineered by senior management itself. Opacity fosters the need for regulating agencies, such as the SEC, and, in the same stroke, prevents regulators from fulfilling the Congressional mandates.

For now, this venerable alliance of regulated and regulator is safe. On the one hand, institutions have figured out how to maintain the opacity they feel they need at an internal cost that allows them to remain economically viable. On the other hand, the regulators, watchdogs, gatekeepers and sentinels have jobs poking around in the wreckage of opacity. As long as the regulators are not required to attenuate the damage opacity causes stakeholders, their jobs will be taxpayer-funded next year. Both sides have a vested interest in business as usual and agreements, called rules, have been struck to preserve it.

By habit, the regulator/regulated alliance wants to have it both ways at once. A venerable ally of the head shed as supreme commander of institutional fates, no restrictions, the SEC sits at one end defending discretionary control of the institution vested in the hierarchy. At the other end is the obvious attempt by management to opacify just how much of the corporate treasury they siphon off to themselves, even while gutting the employee pension programs. If the head shed has a value system so clearly contrary to stakeholder welfare, why does the SEC so aggressively defend the executive privilege to pillage the treasury?

I find the profile of a management that would intentionally foster opacity unworthy of stakeholder trust as institutional leader. The tug of war between the business judgment rule and rampant remuneration fraud can be seen going on within all media commentary. Rest assured the intentional design for opacity is not the work of honest citizens. Non-transparency is an attribute under management control, considered important

protection for absconding with institutional treasure that might otherwise accrue to stakeholders. Yet, when all is said and done, the SEC will bolster the operational context essential for opacity to reign – making moot the whole issue of compensation clarity.

Rest assured also that no head shed is going to stop short of meeting the established USA benchmark of 10% of net institutional income to the top five executives (Forbes: Lucian Bebchuk and Yaniv Grinstein). In fact, because of the growing risk of interference, the percentage will increase over time. The only way stakeholders will really learn how much was stolen will be after the fact. What would be the basis for projecting when the flow of scandal will stop? Check the fast-changing trend of CEO turnover rates. The days are dwindling when you can get credit as a responsible regulator for adopting a rule that actually changes nothing and brings more time for head sheds to take what they please. Your context is changing faster than the hindsight cycles of an institution can deal with. It is not a case of whether the SEC status quo will be destabilized by events, but when.

The SEC is commended for providing this convenient and effective method of submitting commentary.

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