

a smartass's guide to ISO 9001:2000

First Edition

By Anonymous



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FOREWORD

This document is satire.

Oxebridge Quality Resources is dedicated to implementing user-focused, profitable ISO 9001 quality systems for its clients. While we often question the status quo regarding ISO 9001, the company does not necessarily agree with all the sentiments of the author.

Eyesore 9000 does have some good advice buried inside the satire. It is based on **ISO 9001:2000 "Quality Management Systems—Requirements,"** but does **not** include the text of ISO 9001 If you are going to use **Eyesore 9000** as any kind of implementation guide, you really must use in conjunction with the actual standard, which can be purchased from www.ISO.org.

That being said, we hope you'll enjoy this in the spirit of fun it's meant to invoke.

ABOUT OXEBRIDGE

Since 1998, Oxebridge Quality Resources has been implementing radically different ISO 9001 quality systems, as well as systems built on AS9100, ISO 17025 and more.

A company built by people with practical ISO 9001 implementation experience, Oxebridge eschews traditional consulting run by academics. Instead, all implementation plans are built on a core philosophy that emphasizes Quality, Usefulness, Value and Ethics. Each and every program we implement must meet those four requirements.

Oxebridge is also the only company offering proven "Rapid ISO 9001 Implementation." Despite the astounding implementation timeline --- putting ISO 9001 in place in less than 40 days --- Oxebridge clients have an unprecedented 100% success rate with the registrars of their choice. Furthermore, each implementation project emphasizes the client's view point and eliminates unnecessary meetings, steering committees, day-long training sessions and anything that shuts the company's operations down or takes its employees away from their normal work.

We invite readers to learn more about Oxebridge and its very different approach to implementing ISO 9001 from the user's perspective, by visiting **www.Oxebridge.com**.

For Jack West

ISO 9001:2000

Quality Management Systems:All the Things You Gotta Do To Keep That Big Customer Happy

Translated into Real Gosh-Darned English

Introduction: Ignore This Part

0.1 General

How you develop your company's quality system is up to you.

Tell the registrar to get over his ego and accept the fact that it's **your** company, not his. If he was smart enough to run a company, would he be working for a registrar? Please.

How you document it is your business. Feel free to use scratch and sniff in your Quality Manuals. Do the whole thing in Morse Code. This Clause specifically prohibits the registrar from mandating the format of your documentation, or the methods by which you execute ISO 9001. It's the Clause they don't want you to know about.

0.2 Process Approach: Don't Ignore This Part

We really, really want you to adopt a process approach to management. We'll explain what that means later, but trust us, it's a good thing.

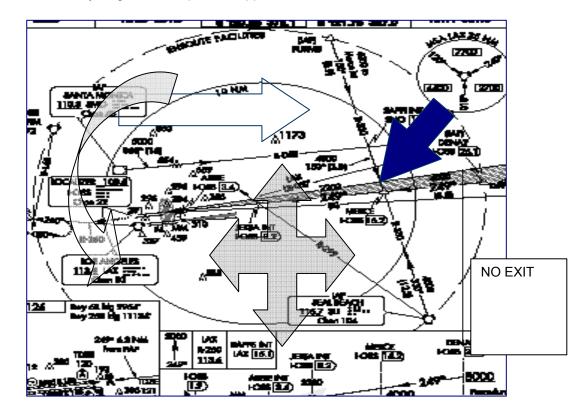
While you're at it, you ought to adopt the PDCA model of management, which stands for:

Plan: Stop and think before you do anything stupid.

Do: Okay, now go ahead and do something...

Check: Uh-oh, you did something stupid. Better see what you did wrong.

Act: Good going, Sherlock, now fix your mistakes and go back to PLAN. Hopefully you'll get it right next time.



Here's a handy diagram of the process approach to make it easier to understand.

0.3 9001 + 9004 = \$180 US

ISO 9001 and ISO 9004 have been developed as a "consistent pair" of documents. Don't worry, we don't know what that means, either, but it sure justifies the \$180 we charge for the document set.

0.4 Compatibility With ISO 14001, erm... I Mean "Other Standards"

In order to sell more standards, we developed this standard to align with ISO 14001. Some day we're going to merge quality management (ISO 9001) with environmental management (ISO 14001) because contrary to what we said in 0.1, we really *do* plan on telling you how to run your business, and in our view quality and environmental management are kissin' cousins that need to get married already.

But just wait: when we finally merge 9001, 14001 and OHSAS 18001, we'll be justified in selling the standard for an even grand!

1 Scope: The Road Towards World Domination of ISO

1.1 General

The goal of this standard is to define how to manage and improve your company because, let's face it, so far you've pretty much mucked it up. Don't believe us? Go ask your customers. The ones **not** busy suing you.

1.2 Apply This Standard to Everything

We really, really tried to develop this standard so it could apply to all kinds of companies in all kinds of businesses. As you'll see, we didn't do too good a job. You'll notice that about one-third of the way through we stop talking about service companies altogether, and we're pretty much still fixated on product inspections. If the standard really had been ubiquitous, then I guess there wouldn't be so many sector specific standards out there now. Oh, well, live and learn.

Oh, by the way, because so many of you got confused over ISO 9001, 9002 and 9003, we did away with the last two. Now you can just implement ISO 9001 and pick and choose which clauses you like... er, I mean, which ones apply to your company. But only the ones in Section 7. Feel free to drop any of those that don't apply to your company. But don't get smart, buddy. You can't exclude ones that *do* apply to your company and that you're just are too lazy to implement. What is this, the federal government?

2 Normative Reference, or "Up-Selling"

There are a few documents that are referenced in this standard so that when you buy this one, you have to buy the other ones, too. If you think that's bad, wait until 2020, when we start issuing standards with collectible multiple cover designs, foil embossing and limited editions!

3 Words We Changed... Again

Because we screwed up the definitions so bad in the 1987 and 1994 versions of the standard, let's start over.



One final thing. Even though we said we'd make this standard applicable to all kinds of companies, when we say "product" we also mean "service." And we say "product" a lot. Sure, it alienates all those non-manufacturing organizations out there, but we really like the word.

Crap. I just realized that if we had consistently said "product and/or service" every time, we'd have extended the page count on this thing by at least ten... and then could have charged more. I'll bring that up at the next Technical Committee meeting.

Also, when we say "service" we just mean "service." When we say "shall" we mean "must." When we say "must" we're talking about the general odor of the authors of this thing.

4 Quality Management System: The Auditable Parts

4.1 General Requirements

Didn't like the first three sections of ISO 9001? Screw 'em! Nobody can audit those anyway! Consider those like a sweeping Mahler overture, warming up the crowd.

Now comes the fun, though. Sections 4 through 8 are the parts we can write you up on ... er, I mean, the parts that are auditable. Yay!

The first rule is that you have to put your ISO 9001 program in place, document it, and keep it running like a well-tuned Lotus Seven Roadsport . Oh, yeah, and you have to improve it. Not that we're going to ever be able to *prove* whether or not you improve, but whatever.

As for that "process approach" thing, there are a lot of consultants out there who don't know squat about it. Don't listen to them. If they knew what the "process approach" was they'd be on TC176, not sitting in some dim cabin somewhere with a Unabomber beard, a bad tie and a worse stink. This is all you have to do to manage by processes:

- a) Identify all your processes. How you do this is your business. Again, if an auditor comes in and tells you otherwise, tell him to "eat lead, dimplestick."
- b) Once you've identified the processes, make a big map of how they interact. Use those thick magic markers for real effect. Have your kids help with their finger paints. Whatever works, Picasso.
- c) Now you've got to figure out how you're going to manage all those processes. That means you'd better come up with some metrics, which is consultantspeak for "numbers." Figure out a way to know when your processes have wet the bed or when they're purring like a new kitten. You'd be better be able to measure it, 'cuz we're gonna ask you to do that in a few seconds.

- d) Have the boss give you all the resources you need to carry out each process adequately. Heh. Good luck with that one. We just threw that one in because we are sadistic SOB's.
- e) Hey, now it's time to measure the processes against those metrics I mentioned!
- f) What's that? The metrics prove your processes suck? Fix 'em, Einstein! That's what you're getting paid for.

Oh, yeah. If you try to weasel out of this part and "outsource" your processes, you still have to identify them and prove to us you have some kind of control over the child laborers you're using. See? We're one step ahead of you.

4.2 Break Out the Pencils and Wake Up the Scribes

4.2.1 Documentation: Love It or Leave It, But Don't Leave It

So many of you griped about the "big honkin' binder," we got nutty and cut all the documentation requirements out of the old standard... now you only have to write a few itty bitty things! Feel free to thank us by sending us wine at Christmas. Chateau Latour will do nicely.

Nowadays, all you have to write down is this:

- a) A quality policy and objectives (consultantspeak for "goals")
- b) The good ol' quality manual,
- c) The six procedures we still just can't bring ourselves to part with, all of which (coincidentally) are the consultanty ones. You'll have to buy one of the TC176'ers' books to know how to write 'em!
- d) Anything else you want to write about. Go crazy.
- e) All the required records we talk about later.

That's not too bad, right? Man, you're still griping? OK, next time we'll just have you right an essay on Deming. Maybe that will shut you up.

4.2.2 The Ubiquitous Quality Manual

Technically speaking, your Quality Manual can fit on one page now, if you use a really tiny font. That's how much we cut the documentation requirements! Yay!

But you **do** have to have this stuff, at least:

- a) The scope of your quality system, and a pretty darn good excuse for any clauses from Section 7 you've decided not to include.
- b) A list of the documented procedures you've written. Heck, just plug 'em in the manual. We don't care.

c) That big map you drew up in clause 4.1. Make sure the ink dried.

Now in reality, the ISO auditors are going to want to see a line-by-line restatement of the ISO 9001 standard as your Quality Manual, but that's because we've never told them how to audit. Go figure.

So, sure, we've got an army of mindless drones out there asking you why you didn't put a "section 7.4.1" in the manual, but feel free to remind those clods that how you document is your business, and those three bullets up there are the only things required to be in the manual. Watch the steam come out of their ears.

4.2.3 Controlling All Those Documents You Foolishly Decided to Write

Decided to document the heck out of your company? Good boy! That's called job security! Well, there is a down side, of course. Now you have to control all those documents. Argh! Didn't think of that, didja?

To make matters worse, you'll have to write a **documented procedure** on how to control documents! And it had better define how your documents have to:

- a) Be approved (before you release them, dummy!)
- b) Be reviewed and updated occasionally. Blow the dust off, and all that.
- c) Be marked with the changes somehow (try a revision history table... it works!)

Also, you have to:

- d) Make sure you give people the latest versions. Duh.
- e) Make sure the documents are kept clean so people can read them. No coffee stains, goo blobs or smartass comments written in the margins. Let's at least try to appear professional.

Got documents you borrowed from a competitor... er, third party? Guess what:

f) Gotta control them, too.

And finally,

g) Throw out your old, obsolete documents. If you're a packrat and really, really need to keep them around, hide them in an old desk. No, don't do that! Just kidding! Mark them "OBSOLETE" or something.

4.2.4 Controlling All Those Records, Too

You gotta have records because without them, the entire ISO auditing industry would perish and thousands of jobs would be lost. Consider each record your own little way of supporting your nation's economy.

There are a whole bunch of places throughout this standard that call for records, but to make sure you read the whole standard word-for-word, we decided not to do the smart thing and list all the required records right here. Now you'll have to search through the whole bloody document! And you thought we didn't have a sense of humor? Sure we do, it's just a **sick** one!

Where you **do** find our little breadcrumb trail of required records, you're going to have to make sure the records are legible (no coffee stains, right?), identifiable (that doesn't mean a form number, despite what that \$1300-an-hour consultant told you), and retrievable. That last part means don't store them over a pit of ravenous wolves where the auditor can't get to them.

Also, you must have a ... (drumroll!) ... documented procedure on how you plan on controlling these little buggers. Specifically, that means how you identify them, store them, keep them safe, retrieve them, retain them and throw them out when you're done with them.

For guidance on how **not** to control records, contact the auditors at Arthur Andersen LLP.

5 The Big Oxymoron: Management Responsibility

5.1 Management Commitment to Things Other Than Golf and Girls

Yeah, I know no one will ever write a nonconformance against this clause because it's like spitting in your Dad's coffee while he's watching, but we put this in here anyway. You know, just to keep up appearances.

Okay, let me put on a really serious face. Ready.

- a) The boss must take this ISO thing seriously. If he's one of those droogs who's more interested in golfing with his mistress, then you're in trouble. He really needs to get his act together. Probably needs therapy, too. Do whatever it takes to get that guy "on board." Remember, if he's not on board, you're walking the plank.
 - Technically, the boss has to **prove** his heartfelt commitment to quality. You can mull that one over tonight while going to sleep. Can't figure out how to get that done? Start working on your résumé.
- b) The boss also has to write a quality policy (more on that later), and tell everyone in the company how important the customer's needs are. Not the customer's money, the customer's needs. If he doesn't know the difference, you might want to abandon ISO 9001 and take up Colt 45. The malt beverage, not the gun. No workplace violence, now.
- c) The boss also has to set some kind of quality objectives. More on that later... it's a whole picnic in and of itself.

- d) He'll also have to have give the appearance of caring at least a few times a year at a management review meeting, or something like it. I'll get into that in a minute.
- e) The boss will also have to occasionally open the purse strings and provide adequate resources to support the management system. I know, it's like getting a bull pregnant, but you've got to convince him that investment in quality is a good thing.

5.2 Customer Focus, or "Don't Forget Who Pays the Light Bill"

Not sure why we didn't put this in the list above, but another thing: the boss has to make sure the company really "gets" the customer and their needs, and then figures out a way to satisfy them. Remember, it's called "customer focus," not "blurry, greased-lens view of the customer" or "gazing at the customer from across a wooded hillside."

5.3 Quality Policy: Sum Up Everything in Your Own Words, But Use Our Words to Do It.

Hey, remember the quality policy I mentioned? Well, here it is! The boss has got to put his philosophy about business *in writing*. Yeah, this ought to be good, right? Especially since he's barely able to conjugate a verb!

Well, pat him on the head and tell the little Cicero to give it his best shot. At the very least, the quality policy must:

- a) Be somehow connected to reality. That means it should have something to do with the company. A quality policy that says "I rarely wear pants" is not a good idea. "Abandon hope, all ye who enter here," might be more apt.
- b) Restate the company's commitment to quality and improvement. If he balks on this one, remind him about the scrap pile out back.
- c) Provide some kind of philosophical grounding for your quality objectives. So only say stuff you can measure. Something like "our products kick ass" would probably not be the best thing.
- d) Be printed on little cards and given to each employee so that if the auditor asks them, "What's the quality policy?" they can fumble around mindlessly! Actually, it would be better if you actually *taught* everyone the policy so they understood it, but we know talking to those dirty, lower level workers is beyond your job description.
- e) Be reviewed occasionally. Again, blow off the dust.

5.4 Take A Deep Breath and Plan, Stupid

5.4.1 Quality Objectives: The Contemporary Royal Proclamations

I know I said it before, but I feel like saying it again. Sue me.

The boss has to set some kind of goals for the company. They should include goals for quality and product. Remember, "product" means "service," too. See? It's only clause 5.4.1 and we've already forgotten about service organizations!

Make sure each area in the company has objectives. The fun of charting one's failure to live up to expectations should be shared, don't you think?

Those objectives better be measurable, too, buddy. Don't think we won't check up on you!

5.4.2 QMS Planning, Or Something Resembling It

This clause suggests that you should plan your quality system **before** you implement it. Right. Like some new startup company is going to put ISO 9001 in place first, and then open shop.

Well, now that you've already started selling your stuff, you might as well plan after the fact. In order to plan it properly, make sure you:

- a) ... plan using the process approach and objectives. Obviously, I can't repeat myself enough.
- b) ... update the quality system if the company changes. Boss busted for an illegal Caymans account? Make sure you update the org chart! Company diversifying into manufacturing of crystal meth? Make sure your records procedure has adequate controls to prevent the cops from finding out!

5.5 Fun With Big Words: Responsibility, Authority and Communication

5.5.1 Responsibility and Authority, Separated At Birth?

Machiavelli wrote, "It is much more secure to be feared than to be loved." While you ponder the relevance of that, let's throw in this requirement:

The boss has to be sure to give everyone both the responsibility **and authority** to do their jobs. Insert laugh track here.

5.5.2 Management Lackey

In order to facilitate the third-party auditing process, and to make sure that auditors don't have to deal with too many of those unwashed workers in the back, the boss has to assign someone as the quality system "Management Representative." Besides being a snappy dresser, the Management Rep must:

- a) Ensure that the quality system processes are established, implemented and maintained. That means if the company flunks the audit, the boss has someone to fire. Sort of does away with that whole "management commitment" thing we talked about in clause 5.1, doesn't it?
- b) Write lots of reports with colored graphs for the boss, so he can see how badly the company is really doing. Use small words.
- c) Cheerlead, cheerlead, cheerlead. Rah rah!

5.5.3 Internal Communication or, Failing That, Internal Combustion

For most bosses the definition of "internal communication" is responding to their stomach growling at 11:00 in the morning. Well, now he has to make sure that there are formal processes for communication within the organization. No, the stupid "suggestion box" with the seven years' of dust on it doesn't cut it.

And when the auditor walks around asking people about ISO 9001, they'd darn well better know what we're talking about!

5.6 Management Getting Together Once A Year To Make Sure the Liquor Cabinet in the Conference Room Hasn't Been Tampered With.

5.6.1 Management Review: General

You've got to figure out a way to get the boss to look at all those numbers you've been collecting for the past year. Have a meeting! You will note that no where in the ISO 9001 standard does it prohibit you from having the meeting at a girlie bar or on the back nine! Heck, that's where we wrote most of this standard from!

Yep, the boss has to periodically --- you get to define that! --- review the quality system. That review must include some suggestions for improvement.

And, yes, you have to keep records. The back of the Hooters napkin will do nicely.

5.6.2 Review Inputs: Things You Need to Legitimize the Meetings

Because the gang here at TC176 was feeling particularly caffeinated the day we wrote this part, we really got into the spirit of imposing our will and included this list of mandatory management review requirements!

At the review, you must look at:

- a) How bad your audit program is screwed up.
- b) All those customer complaints piling up near the fax machine.
- c) How your processes are doing, and how your product (remember, that means "service" too!) is doing

- d) The status of the corrective and preventive action system --- more on that later!
- e) Stuff you didn't finish at the last meeting. Procrastinator!
- f) Changes that could affect the quality system or, more importantly, the contract you have with your registrar.
- g) Suggestions for improving the company... but nothing requiring any effort on your part.

5.6.3 Review Outputs: Things You Need to Prove You Actually Had A Meeting

You need to get **something** out of that management review debacle. Preferably it should be decisions and "action items." I love that last one. Sounds so James Bond! Those decisions and action items (cool!) should be related to:

- a) Improving the quality system (try to do this without admitting you screwed it up to begin with.)
- b) Improving the product (remember, that includes "service!" --- now you're starting to see why only 5% of ISO 9001 registered organizations are service companies!)
- c) Resources. One exception: if the boss blurts out his desire to lay off half the workers so he can buy a Maserati, you might want to leave that out of the minutes.

6 Resources: Things That Drain Your Finances

6.1 Trick 'Em Into Providing Resources

You can't get what you don't ask for. Even your boss, as omnipotent as he is, isn't clairvoyant. Besides, in order for him to read minds, you'd have to actually have a mind, and --- face it --- you weren't hired for your smarts.

If you need resources, you'd better figure out what they are and then get the boss to provide them. That includes stuff needed to:

- a) ...implement, maintain and improve the quality system. Start small. Maybe a jar of free peppermints at the receptionist's desk.
- b) ...boost customer satisfaction. Technically speaking, this could include sending cheap beer and free cigarettes to the customer's hotel room. Whatever works!

6.2 Human Resources, or "Slaves & How To Control Them"

6.2.1 Sub-Human Resources

While I personally like the term "human capital," the other guys at TC176 thought that was a bit impersonal. So instead we called this clause "human resources." Basically we want you to make sure the people you hire are competent. Now, we understand that competence is defined as "those skills and abilities which do not exceed those of one's manager," so you'll have to determine what competence means for each position in your specific company. Hiring knuckle-dragging hunchbacks to do delicate brain surgery might not be any more wise for you then it was for Frankenstein.

6.2.2 Three More Big Words: Competence, Awareness and Training

Hired those hunchbacks anyway? Well, now you'll have to train 'em. Here are the rules:

- a) Figure out what they have to do.
- b) Train them on it.
- c) Evaluate how they're doing after training.
- d) Beat the performance out of them. No, just kidding. Make sure everyone knows how their work affects the customers, and that if they screw things up it's not just their jobs on the line, but the jobs of the customer's equally hunchbacked knuckle-draggers. Oh, your people should know their quality objectives.
- e) Gotta keep records of training. Keep them separate from the personnel file so the auditors don't see all the harassment lawsuits your employees have going against you.

6.3 Infra-what?

Nobody on the Technical Committee knows how the word "infrastructure" got in here. We think it was a bad translation of some French word, but no one's sure. It's like the word "paradigm"; everyone uses it, but nobody knows what it means.

Well, we think "infrastructure" has something to do with making sure that you give workers:

- a) A place to work, preferably with air, lights and running water,
- b) Equipment to work with, to justify those capital equipment deductions,
- c) Other services like candy machines, "Employee of the Month" parking spaces and bathrooms.

We could be wrong, though.

6.4 Touchy Feely Work Environment

Thought we already talked about this in the last clause? So did we! You know, we argued over this clause for weeks in Budapest! Well, not every piece of coal turns into a diamond.

Suffice to say that you have to provide an adequate work environment. Remember, though, that you get to define what is "adequate." After all, Papillon's prison managers felt a tin box baking in the hot sun was an adequate working environment!

7 Product Realization, or "Making Stuff"

7.1 Planning of Making Stuff

Wow! We're in section 7 already! Remember, you can exclude any clauses in this part that don't apply to your company. Or your warranty agreements.

Yeah, I know we should have called this "Product & Service Realization," but most of the TC176 guys are former manufacturing executives, so waddya expect? Maybe in the next ten years we'll get it right. Or not.

Anyway, as part of planning of product realization, you'd better develop the processes needed, like we've said umpteen times already. Also, you have to:

- a) Come up with objectives and requirements for the product. If you can't, go on the internet and find out what your competitors are doing.
- b) Create processes and documents for the product, and make sure you get the necessary resources. I know, ... broken record.
- c) Figure out how you're going to inspect the stuff. Or measure the process instead. Or test the finished product. Whatever, just look busy.
- d) Keep records so that you can prove the processes work and the product passed inspection. This will help when the customer asks you why his parts arrived broken, and you know darn well his receiving guy did it.

How you do all this is your business.

7.2 Customer-Related Gobbledygook

7.2.1 Translating Customer Requirements into Human

Remember the customer? That's the guy who pays you. Okay, **now** it's coming back to you....

Well, before you go building anything for him, you should at the very least:

a) Figure out what he says he wants,

- b) Figure out what *he thinks* he wants,
- c) Figure out what the government wants you do to with what he wants because, you know, they have to have a say in everything.
- d) Figure out how the hell you're going to make it.

7.2.2 Reviewing Their Idiotic Needs

Got all the requirements? Now you have to review them! This means that your Sales Team can't go around promising the moon when you're company can't even break two rocks in half. Get those Harvard-educated, smarmy goons in line!

No, once you've got the requirements written down, you actually have to look them over. Basically that's so you can be sure:

- a) You've really got everything written down after all, and haven 't forgotten something important.
- b) If the customer arbitrarily subtracted a few hundred bucks from the price you quoted, you can call him out on it.
- c) You really **do** have the ability to make the stuff, and your smug Sales guys weren't lying this time.

Just to be safe, keep records of all this.

Now sometimes the customer won't actually give you anything in writing. Hey, they know the pitfalls of putting stuff in writing, too! Well, in those cases, you'd better write it down and get a confirmation before you start work.

And because the customers are probably suffering from Adult Attention Deficit Disorder, sometimes they will call you up and change things on a whim. If so you've got to run around and change all the documents in the shop. Wear good sneakers.

7.2.3 Customer Communication, or "You Can Call Him An Asshat *After* You Hang Up."

If you thought talking to your employees was rough, just imagine having to talk to the customers! Yuck.

Well, choke it down and just do it. Make sure you have ways to handle the following types of customer communications:

- a) Product questions.
- b) Order questions.
- c) Complaints, grunts, whines, noisy exhalations, snorts, and other bodily sounds born of desperation.

7.3 Design and Arrested Development

7.3.1 Planning Your Design Before You Break Out the Colored Pencils

Did someone in the company decide they can actually design stuff? Yikes, you **are** in a bad situation!

Well, you might as well bite the bullet and design it right. You'd better plan your design activities first. This means:

- a) Figure out all the steps necessary for designing things
- b) Figure out how to review the design at each step before the it all hits the fan
- c) Figure out who's responsible for what. You don't want that new 13-year old CAD engineer designing your rocket engines. Unless he's the boss' nephew.

Make sure everyone in the design activity knows what their responsibilities are, and who they answer to. Designers are notoriously ill-tempered and have poor people skills. Try to manage around that.

7.3.2 D&D Inputs: Stuff You Need to Act Like a Professional Engineer

Here's what you'll need to answer, at a minimum, to get started in designing:

- a) What's the darn thing supposed to do?
- b) What kind of legal or government trouble awaits you if it blows up?
- c) What did the screwups from your last design teach you?
- d) What other things are you forgetting?

Once you've answered these questions, review them to make sure they're complete and don't conflict with each other. If the list of requirements includes "must sink like a stone" and "must float like a feather," you might be in trouble.

7.3.3 D&D Outputs: Stuff You Need to Make Your Desk Look Busy

"Outputs" is a fancy way of saying design drawings, or some other kind of written thingamajig. How you do these is your business, but they do have to be approved before giving them to anyone for building. Afraid to sign off the drawings? Use someone else's name! Failing that, use "Alan Smithee." That's the name Hollywood uses when the director quits the movie after realizing his work was crap to begin with.

Those drawings and design plans had better:

a) Address all the requirements from 7.3.2 above.

- b) Define what's needed for purchasing, production and service provision. (Hey, how did "service provision" get in there?)
- c) List the inspection and test acceptance criteria, so your QC guys can have fun later telling you how much your design sucks.
- d) Include details on what's needed for "safe and proper use." Aww... see? We care!

7.3.4 Design Reviews: Get Ready to Mock The CAD Geeks

Better review those drawings and plans before giving them out to the shop guys! You may want to laminate them first, too; don't want them coming back with shop goop all over them.

Just in case, you'd better make sure:

- a) You haven't gotten off on a tangent and designed a hotel for someone asking for a birdhouse.
- b) Figure out where the designers screwed up, and fix it.

Make sure you actually involve the designers in the resulting beatings. And keep records. Of the design reviews, not the beatings.

7.3.5 Design Verification: Does It Look Like A Duck?

By "verification" we mean comparing the drawings and plans against the original list of requirements. This is a paperwork exercise. Don't cut yourself.

Keep records of this, too.

7.3.6 Design Validation: Does It Sound Like A Duck?

By "validation" we mean comparing the finished part (usually a prototype) against the original list of requirements. We intentionally selected "verification" and "validation" as words because they sound similar, and consultants will confuse them all the time. Our dislike of consultants is a type of Freudian self-loathing.

You can thank us for not using the words vindication, vacillation, visitation and vaccination, all of which were on our short list.

Keep records of this, too.

7.3.7 Controlling Design Changes: It's A Duck, but Dammit, It Was Supposed to Be A Horse!

Your design stunk after all, didn't it? Change it! But make sure the changes are reviewed, verified and validated just like the original ones. If you've already shipped product from that bad design, do two things: (1) contact the customer and tell him, and (2) contact your lawyer.

Keep records of this, too. Darn, that's a lot of records! Remember, each record is a job for someone, somewhere!

7.4 Purchasing: Shopping Sprees Without the Guilt

7.4.1 How to Spend the Boss' Money

Ya gotta spend money to make money, they say. At some point you're going to have to buy something. Here's how we want you to do it.

If you do buy stuff, make sure it's what you wanted. There's nothing worse than ordering wine casks with bungholes and getting the opposite.

Make sure your suppliers aren't complete morons. Evaluate them ahead of time. Ask them if they are ISO 9001 certified! If not, tell them how great this standard is! Tell them to buy books by TC 176 members! Get them to subscribe to quality magazines! Tell them to start Six Sigma training! Talk to them about Lean Manufacturing, Agile Manufacturing, maybe even Oh-So-Slick Manufacturing! This way, not only does ISO 9001 ensure its ongoing survival, so do all the consultants and auditors! Yay!

Hey if you really want to have fun, meet with your suppliers face-to-face, put on a really creepy thousand-mile stare and say, in a monotone voice, "You *will* become one of us... join now or be destroyed."

When you're done terrorizing... er, **evaluating** your suppliers, keep records of those evaluations. Every auditor is going to ask for an "approved vendor list," even though this isn't mentioned in our standard. Might as well make one anyway, seeing as how we have lost all control over those baboons.

7.4.2 What to Write on Purchase Orders

Guess what? You know how you have to be clear on finding out what your customers want from you? Well, what goes around comes around. You've also got to be sure to tell your suppliers what **you** want. They can't read minds any more than you can, Karnak.

That means purchase orders that actually say more than "Hey, Sal, send me three of those blue things!"

In addition to the basic information like quantity, type and a description of what you want, your PO's had better have:

- a) Any special approval requirements your QA team dreamed up, or other annoyances like procedures, processes and equipment. Want them to make the parts on a gold-plated press brake and ship them in delicately laced silk bags? Better tell 'em so in the PO!
- b) Any weird requirements you guys thought of for the people working on your parts at the supplier. "You must be trained in Esperanto while inspecting our parts" is always a good one.

c) Quality system requirements, like ISO 9001 certification. Put it on the PO, so they *have* to become certified! Resistance is futile!

And review the darn things before you send them out. A PO that goes out with bad information is *your* fault, not the supplier's, dimbulb. Get a clue!

7.4.3 Make Sure You Get What You Ask For

Once you've received the stuff from the supplier, you have to check it because --- let's face it --- they're all criminals. Each and every one of your customers is trying to rip you off. Even if they are ISO 9001 certified, you'd better check it. Maybe twice.

That means inspect it at receiving, of course.

And if you try to dodge the whole bullet by telling the supplier to inspect it themselves, sorry pal --- no dice. You'll have to spell that out in the PO, and even then you're still responsible if they send you crap.

7.5 The Dark Arts: Production and Service Provision

7.5.1 Controlling the Dark Arts

Apparently the day we worked on this clause someone at TC176 awoke from their daze and snuck "service provision" back in. How'd that guy get in here? Call security!

Well, don't worry; the standard didn't start making sense all of a sudden because one guy came to his senses. We argued for months over what this clause meant, and lemme tellya, I lost a few bucks on the pool we had going. I thought it had something to do with thermostats!

Basically, it's the old "process control" clause from ISO 9001:1994 with a different name. That's because back in '94 we really didn't know what the heck "process control" meant. But now we do! Lucky you!

So, to control your work, you'd better do everything under what we call "controlled conditions." Menacing, huh? Here's what it means:

- a) You must provide your people with an adequate description of what they are making. Routers, prints, work orders, etc. All that stuff.
- b) You must give them work instructions where necessary. Typically this means where if you didn't have them, the parts (or service!) would suck. But if you really want to keep your job, you'll write a work instruction for every little thing. Like a work instruction on how to write work instructions.
- c) You must provide suitable equipment. That means it actually works.
- d) You must provide your inspection and test people the proper inspection and test equipment. Asking someone to measure a 64th of an inch with a two paper clips and some bubble gum doesn't cut it.

- e) You must actually conduct inspection and testing, although now we call it "measuring and monitoring" so we don't **sound** so inspection-fixated. Don't believe it for a minute, though!
- f) You must control "the implementation of release, delivery and post-delivery activities." That sounds mystical, and it really is (saying it backwards invokes Pazuzu, and you remember what he did to Linda Blair!) But all it means is you have to control what happens to the parts during shipping and when it gets to the customer. At least as much as you can, given that the customer probably has a drunk forklift driver just like you do.

7.5.2 Validation of Processes, or "How To Control That Which Cannot Be Controlled"

Remember the "special processes" of 1994? They're still here, confusing the heck out of everyone. Yippee!

Let me try to put this into some kind of language everyone can understand. A "special process" is a process that results in something you can't really measure or test unless (1) you have to send it to the customer for them to install and use, at which point it's too late because you've already shipped it, or (2) you gotta blow it up to test it.

So basically, it's something you just can't check before sending it out. That means the old inspection and test method doesn't work, so instead we're asking you to go extra heavy on controlling the process, so you stand at least half a chance in getting a good part out it.

Or maybe one quarter chance.

We call this extra control "validation," which is not to be confused with what we called "validation" under the Design & Development clause earlier. That's something completely different, and has nothing to do with blowing things up.

In order to validate your special processes, you have to:

- a) Figure out how you're going to review and approve the process in question. Heck, write it down while you're at it!
- b) Approve the equipment and personnel. There's nothing that instills more confidence than writing down some phony approvals on a piece of paper!
- c) Figure out how exactly you're going to conduct the process steps, usually by writing down instructions that cannot be disobeyed. Get out the whip.
- d) Figure out what kind of records (remember: auditor jobs) you need.
- e) Figure out how you can periodically revalidate the process, because going through this just once is not nearly enough fun.

Still don't get it? That's because you're not the brightest bulb on Broadway, my friend. But don't let that dissuade you from seeking a promotion. The corner office is often the best place to hide the most lackluster employee.

7.5.3 Identification and Traceability: Just Number Everything

Now here's a blast from the past! A clause that actually made it through relatively untampered from 1994!

Yep, even in the 21st century you still have to make sure your parts and raw materials have tiny numbers inscribed delicately on them. Hire one of those guys who can write a whole Bible on a grain of rice to do it!

Wait! There's more! Not only do you have to identify every piece of everything lying around that mess of shop of yours with a part number, you also have to identify it as to whether it's good, bad or just plain ugly.

And heaven help you if the customer requires you to put serial numbers on parts or to have some other "traceability" methods in place. Then you'd better come up with some way to do it, and be able to know exactly when part 12589399298-23477324-4883-G shipped.

7.5.4 Customer Property, formerly "Lost and Found"

Sometimes the customer will come visit the plant. A few times he may even leave his wallet in the lunch room. Feel free to keep it, because that's not what this clause is talking about!

Instead, we're talking about customer supplied material or customer supplied equipment. If you've got this kind of stuff in use, and assuming it's not because you stole it in the dark of night, then you have to control it as if it were a baby. Keep it warm, protected and safe. And if you break the baby ... er, I mean the customer property, you have to tell the customer. Only fair, right?

You also have to identify it as customer property so that no one accidentally uses it for the wrong customer. Are we overstating the obvious? Sure we are! We stick to our strengths.

7.5.5 Preservation of Product

Forget those darn service industries, we're back into full-blown "manufacturing only" mode! This is the part where we talk about "preservation." Not "self preservation," mind you --- that was section 5.1.

No this is the preservation of *product*. We used to call this clause "Handling, Storage, Preservation, Packaging and Delivery" but that was a mouthful even for us blabbersnoots. Instead of listing the types of preservation and giving specific examples, the guy who came up with this clause got lazy and reduced it to a single sentence: "Preservation shall include identification, handling, packaging, storage and protection."

Boy, he must have had one hell of a hangover that day. I know I did!

So, yes, you must preserve your product, including any subassemblies, smaller parts, bits and pieces, or things that have fallen off earlier. How you do it is your business, but whatever it is had better impress that auditor.

7.6 Control of Monitoring and Measuring Devices, or "Putting Sticky Labels on Anything With Numbers on Them"

This is the part about calibration. Don't let the name fool you.

If you're going to take our advice and ignore Deming, you're going to need lots and lots of equipment to do all those redundant inspections. That means lots of calibration, too. Another boon for the local economy.

Now, I know you're anxious to get started, but before starting any inspections and tests you need to be sure you actually can **do** the inspections and tests. This means that you've checked to make sure you have the right equipment and that the boorish, giant-thumbed goons in QC can actually work the darn things.

Once you're really sure you have everything you need, then you can start the fun we call "control of monitoring and measuring devices!"

You have to:

a) Calibrate your equipment at intervals you define, and those intervals had better make sense. None of this "calibrate once every time Halley's Comet passes." The interval must be based on common sense, or (since we know you don't have any common sense) previous calibration results. The standards have to be traced back to some certified standard, so in the US that usually means NIST. NIST stands for "National Institute of Stuff you Trace back to." Easy.

If you can't calibrate the device --- meaning it can't be calibrated because the equipment doesn't allow it, not because you're an inept clod with all the coordination of a drunk in an earthquake --- then you have to figure out some other way to "verify" the device. Usually that means comparing against a "known good" part. You probably don't have any known good parts lying around, so borrow one from a competitor. Either way, write down you homegrown verification method. It makes it easier for the Consumer Affairs people later on.

- b) You also have to adjust, re-adjust and re-re-adjust the tools as needed. This is a nice way of saying, "Go ahead and fiddle with it!" Remember the old axiom "If it ain't broke, don't fix it?" Well no one here ever heard of it, so we give you full permission to tinker with your expensive tools.
- c) Those tools had better have a sticker on 'em, too. That's because ISO has a deal with the sticky label industry. But it's also good to label the devices so your operators know if you've calibrated something or not. Presumably it's so they can report the tool if it's either missing a sticker or if the date is overdue; but usually this just means it gives something for the ISO auditor to look at in order to show his competence. Watch as he strokes his chin thoughtfully as he looks at the labels! What a pro!
- d) Once you're done fiddling with all the little dials, knobs and screw adjustments, make sure no one else horns in on your fun and cover them over with more sticky labels. You have to make sure no one else can come in and re-re-re-adjust your re-re-adjustments.

e) The tools also have to be protected from damage or deterioration. Did they come in a nifty wood box? Store 'em in there. Did they come in a plastic case? Use that. Did they come in an air mail package with no return address and there's a strange ticking sound coming from inside? DUCK!

Oh, because despite all your best efforts you'll probably find a tool that craps out at some point or another, you need to go back and do what we call a "Holy Moley!" report. This is where you go back and do a study on how many parts were shipped after some dolt used that broken tool despite your best efforts. Trust me, when you see how many product recalls you'll have to send to the customers telling them all your measurements for the past year have been off, you'll be shouting "Holy Moley!"

Of course, keep lots of records of calibration, too. If you're relying on the records from your third-party calibration house, you'd better go over them with a fine tooth comb. They are used to screwing up little things like your tool's serial number, its previous calibration state, and the signature of the guy who calibrated it. Come to think of it, that latter point is probably intentional.

If you want to go high-tech and use software to monitor and measure stuff, you're not out of the woods. You'll have to come up with some means of determining if the software really works in accepting good stuff and rejecting bad stuff. You may have to check this periodically, too, because we all know how software likes to "go bad" over time. Snort.

8 Measurement, Analysis & (HAH!) Improvement

8.1 General

The US Army calls a "Section Eight" the discharge they give you if you are crazy. I know that because a few of the guys on TC 176 told me from personal experience. I will let you muse on the irony of numbering the old "inspection and test" clause as I proceed.

Actually, under ISO 9001:2000 this part is more than just inspecting and testing. It's also about actually doing something with the data you get. Took us 13 years to figure out that we had never asked anyone to read the data we were demanding you get! Continual improvement, or negligence at the start? You decide.

Anyway, you now have to monitor, measure, analyze and improve the processes you've identified in order to:

- a) Show your product actually meets the customer's and other requirements, and not the requirements of your alcoholic Sales Manager.
- b) Show your quality system actually conforms to everybody else's requirements.
- c) Continually improve your quality system, because you hired a really lame \$1300-an-hour consultant and your QMS will need all the improvement it can get.

This includes figuring out what kind of "statistical techniques" you will use and how you will use them. We added this part because for every American Society for Quality "Six Sigma" book sold as a result of this mention, we get 5% of the profits. To our personal Swiss accounts, no less.

That, my friends, is why ISO is in Geneva.

8.2 Monitoring and Measurement: The Fastest Path to Feeling Inadequate

8.2.1 Customer Satisfaction, and Lack Thereof

You know it, we know it, and they know it. Customers are never satisfied. They are greedy, selfish goats only interested in ripping you off. But you have to put on a brave face and pretend to care. Pretend you're a candidate running for political office, and you'll have the act down pat.

You have to keep an eye on how the customer *perceives* your organization. That means you can't just measure rejected parts or complaints. You actually have to *ask them* what they think, and pretend that you really care about what they have to say.

Sure, that *may* mean customer surveys. Good luck getting those illiterate dummies to fill them out, though. Instead, you may have to get tricky and do phone interviews or something. Include a customer satisfaction survey with a \$50 bill and a box of Godivas. Do whatever it takes. But keep the data and use it to figure out if your customers are actually happy with you, or ready to key your car next time they get the chance.

8.2.2 Internal Auditing: Share the Love

The fun of auditing should not be limited only to those who have been fired from previous employers and gotten re-hired by RAB-accredited registrars. No, you too should share in the magic that is auditing.

That means you will have to conduct *internal* audits. This does not mean a self-directed full cavity search, but an audit of your company's quality system. They have to be scheduled, too, and that doesn't mean the same day every year. You need to schedule them in accordance with how important the audited activity (process!) is, previous audit results, etc. The standard doesn't say this, but all the registrars out there expect you to audit your entire system at least once a year. Yes, registrars make up their own requirements, I know. What can we do about it? They're totally out of control!

Your audits must:

a) See if your quality system conforms to all the requirements of your internal procedures, customer requirements, and all other requirements. Except financial ones. And health and safety. And labor laws. And insurance law. Heck, just audit the ISO requirements. This usually means auditing using a lame-o ISO 9001 checklist. Our motto at TC176 is, "Forging Ahead Into the 16th Century!" b) See if your quality system continues to be effectively implemented and maintained. This one is a good idea because most companies forget about their ISO program about thirty seconds after getting their certificate.

Your audits must include the audit criteria, scope, frequency and methods. That means what you intend on auditing, what you *don't* intend on auditing, how frequently you *don't* intend on auditing, how you plan on auditing and how you *don't* plan on auditing. Ouch, my head hurts after that one.

Guess what? Just to keep it all clear, you have to have a **documented procedure** for your auditing program. See? Only the consultant-themed concepts of ISO 9001 need procedures! As failed consultants, all we 176'ers just couldn't part with those.

Your auditors must be impartial, objective. That means you can't audit your own work. That means you must hire expensive third party consultant companies to do your internal auditing. You might want to hire an auditor from the same registrar that gave you your certificate, but pay him under the table. It's not only legal, it ensures objectivity! Well, sort of.

Have an audit finding? Write it up, bunky! Then make sure your management gets a copy and that they actually fix it in a timely manner. What "timely" means is up to you. Measure your responses in dog years for all we care!

Then, someone darn well better go behind those managers and verify that they actually fixed what they said they fixed. Managers didn't get promoted by actually doing anything, after all, so you will have to keep on them. Threaten to tell their wives about their girlfriends (or vice-versa) if they don't *really* fix the problem.

8.2.3 Monitoring and Measurement of Processes

Not happy to make you inspect and measure product alone, now you have to inspect and measure the intangible concept of a "process!"

Yes, now you have to figure out how to measure and monitor each of the processes you identified in 4.1 so you know when they are plopping out garbage. Furthermore, your M&M methods should provide evidence of your processes being able to do what they intend to. In English, that means that if your process is intended to "inspect parts," that you actually have data that shows you can find a bad part when one inevitably gets through the system. In your case, maybe you should just measure the *good* parts.

And if a process doesn't work, you'd better take some kind of corrective action to fix it and to make sure the product is still ok. If you don't, the auditor will give you such a slap!

8.2.4 Monitoring and Measurement of Product

Here's the old "inspection and testing" clause, all fresh, dressed up and ready for the opera!

You still have to "monitor and measure" (AKA "inspect and test") the product to make sure you are meeting requirements. You will note that we offer no solutions whatsoever for you service companies out there on how to implement this clause for "monitoring and measuring service results." Tough luck!

Such activities must be done wherever you think it makes sense to do so: inbetween process steps, prior to packaging, during smoke breaks.

Better keep records of the results, too, so everyone in the world can audit them. That record had better have the name of the guy who signed off on the parts, too, so we have someone to blindfold and shoot in the chest when the tires fall off the SUV's.

I know you're an Anxious Annie, but you **must** do your inspections before you actually ship the product, unless you can sucker the customer into signing a waiver or something. Good luck with that!

8.3 Control of Crap

Now here's a clause where service companies really get alienated! And it serves them right, too, for not making anything a person can touch or feel! Weirdos!

Got bad parts? Join the club! This whole standard is one big nonconforming product!!

When you **do** find a bad part you'd better make sure you don't ship it. To control it, you have to have one of those famous six **documented procedures**, too.

Here's how you have to handle your "nonconforming product, or (as we like to call it) NCP:

- a) First, take action to eliminate the detected nonconformity. If you find out the nonconformity was operator error, eliminate the operator. If you're not located near a deep, secluded lake, you might want to keep a big dumpster handy for this activity.
- b) Or, you can get the customer to sign off that he will take your bad parts anyway. This is always preferable, because getting a signature is easier than fixing a part. Of course, enough signatures and the customer will eventually take his business elsewhere, but that's not your problem, is it?
- c) Finally, you have to take some kind of action to make sure the bad parts cannot be used for their original intent. That usually means putting it in a scrap bin or stepping on it or something. Get a sledgehammer and have fun. It's good therapy.

Now, as you well know, keeping a history of your failings is what ISO 9001 is all about. So, in that spirit, you have to keep records of the bad parts, what went wrong with them, how wrong they were, and any waivers you managed to squeeze out of your customers.

If you have the stones to fix your mistakes, good for you! You're one step ahead of the airline industry! But you will have to reinspect or reverify those fixes, just to make sure you didn't actually make it worse, which is always a likelihood.

If you, like the majority of big auto makers, find out about a bad part after you've already delivered it and the consumer has strapped a baby into it, then you have to take certain action according to what might happen. That can mean a letter to customers, product recall, or hari-kiri. Whatever works for your personal temperament.

8.4 Analysis of All The Numbers We Made You Take So Far

Now you've gathered a lot of data during the course of this ISO 9001 implementation. Unlike what we do with data here at ISO --- ignore it entirely --- we require you guys to actually "analyze" it. What does that mean? I'm not sure, not having ever done it, but here's what I've heard other people say:

It means you have to review it for possible improvement opportunities. In other words, does the data tell you where you suck? Good, now figure out how to suck less.

Specifically, you must review data related to:

- a) Customer satisfaction, and lack thereof
- b) Product conformity, and lack thereof
- c) Process trend data, to show your control over processes or lack thereof
- d) Supplier performance, or what we call "professional malpractice"

Remember, the relationship between your inability to communicate effectively and the importance of colored charts is well documented.

8.5 Improvement: The Undiscovered Country

8.5.1 Continual Improvement, or "When You're the Worst In Your Industry, You Can Only Improve."

Because a broken record hardly begins to describe what we've been doing here, let's repeat ourselves at the expense of redundancy --- or repetition, too.

You have to continually improve your management system through iron-fisted tyranny (the Quality Policy), management by unrealistic targets (objectives), self-preservation of the QC department (internal auditing), extreme mental gymnastics (analysis of data), effective use of your Company Gripe System (corrective or preventive action) and an occasional meeting where the President shows off his new tie tack (management review.)

8.5.2 Corrective Action: The Suggestion Box Gone Amok

Every company has a suggestion box filled with a great wealth of free suggestions submitted by earnest, dedicated employees who are best able to find problems before they turn into bad product or service. Unfortunately, the suggestion box is

usually located behind that huge, noisy compressor or positioned right over the shredder. It's a placebo, after all, dreamt up by that HR Director you fired last year for smoking dope in the parking lot.

Well, the friendly gang here at Technical Committee 176 decided that the suggestion box needs a greater role in the quality management system. How did we come up with that idea? One of us got hungry and broke into the TC176 suggestion box by accident, thinking it was a candy machine. You wouldn't believe the stuff we found in there! Fifteen years' worth of submissions! Suggestions from big companies like IBM and Siemens! Suggestions from other TC176'ers who are long since gone! Suggestions from MIL-Q-9858 users, from ASQ members and industry professionals! Why, the information on all those little tickets was invaluable!

Unfortunately, one day we lost power in the meeting room and had to burn most of the tickets just to stay warm. The rest were eaten in order to stave off cannibalism.

The one suggestion we *did* keep, though, was the one that said "make a suggestion box program part of ISO 9001." So we did! And this is it!

As a result, you have to try to find your internal problems and eliminate the causes of those problems. Of course your responses need to be (as we say) "appropriate to the effects of the nonconformities encountered." Meaning that tarring-and-feathering the CEO probably isn't the solution you should employ, even though it would likely solve all your problems in one fell swoop.

By the way, you'll need a **(ta-da!)** documented procedure for your corrective action program. In it, you must:

- a) Tell how you plan on reviewing nonconformities when you do find them, and that has to include all those customer complaints you've made a career out of ignoring.
- b) Figure out the "root cause" of each problem. Again, keep the boss out of this, for your own sake.
- c) Figure out if the problem needs some kind of action to prevent if from happening again.
- d) Figure out what you're going to do to fix the root cause and how to prevent the problem from ever happening again. Flamethrowers are available from military surplus stores.
- e) Keep records of everything done, said and inferred.
- f) Review the action taken afterward, to make sure it actually worked to fix the problem and didn't cause the North Wing of the building to sink into the ground.

If you fail the last part, you can always write a Corrective Action Request to have the North Wing dug up. That's the beauty of this program! Even if you turn a

mistake into a disaster, you always have the ability to turn the disaster into Armageddon! So long as you have records that you *tried* to fix it, you're golden!

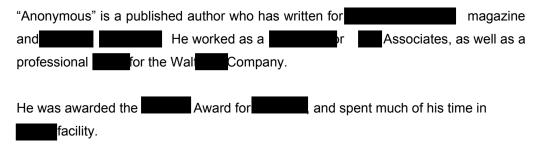
8.5.3 Preventive Action: The Lost Art of Divination

Fixing existing problems is hardly intrusive enough, so we've decided that your management has to try to fix problems that haven't even happened yet. You know what this means... tarot cards.

Failing that, you need to have a **documented procedure** on how you plan to:

- a) Figure out what's going to go wrong before it does.
- b) Figure out if your divination requires action, or if it's just daydreaming brought on by that ever-diminishing bottle of Cutty Sark in your drawer.
- c) Figure out what to do to fix the problem that hasn't happened yet.
- d) Keep records of the whole maguffin.
- e) Review the actions taken to avoid the North-Wing-is-a-crater-now scenario mentioned earlier.

ABOUT THE AUTHOR



He is currently working on a set of additional editions of this book, including a pop-up book version of *EYESORE 9000* for those companies using illegal child labor, and a Braille version for the blind (which will obviously have to be re-titled.)

He lives in with his wife and their two children, and dog named Jack West, to whom this work is dedicated.