

DUST

PART 2



The web site www.cooperativeresearch.org has the following description of the USGS dust analysis exercise, as reported to the St. Louis Dispatch:

On the 17th September 2001, US Geological Survey (USGS) scientists Gregg Swayze and Todd Hoefen went to New York to obtain samples of dust fallout from the WTC collapse. They collected 35 dust samples from a variety of locations around ground zero. This was to complement an airborne spectrographic analysis being carried out by the AVIRIS system. Dr. Roger Clarke, the head of the AVIRIS systems, told the St. Louis Dispatch, *“The ground samples gave us up-close, specific information on specific points.”* On September 19 they transmitted their data to the USGS office in Denver for analysis.”

“Tests revealed the dust to be extremely alkaline with a pH of 12.1 (out of 14). [St Louis Post-Dispatch, 2/10/02] and that some of it was as caustic as liquid drain cleaner. *“We were startled at the pH level we were finding,”* Swayze adds. *“We knew that the cement dust was caustic, but we were getting pH readings of 12 and higher. It was obvious that precautions had to be taken to protect the workers and people returning to their homes from the dust.”* Sam Vance, an environmental scientist with the EPA, sends the results to officials at the EPA, the NY Health Department and US Public Health Service.”

What Could Have Caused The Dust To Have Such A High pH

i.e. Be More Caustic Than Drain Cleaner?

It is not possible to measure the pH of a dry substance. The high pH readings the USGS obtained were actually measured by putting the dust in water first and then seeing how alkaline or acidic the solution became. On the site, which is likely where pH tests took place (*if you’ve ever tested your pool pH you might know how easy this is and it seems logical and plausible that pH testing was done on site*), this moisture would come from the hands, skin and lungs of rescue workers – and the people of New York – and all of the moisture in the air, carrying the dust.

The fact that such high pH was measured means that the concrete dust either contained or had been turned into a strongly caustic or alkaline reagent by whatever it was subjected to when the towers collapsed.

How Could This happen?

Dry cement powder is comprised of 64% Calcium Oxide (CaO). When this is combined with water it forms an alkaline solution of Calcium Hydroxide or $\text{Ca}(\text{OH})_2$, similar to “drain cleaner” which is Sodium Hydroxide. In ready to mix cement and concrete, the Calcium Oxide is combined with other oxides. When water is added, the CaO turns into $\text{Ca}(\text{OH})_2$ which then in turn reacts with the other oxides present in the raw cement to form the inert finished mass of Calcium Silicate, Calcium Aluminum Silicate and similar substances which we call concrete.

Therefore pulverized concrete or cement dust is not in itself caustic but in fact very inert. The only way the concrete dust could be made caustic would be for it to be subjected to intense heat of over 800 degrees C.

The intense heat generated during the collapse of the World Trade Center literally calcined the Calcium Silicate and Calcium Aluminosilicate of the concrete back into Calcium Oxide.

This analysis of the caustic nature of the dust by the USGS therefore confirms and corroborates the reports of the very high temperatures under the collapse site and on the surface itself.

We are told that the intense heat generated by the jet fuel fires melted the 47 steel box columns of the World Trade Center and caused its total collapse.

Thermal calculations have already shown that this is impossible.

But the specific heat capacity of concrete is even higher than steel. Even more thermal energy would be required to heat the concrete to calcine it into CaO than to melt the steel – and there was far more concrete in the buildings than steel.

Energy Comparison

How much energy would be required to heat concrete dust of the World Trade Center sufficiently?



Concrete will decompose into carbon dioxide and CaO at between 1400 to 1600F or 760 to 870C.

Let's assume that less than half the concrete in each building was calcined, i.e. about 50,000 tonnes.

The specific Heat Capacity of concrete is 0.8kJ/kg.K

The thermal energy required to raise that mass of concrete to 760C from room temperature is therefore:

$$50,000 \times 1,000 \times 0.8 \times (760-25) \text{ kJ} = 2.9 \times 10^{10} \text{ kJ or } 2.9 \times 10^{13} \text{ J.}$$

How much thermal energy is available from the fuel in a Boeing 767?

The maximum Fuel Capacity of a standard B767 is 16,700 US Gallons or 112,725 pounds (and we do know that the alleged plane, if it impacted the buildings, had only 10,000 gallons on board at impact.)

The Heat of Combustion of JetA is 42.8 MJ/kg.

The Total Thermal Energy available from the fuel is therefore:

$$(112,725/2.2)\text{kg} \times 42.8 \text{ MJ} = 2.2 \times 10^{12} \text{ J}$$

Therefore even assuming that the total theoretical energy of the fuel was converted into heating up the concrete of the buildings, with 100% conversion efficiency, there would be insufficient energy available to calcine more than a small fraction of the concrete in the World Trade Center.

In reality, much of the fuel from at least the second alleged aircraft impact was expended in a large fireball outside the building. And the official explanation for the collapse is that the burning fuel melted the steel columns of each tower, which would leave no energy left to render the concrete dust caustic.

According to the official FEMA report, the fraudulent examination of one of the worlds most important events and certainly the most important event this century, the 767s carried much less than a full load of fuel, estimated in fact at 10,000 USG.

This amount of fuel could only raise 2,233 tonnes of concrete to 760 C from room temperature, even with a completely unrealistic 100% conversion efficiency.

insufficient energy available to calcine more than a small fraction of the concrete



Other Caustic Sources

There is another source of caustic agents that would have raised the pH in the dust: the radioactive oxides of Calcium, Barium, Strontium and Zinc produced by the nuclear fission and decay. These oxides all form an alkaline solution on contact with water. We have seen that the jet fuel could not possibly have calcined enough concrete to turn the dust caustic. The shock wave itself from the nuclear blast would not calcine the concrete either, but there were eyewitness accounts of the pyroclastic dust “sizzling” as it passed, so evidently the dust was at a high temperature – whether it was hot enough to have calcined the concrete we don’t know at this time.

However, if we say that the intense volcanic heat was localized to the sub-basement levels under the tower, coming from the molten core of some type of nuclear event, and that this heat had no effect on the majority of the dust from the disintegrating towers, the radioactive fallout in the dust would be caustic.

Therefore, the caustic nature of the dust could yet be another indication that the towers were subjected to a nuclear explosion. We can certainly agree we would expect to find caustic dust, caused by the presence of alkali forming oxides of the common nuclear fission products – Barium, Strontium, Zinc and also Calcium.

There is overwhelming evidence that extraordinarily high temperatures were produced during the collapse of the World Trade Center and that they persisted for weeks if not months after the collapse.

University of California at Davis
Aerosol Analysis

The UC Davis DELTA Group (Detection and Evaluation of Long-range Transport of Aerosols) is a collaborative association of aerosol scientists at several universities and national laboratories in the United States. The DELTA Group has measured aerosols’ emissions from the 1991 Gulf War oil fires, volcanic eruptions, global dust storms and the Asian smogs.

The head of the DELTA Group is Professor Thomas Cahill, who due to his background in nuclear physics is an international expert in atmospheric sciences and the properties of aerosols.

From October 2nd, 2001 until mid-December 2001, a volunteer research team from the DELTA Group monitored the levels of atmospheric particles and aerosols in the atmosphere of New York, following the collapse of the World Trade Center.



An automated particle collection system was set up on the roof of 201 Varick Street, one mile north-northeast of the World Trade Center site. On February 11th, 2002, Professor Cahill gave a press conference to describe some of his findings. He made the following comments, quoted here from the UC Davis press release:

“The air from Ground Zero was laden with extremely high amounts of very small particles, probably associated with high temperatures in the underground debris pile. Normally, in New York City and in most of the world, situations like this just don’t exist.”

That’s code for, *“folks, this was a nuclear detonation.”*

He further stated:

“Even on the worst air days in Beijing, downwind from coal-fired power plants, or the Kuwait oil fires, we did not see these levels of very fine particulates.”

The amounts of very fine particles, particularly very fine silicon, decreased sharply during the month of October.

“The US Davis DELTA Group’s ability to measure and analyze particle size, composition and time continuously, day and night, is unequalled. There were numerous events when bursts of wind lasting 6 to 8 hours carried unprecedented amounts of very fine particles to the sampling site. In the largest spike, the DELTA Group analysis found 58 micrograms per cubic meter of very fine particles in one 45-minute period – “an extremely high peak” Cahill said.

Metals

Many different metals were found in the samples of very fine particles, and some were found at the **highest levels ever recorded** in air in the United States.

However, there are few established safety guidelines for airborne metals. One metal for which there is a guideline, lead, was present at low levels in fine and very fine particles.

Some of the metals for which there are no guidelines that were present in very fine particles in relatively high concentrations were Iron, Titanium (some associated with powdered concrete), Vanadium, Nickel (often associated with fuel-oil combustion), Copper and Zinc. Mercury was seen occasionally in fine particles but at low concentrations. Many of those metals are widely used in building construction, wiring and plumbing. Some are common in computers. The metal of the coarse particles is still being analyzed.

What are these small very fine particles that Cahill was making such a point about? How could a metal aerosol be produced? Very high temperatures would be required indeed.

Very small particles are particularly dangerous since they can bypass the bodies natural defence mechanisms and if breathed in, enter directly into the bloodstream. They can also pass through HEPA filters, the finest grade of gas mask available and they can even enter the body through the skin. They are a serious hazard.

Anything with a diameter of less than 2.5 millionths of a meter is to be considered dangerous for these reasons.



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and in most of the world,
situations like this just don’t exist.

The press release further states:

*“There are no established safe limits for inhaled very fine particles. The closest reference is the US EPA “PM2.5” standard, which limits the allowable mass of airborne particles 2.5 micrometers to (0) Zero micrometers. That standard is based on health studies of typical air samples, in which very fine particles are a small fraction of the total mass. In contrast, in the World Trade Center dust samples analyzed at UC Davis, the **very fine particles** are a **large fraction of the total mass.**”*

So we can understand that Professor Cahill would want to draw attention to the fine particulates for health and safety reasons. But is there more to it?

Prof. Cahill also explained the meaning of the generation of the particles to reporters more clearly:

*“The presence of coarse particles immediately after days of rain indicated that they **were being continually re-generated** from a dry, hot source, not re-suspended from roadways and other surfaces.”*

Cahill's words. Continually Regenerated.

“The very fine particles were high in a number of species generally associated with combustion of fuel oil – such as Sulfur, Vanadium and Nickel, and incineration of plastics and other organic matter.”

*“There were also an unusual, very fine, silicon-containing aerosol. This latter type of aerosol can be produced only by **very high temperatures**, including **vaporisation of soil and glass.**”*

“We had seen this previously, but at much lower concentrations, in the plumes of coal-fired power plants in the EPA BRAVO study in Texas, the burning oil fields of Kuwait, and Beijing during the winter coal heating season.”

“In the case of metals, we saw many different species in the very fine particles. Most, including Lead and Mercury, were at low concentrations at our site, but some, such as Vanadium, were the highest that we have seen recorded.”

This is very important. Cahill was saying that the ground under Ground Zero was so hot that the soil itself was vaporized. Glass was not just being melted, but boiled away – and this was still happening weeks later. Even after rain had dampened down the site, these aerosols were being regenerated by the intense underground heat sources. An Ongoing Fission Process.

The presence of Vanadium is very interesting. Cahill's comment about Vanadium and Nickel being associated with the combustion of fuel oil, plastics or organic matter is completely incorrect and draws immediate attention to this incongruity. Sometimes people tell little white lies.

Where would this Vanadium have come from – the highest concentration they had ever seen? Vanadium is not a common element and certainly not a common component of skyscrapers.



The evidence was in the dust...



• Chemical Analysis •

Incineration with 10% chlorine Metal	Boiling Point °C	Earth crustal ppm	Bulk dust EPA ppm	Bulk dust Lioy ppm	Volatility Temp °C	Principal Species
Chromium	2630	102	715	165	1594	CrO ₂ , O ₃
Beryllium	1280	2.8	1.75	3.2	1042	Be(OH) ₂
Barium	1634	425	195	381	895	BaCl ₂
Nickel	2834	84	15.5	43.5	686	NiCl ₂
Antimony	697	0.2	na	na	653	Sb ₂ O ₃
Silver	2190	0.004	4.9	2.3	620	AgCl
Selenium		0.05	< 0.96	na	315	SeO ₂
Cadmium	761	0.15	3.8	7.2	211	Cd
Vanadium	3480	120	18.3	38.9	147	VCl ₄
Thallium	1464	9.6	<0.96	1.4	136	TlOH
Osmium	4224	0.0015	na	na	40	OsO ₄
Arsenic	814	1.8	< 0.96	2.6	32	As ₂ O ₃
Mercury	353	0.085	0.37	nd	25	Hg
SiO ₂	1725	9000	na	na	12	SiCl ₄
Lead	1748	14	98	305	-12	PbCl ₄

But before we get to Vanadium, more on Cahill. Quoted from Cahill's PowerPoint file:

1. Initial fires and collapse-derived "dust storm"
2. Continuing emissions from the debris piles

Both cases shared the unusual aspect of a massive ground level source of particulate matter in a highly populated area with potential health impacts.

Why do we care about very fine ($0.26 > D_p > 0.09 \mu\text{m}$) aerosols?

EPA (AAAR, 10/2002) summarized 5 causal factors most likely to explain the statistically solid data connecting fine PM_{2.5} aerosols and human health.

1. Biological aerosols (bacteria, molds, viruses...)
2. acidic aerosols
3. very fine/ultra fine ($< 0.1 \mu\text{m}$) insoluble aerosols
4. fine transition metals
5. high temperature organics

Four of the five reached unprecedented ambient levels in the very fine aerosol plumes from the WTC collapse piles

On most days, the plumes lofted above NYC so that only those on or near the WTC site breathed these aerosols.

Problems:

We see very fine aerosols typical of combustion temperatures far higher than the WTC collapse piles. We see some elements abundantly and others hardly at all, despite similar abundances in the collapse dust. We see organic species in the very fine mode that would not survive high temperatures.

Explanation

The hot collapse piles are converting some species to gasses that can escape to the surface of the piles and then form aerosols, a process that yields very fine particles.

This report, the Powerpoint presentation by Cahill is a whitewash to cover the truth and it works poorly. The asbestos fears are uncalled for yet every truck was washed before leaving Ground Zero? They washed off the radiation.

DELTA Group slotted 8 DRUM Impactor

- **8 size ranges:**
 - Inlet (~12) to 5.0 μm
 - 5.0 to 2.5 μm
 - 2.5 to 1.15 μm
 - 1.15 to 0.75 μm
 - 0.75 to 0.56 μm
 - 0.56 to 0.34 μm
 - 0.34 to 0.26 μm
 - 0.26 to 0.09 μm
- **10.4 l/min, critical orifice control, ¼ hp pump**
- **6.5 x 168 mm Mylar strips**
- **For 42 day run, 4 mm/day, time resolution = 1 hr.**
- **Field portable**
 - 10 kg, 43 x 22 x 13 cm

*“There were also an unusual, very fine, silicon-containing aerosol. This latter type of aerosol can be produced **ONLY** by very high temperatures, including vaporisation of soil and glass.”*

“These particles simply should not be there,” Cahill said. “It had rained, sometimes heavily, on six days in the prior three weeks. That rain should have settled these coarse particles.” “The finding suggests that coarse particles were being continually generated from the hot debris pile. This observation is at least qualitatively supported, for while they are still being analyzed, the coarse particles appear to be coated with combustion products, including soot,” Cahill said.



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Aerosols in New York City after the World Trade Center collapse												
2													
3	Tom Cahill and the DELTA Group		http://delta.ucdavis.edu			(530) 752-1120							
4	University of California DELTA Group, Department of Applied Science, One Shields Ave., Davis, CA 95616												
5													
6	Sampler site, DOE EML, 201 Varick Street, New York City, NY (Leifer, 2001)												
7	Particle collection by 8 stage slotted DRUM sampler, (Cahill et al, 1985; Raabe et al, 1988; Raabe, 1999)												
8	Quality assurance:		Level 0	a) critical orifice before, after				Level 1	a) orifice audit				
9	Mass in vacuum by scanning transmission ion microscopy (STIM),												
10	Lawrence Livermore National Laboratory												
11	Bench et al, Aerosol Science and Technology (vol. 36: 642-651, 2002)												
12	Quality assurance:		Level 0; stc	Level 1	a) soft beta mass (in air)				b) sum of species (in vacuum)				
13	DRUM	Conversion											
14		Constant	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	appr PM10	appr PM2.5	
15		0.0167 cm ² /m ³	app. 12 to 5.0	5.0 to 2.5	2.5 to 1.15	1.15 to 0.75	0.75 to 0.56	0.56 to 0.34	0.34 to 0.24	0.24 to 0.09	(inlet about	(no uf)	
16			micrometers	micrometers	micrometers	micrometers	micrometers	micrometers	micrometers	micrometers	12, no uf)		
17											in vacuum	in vacuum	
18		Time shift (hr)	0.0	0.0	+ 1.5	+ 2.25	-3.0	0.0	- 1.5	0.0			
19		Time width (hr)	6	5	4	3	2	2	1.5	1.5			
20		Time error (hr)	12	6	6	6	6	6	6	6			
21	Note: standard DELTA Group time marker protocols not employed												
22													
23		Mass units	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	microg/m ³	
24		MDL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
25		Error	MDL + 20%	MDL + 10%	MDL + 5%	MDL + 5%	MDL + 5%	MDL + 5%	MDL + 5%	MDL + 5%	MDL + 15%	MDL + 5%	
26			of value	of value	of value	of value	of value	of value	of value	of value	of value	of value	
27	October	Time											
28	2	12.75	na	na	na	na	na	na	na	na	na	na	
29	2	13.50	na	na	na	na	na	na	na	na	na	na	
30	2	14.25	na	na	na	na	na	na	na	na	na	na	

Available as a PowerPoint presentation, the data from the UC Davis - Cahill report indicates very fine particles were found at higher than expected and very high levels.

Where Did The Vanadium Come From?

We've seen previously that Vanadium is a decay product of radioactive fallout. It is associated with Nickel and Chromium in its decay series. The graph at right, from Cahill's report, shows that on the 3rd of October a high spike of Vanadium was detected, 60 ng/m³. On the 26th of October there was a massive spike in the concentration of Chromium which goes off the scale (over 150 ng/m³) and to a lesser extent Nickel. Vanadium, Chromium and Nickel are radioactive decay products from the same decay pathway. It is interesting that on the 3rd and 4th of October, the spikes in Vanadium concentration are accompanied by Silicon spikes, but on the 26th the enormous Chromium/Nickel spike is not matched by the Silicon or Sulfur. Whatever happened on the 26th of October must have been a major event of some kind, to create this enormous Chromium emission without the normal building materials present. We can speculate that on the 26th of October, 2001, perhaps the core, the location where fission was still active, was exposed, allowing high amounts of Chromium and Nickel to escape into the atmosphere.

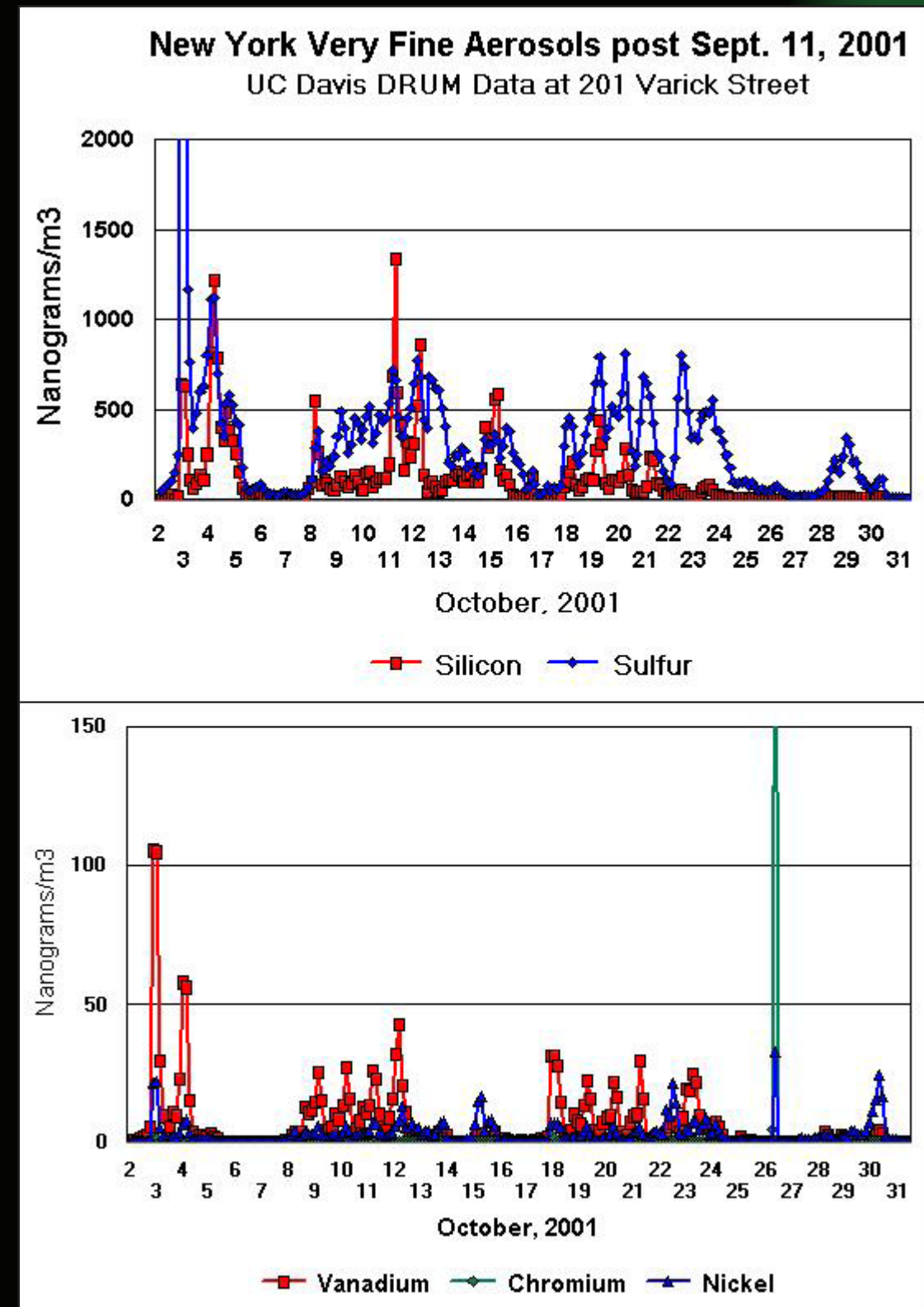
Stainless Steel

These spikes recorded by Cahill of Chromium, Nickel and to a lesser extent Vanadium are also interesting from another point of view. Surrounding the fissile core of a nuclear device is an enormous amount of stainless steel. The pressure vessel itself is normally made of stainless steel 6 inches thick. For reactors, all of the cooling pipes, heat exchangers and condensers carrying coolant water are made of stainless steel. As an example, the Indian Prototype Fast Breeder Reactor (PFBR) contains about 3300 tonnes of stainless steel in its core material and accessories, not including the steam turbines. The main element alloyed with steel to create stainless steel is Chromium. Normally, between 9% and 12% of Stainless Steel is Chromium. Other major alloying elements include Nickel, Vanadium, Molybdenum and for specialized nuclear applications, Titanium and Zirconium. In fact, the single biggest industrial use of Nickel is in the manufacture of stainless steel. Given the extremely high temperatures that we know existed below the rubble, high enough to continually vaporize soil and glass, and the existence of molten pools of steel, it can be hypothesized that the enormous Chromium and Nickel spike on the 26th of October may have been caused by the vaporization of a pool of stainless steel, exposed by recovery operations on that day. If the temperature reached over 700 degrees C at the surface, it would have been substantially higher below. We know that the underground temperatures were high enough to vaporize glass. The boiling point of Silicon Dioxide is 2230 degrees C, which would be achievable underground if the surface temperature were 700 degrees C. The boiling point of steel is about 2800 degrees C, which is about the same as the melting point of Uranium or the temperature expected in the core melt of a reactor melt-down. Even if the molten steel was not boiling, it would still vaporize at the temperatures we know existed of over 2000 degrees C. The evidence that glass was being vaporized strongly supports the possibility that stainless steel, if it was present, was also being vaporized.

Diphenyl

An interesting observation is made in the New Scientist article on the following page. Of the 400 organic compounds detected after the collapse, many have never been detected in the air before. One of these rare, never before seen compounds detected by the EPA was diphenyl propane. Where did the diphenyl come from?

Mixtures of diphenyl and diphenyl oxide have been used as the coolant for certain nuclear reactors – organic solvent cooled reactors. Diphenyl apparently never became as popular as water as a reactor coolant mainly due to the sensitivity of these solvents to radiation. If diphenyl is so rare, that the EPA have never seen it as an air pollutant before, its presence may provide evidence that a diphenyl cooled nuclear reactor was under the towers or that some new and advanced form of nuclear devices were used.



Two Years after the terrorist attacks on the World Trade Center in New York City, which claimed almost 3000 lives, researchers have gathered to assess the legacy of the giant plume of smoke and dust caused by the atrocity.

The makeup of the plume was unique in its chemical composition and unprecedented in its complexity. As a result, no one yet knows the health effects of breathing them in and therefore how many more people may have been affected by the collapse of the Twin Towers.

“This was a fully functional building that was completely smulched into a burning pit,” says Thomas Cahill, an atmospheric physicist at the University of California Davis, who has focused on the composition of the finest particles in the plume for the past two years.

“That’s never happened before, so we are in completely new territory. All we can say is we are worried about it,” he says. *“It may take years before these effects show up, just like with radiation.”*

Astonishing Complexity

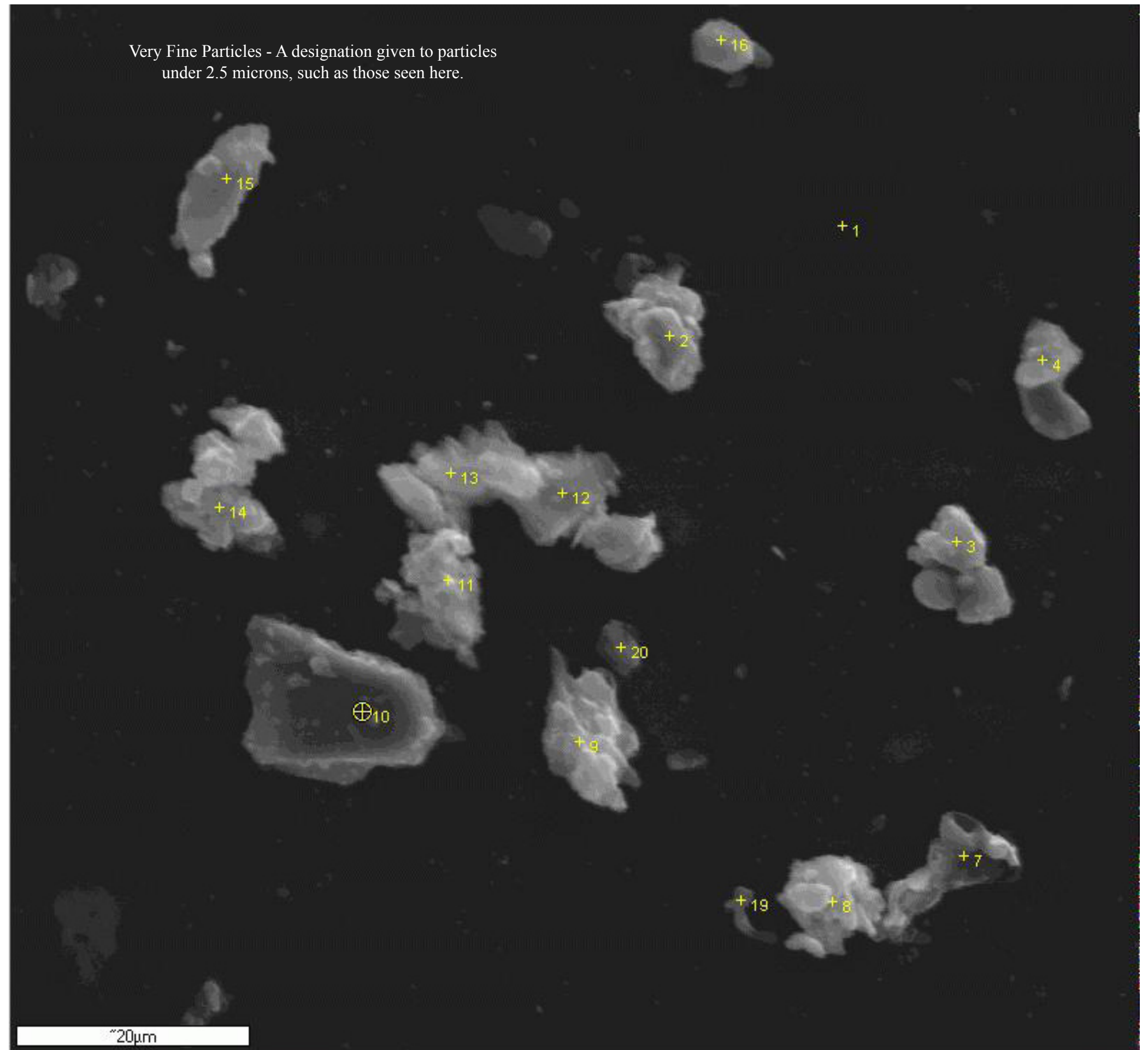
The gathering Wednesday at the American Chemical Society’s meeting in New York was the first time chemists, atmospheric physicists and doctors from over 20 US institutions had got together to pool their results.

Paul Liroy, of the Univeristy of Medicine and Dentistry of New Jersey, emphasized to the meeting the sheer diversity of chemicals that were present in the dust. A mixture of plastics, computer hardware, synthetic furniture and hundreds of miles of wire burned to produce an aerosol of astonishing complexity. Out of 400 organic alkanes, pthalates and polyaromatic hydrocarbons he identified, the majority had never before been detected in the air, he says.

One such compound, detected by researchers from the Environmental Protection Agency, was Diphenyl Propane, thought to have come from burning plastic. The health consequences of breathing it are totally unknown, says EPA scientist Leonard Stockburger.

Scientists from the US Geological Survey showed that even among the well-known molecules and crystals, new shapes of particles were thrown up by the plume. “They detected fibrous, cylindrical materials, which have a totally different behavior to spherical particles,” says Michael Hays of the EPA, who attended the meeting. “How does that influence inhalation routes?”

But the scientists were careful to be clear about their message. “We don’t want people to get the wrong impression. For long term effects, we are simply in an area of unknowns,” says Liroy.



Next, the chemists hope to produce a map of exactly what was in the air and when in the weeks and months after the September 11th attacks. Then, if people develop symptoms, the doctors will know exactly what they were likely to have inhaled. The New York City Department of Health launched a survey last Friday that will follow the health of up to **200,000 people** who were in the vicinity of the Twin Towers when they collapsed. Some evidence of ongoing effects has already surfaced. A study published in August showed that pregnant women who were near Ground Zero on September 11th or up to three weeks later were **twice as likely to give birth to smaller babies** as women who were not.

Note: reduced birth weight of neonates is a well known symptom of exposure to radiation.

NY Air Hazards EPA Assurances Contradicted by UCD Scientists

Dr. Cahill, a 65 year old professor emeritus of physics and atmospheric sciences has used his background in nuclear physics to pioneer methods and tools for analyzing aerosols – tiny particles suspended in the air – and has led more than 40 studies on pollution around the world, including several in national parks and in the basins of Lake Tahoe and Mono Lake.

The Ground Zero monitoring showed the fallout had subsided by late December, when Cahill's team stopped sampling. He said rain probably has cleared the air outside, but he is concerned about New Yorkers returning to contaminated buildings.

"These size particles travel like a gas. They penetrate windows, doors, everywhere," he said. *"You don't feel it, and you can't see it."*

Cahill is whistleblowing here, with his comment that these gas-like aerosol particles *"penetrate windows, doors"* and that you cannot see it or feel it. Is this not an exact description of radiation? In fact, a gas could not pass through glass windows or through the structure of a door – the only thing that can penetrate in that way is radiation. Cahill was hinting strongly as he dare that the fallout is radioactive, to people that can decipher what he means. In the New Scientist article, he has also commented that the effects will be long term, ***"just like radiation"***.

Here are more revealing extracts:

*"The September 11th collapse of the 110-story skyscrapers crushed concrete, glass, computers, electrical wiring, carpeting, furniture and everything else in the building, then burned and **broiled** the compressed pulverized mass for weeks. In the **super-heated** rubble the material disintegrated into extremely small particles, which were released into the air for weeks. It's like having a large power plant at ground level with no stack,"* said Cahill.

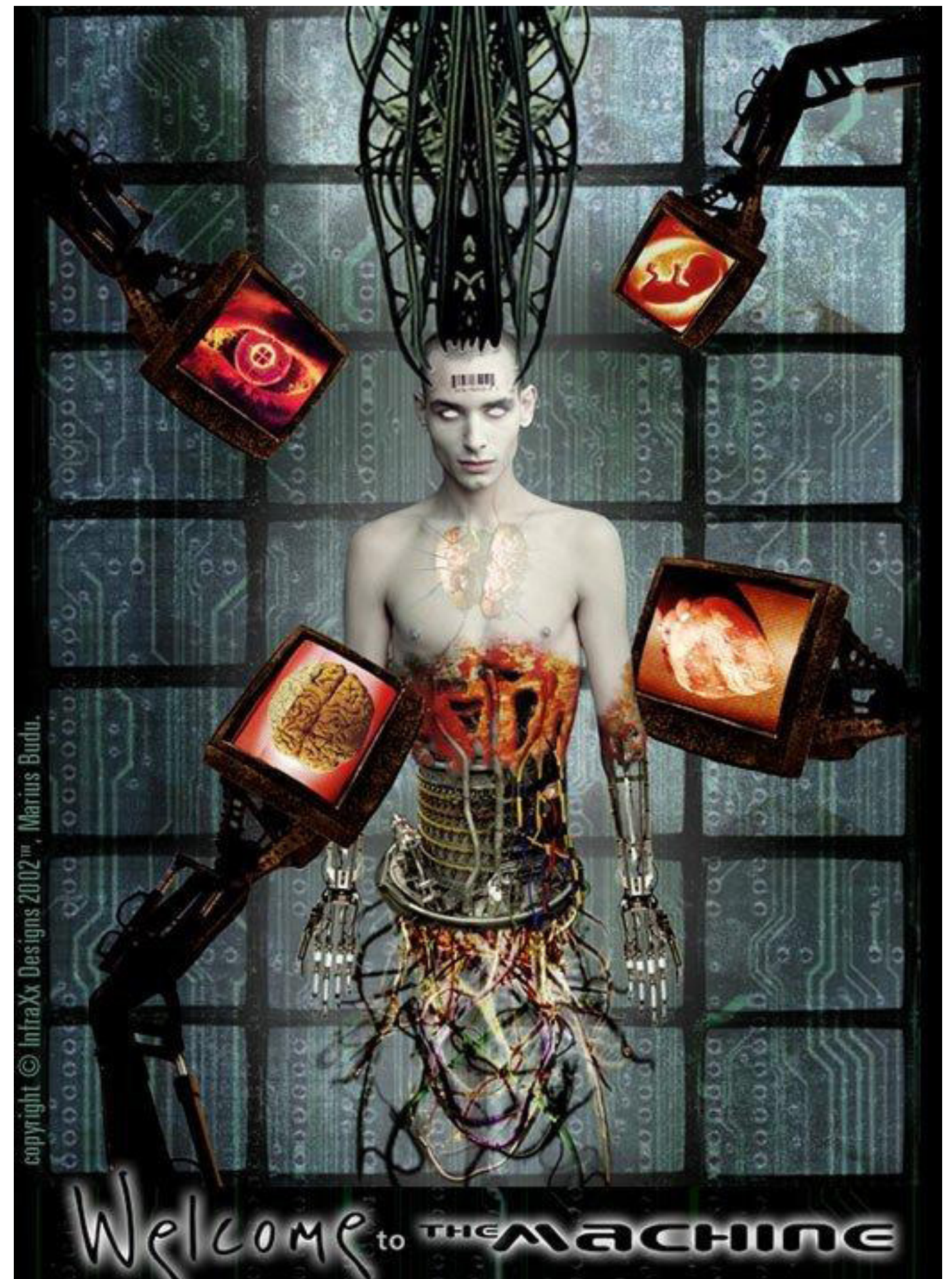
By Cahill's own assessment, the super-heated core of the building, buried under a giant pile of rubble with little to no oxygen, created a pressure cooker that broiled the concrete, glass, computers and everything else into infinitesimally small particles that were exuded in a gassy, lingering haze. The article goes on to quote Bruce case, former Head of the EPA's Center for Environmental Epidemiology;

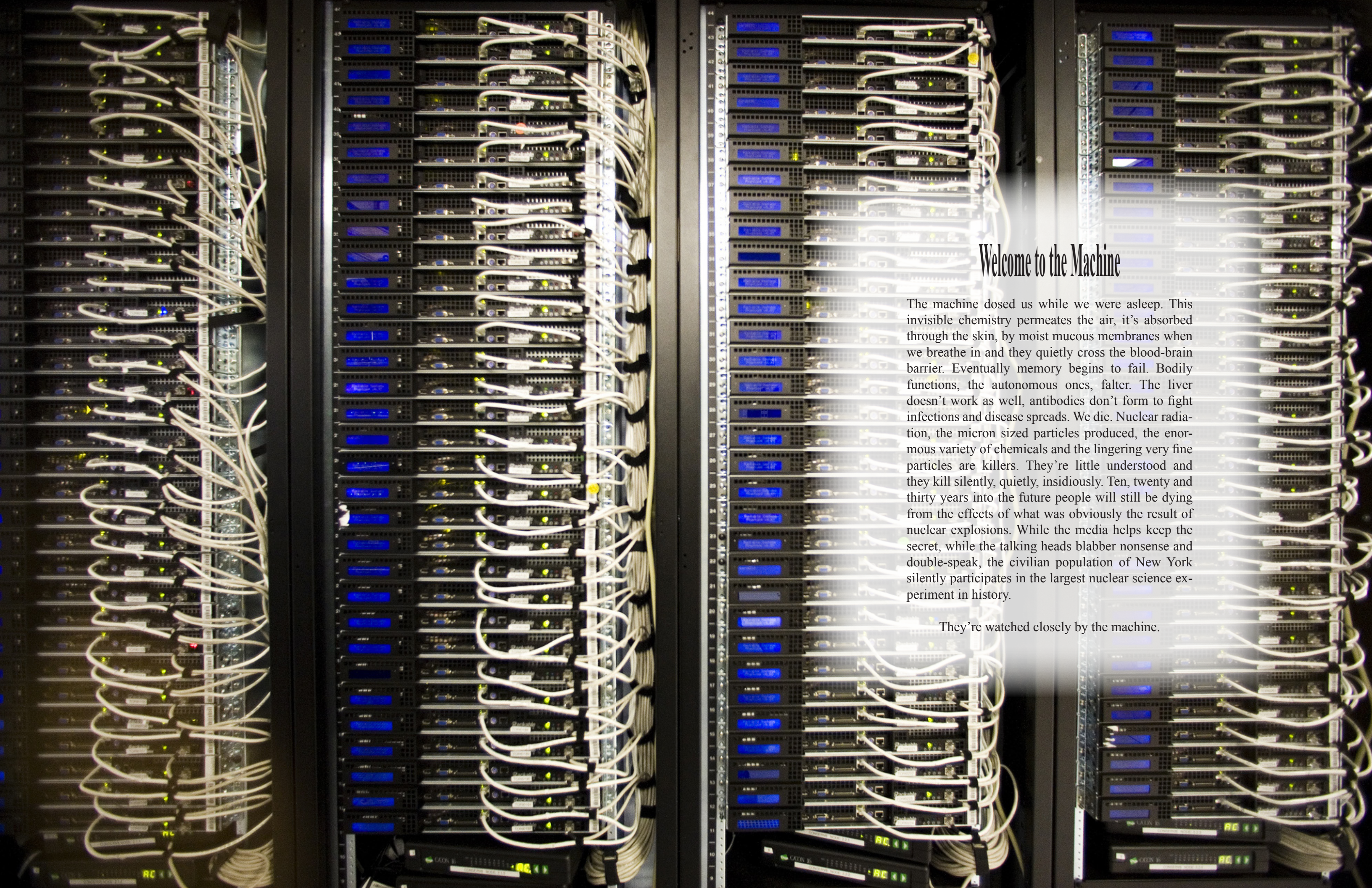
"This was a unique event in many ways and one of those ways was the types of human exposure produced."

The emphasis on Asbestos turned out to be misplaced.

Case predicted that the health fallout from the World Trade Center attack will continue indefinitely. *"Regrettably,"* he said, ***"what we have here is a human experiment on a grand scale."***

Bruce Case is absolutely correct.





Welcome to the Machine

The machine dosed us while we were asleep. This invisible chemistry permeates the air, it's absorbed through the skin, by moist mucous membranes when we breathe in and they quietly cross the blood-brain barrier. Eventually memory begins to fail. Bodily functions, the autonomous ones, falter. The liver doesn't work as well, antibodies don't form to fight infections and disease spreads. We die. Nuclear radiation, the micron sized particles produced, the enormous variety of chemicals and the lingering very fine particles are killers. They're little understood and they kill silently, quietly, insidiously. Ten, twenty and thirty years into the future people will still be dying from the effects of what was obviously the result of nuclear explosions. While the media helps keep the secret, while the talking heads blabber nonsense and double-speak, the civilian population of New York silently participates in the largest nuclear science experiment in history.

They're watched closely by the machine.

The Experiment

The experiment is to determine what the long-term effects are on the human civilian population when an enhanced radiation nuclear device is detonated in the center of a major metropolis and the population carries on its activities as it normally would. Let's shop?

An interesting exercise in applied experimental biology, chemistry and medicine, following in a long line of non-consensual clandestine nuclear experiments on the civilian population and the military that the US and UK have conducted since the 1940s. We are Guinea Pigs and we are not allowed to know.

<http://uscisis.lege.net/911/>

*"Peter Tully, president of Tully Construction of Flushing, New York, told AFP that he saw pools of **"literally molten steel"** at the World Trade Center."*

*"Tully was contracted after the September 11th tragedy to remove the debris from the site. Tully called Mark Loizeaux, president of Controlled Demolition, Inc., (CDI) of Phoenix, MD., for consultation about removing the debris, CDI calls itself the **"innovator and global leader in the controlled demolition and implosion of structures."***

Loizeaux, who cleaned up the bombed Alfred P. Murrah Federal Building in Oklahoma City, arrived at the World Trade Center site two days later and wrote the cleanup plan for the entire operation. AFP asked Loizeaux about the report of molten steel on the site.

*"Yes," he said, **"hot spots of molten steel in the basements."***

These incredibly hot areas were found ***"at the bottoms of the elevator shafts of the main towers, down seven [basement] levels,"*** Loizeaux said.

The molten steel was found ***"three, four, and five weeks later, when the rubble was being removed,"*** Loizeaux said. He said, ***"molten steel was also found at 7 World Trade Center,"*** which collapsed mysteriously in the late afternoon. Construction steel has an extremely high melting point of about 2,800 degrees Fahrenheit. Asked what could have caused such extreme heat, Tully said, ***"Think of the jet fuel."***

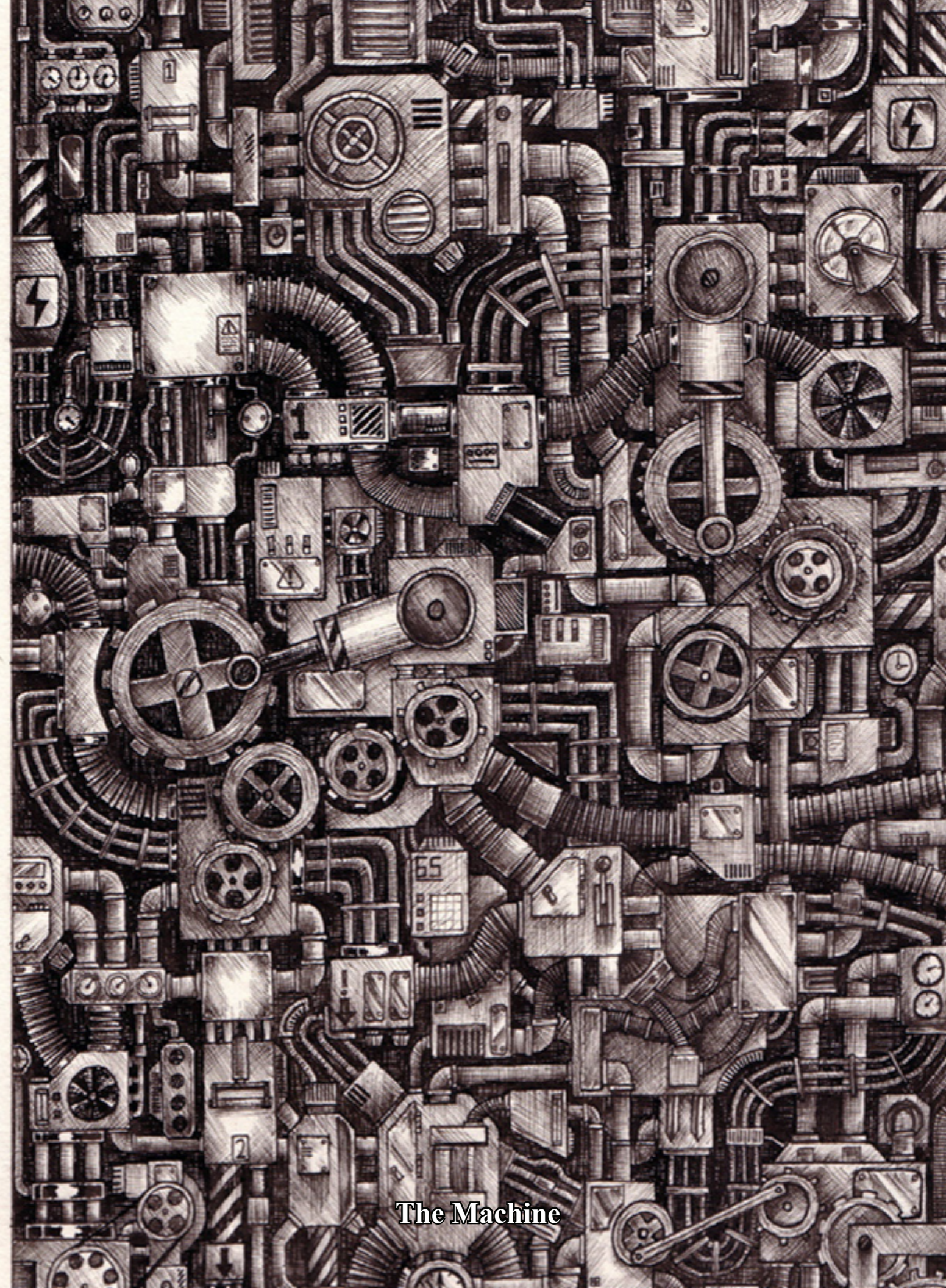
We have thought of the jet fuel. It's incapable of creating this heat and these fires.

Loizeaux told AFP that the steel-melting fires were fuelled by ***"paper, carpet and other combustibles packed down the elevator shafts by the towers floors as they 'pancaked' into the basement."***

Loizeaux expects us to believe this nonsense?

However, some independent investigators dispute this claim, saying kerosene-based jet fuel, paper, or other combustibles normally found in the towers, cannot generate the heat required to melt steel, especially in an oxygen-poor environment like a deep basement. Eric Hufschmid, author of a book about the World Trade Center collapse, Painful Questions, told AFP that due to the lack of oxygen, paper and other combustibles packed down at the bottom of elevator shafts would probably be ***"a smoky smouldering pile."***

Experts disagree that jet-fuel or paper could generate such heat. This is IMPOSSIBLE, they say, because the maximum temperature that can be reached by hydrocarbon like jet-fuel burning in air is 1,520 degrees Fahrenheit. Because the World Trade Center fires were fuel rich, as evidenced by the thick black smoke, it is argued that they never reached this upper limit for these extremely high and extremely hot temperatures.



The Machine



Dust speaks volumes, screaming out...

The hottest spots at the surface of the rubble, where abundant oxygen was available, were much cooler than the molten steel found in the basements.

Five days after the collapse, on September 16th, the National Aeronautics and Space Administration (NASA) used Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) to locate and measure the site's hot spots.

Dozens of hot spots were mapped, the hottest being in the east corner of the South Tower where a temperature of 1,377 degrees Fahrenheit was recorded. This is, however, less than half as hot as the molten steel in the basement.

The foundations of the Twin Towers were 70 feet deep. At that level, 47 huge box columns, connected to the bedrock, supported the entire gravity load of the structures. The steel walls of these lower box columns were four inches thick. Videos of the North Tower collapse show its communication mast falling first, indicating that the central support columns must have failed at the very beginning of the collapse. Loizeaux told APF, *"Everything went simultaneously."*

"At 10:29 the entire top section of the North Tower had been severed from the base and began falling down," Hufschmid writes. *"If the first event was the falling of a floor, how did that progress to the severing of hundreds of columns?"*

Asked if the vertical support columns gave way before the connections between the floors and the columns, Ron Hamburger, a structural engineer with the FEMA assessment team said, *"That's the \$64,000 question."*

Loizeaux said, *"If I were to bring the Towers down, I would put explosives in the basement to get the weight of the building to help collapse the structure."*

Letter from Mr. Mark Loizeaux to Mr. Gary Bryan of the Libertypost.org Website

Mr Bryan:

I didn't personally see molten steel at the World Trade Center site. It was reported to me by contractors we had been working with. Molten Steel was encountered primarily during excavation of debris around the South Tower when large hydraulic excavators were digging trenches 2 to 4 meters deep (6-12 feet) into the compacted/burning debris pile. There are both video tape and still photos of the molten steel being "dipped" out by the buckets of excavators. I'm not sure where you can get a copy.

Sorry I cannot provide personal confirmation.

Regards,

Mark Loizeaux, President
Controlled Demolition, Inc.

New York Visit Reveals Key Elements Of The Tragedy

From: The Structural Engineer, Vol. 80, No. 17, Pages 6-7, September 3rd, 2002

The Ground Zero site where the World Trade Center Towers once stood was the focus of the visit by Professor David Blockley and Dr. Keith Eaton to New York, on the first leg of their North American tour. They discussed developments on the site with Pablo Lopez and Andrew Pontecorvo of Mueser Rutledge.

Dr. Eaton said: *“We are given a fascinating insight into what had been happening at the site. Our hosts, under the firms principle engineer George Tamaro (F), had been constantly involved at Ground Zero for several months. They had been called in as foundation engineers within a week of 11 September, and had spent several months examining the stability of the debris and the diaphragm wall all around the site, commonly known as the “bathtub” or Slurry Wall. They had been key individuals in advising on the excavation of the site, with a great deal of care being needed before debris could be removed in order to maintain the stability of the original slurry walls.”*

Note: The “bathtub” is not a bathtub at all but rather a Slurry Wall that surrounded the World Trade Center site. It had no bottom and was nothing more than a deep wall. It was not a bathtub at all.

“They showed us many fascinating slides,” he continued, “ranging from molten metal which was still red hot weeks after the event, to 4-inch thick steel plates sheared and bent in the disaster.”



Certainly we can prove, using physics and chemistry, that Energetic Nano Compounds and other similar incendiaries are not capable of this. They are efficient burners and use their fuel in milliseconds. They are then spent. Even residual thermite compounds left after the collapse would burn rapidly when ignited and not provide the material required for fires such as this to burn continuously for many, many weeks.



Molten Metal Talks To Us In The Language Of Chemistry and Physics

Multiple Myeloma

A CDC Study Of Work-Related Radiation Exposure

Summary:

This study is the first to look at radiation exposure to see if it may be linked to multiple myeloma among K-25 workers. We found workers who had swallowed or breathed-in radioactive particles had a 4% higher chance of dying of multiple myeloma compared to workers not exposed this way. We found no increased chance of multiple myeloma among workers who were only exposed to radiation that was outside the body.

Multiple myeloma is a rare type of cancer that starts in the bone marrow. Causes of this cancer are not known. Studies have been done to see if radiation exposure may cause this type of cancer in certain workers, such as radiologists, veterinarians, and uranium miners. The findings from these studies were not clear. Some found radiation exposure may cause multiple myeloma, others did not. The K-25 site (also known as the Oak Ridge Gaseous Diffusion Plant) was used to enrich uranium, a radioactive material. Workers at K-25 may have been exposed to uranium. Because of this, we felt it was important to find out if workers from K-25 have a higher chance of dying of multiple myeloma.

Who was in the study

Those in the study worked at K-25 for at least 30 days between 1945 and 1985. The total number of workers during this time was 47,941. By looking at death certificates through 1998, we found 98 workers died of multiple myeloma. We used work records to estimate how much radiation these workers were exposed to. We wanted to see if workers exposed to radiation had a higher chance of dying of multiple myeloma compared to other workers at K-25 who were not exposed.

How radiation exposures happen

A person can be exposed externally to radiation just by standing near it. A person can be exposed internally by breathing in or swallowing radioactive particles in the air. Particles can be absorbed through cuts or sores as well. We were interested in studying all of these types of radiation exposure.

Other exposures we considered

Besides looking at exposure to radiation, we also took into account how much mercury, nickel and trichloroethylene (TCE) workers may have been exposed to. These were used in large amounts at the site and may also cause cancer.

What we found

Workers who had swallowed or breathed-in radioactive particles had a 4% higher chance of dying of multiple myeloma compared to workers not exposed this way. There was no increased chance of multiple myeloma among workers who were only exposed to radiation that was outside the body.

Important notes

At K-25, urinalysis was used to monitor internal exposure to radiation. For the workers with no urinalysis records, we used available work history records to estimate dose from internal exposures to radiation. Our study did not include workers who currently have multiple myeloma. This is because the study design we used identified multiple myeloma cases using death certificates. External Link: http://www.cdc.gov/niosh/oerp/pdfs/k25_7-06-09.pdf

Multiple Myeloma

The Pulmonary Fibrosis Foundation

Summary by Kevin Ryan:

As for multiple myeloma, researchers associated with the World Trade Center Medical Monitoring and Treatment Program at the Mount Sinai School of Medicine examined many sick first responders. One result was that they found eight times the expected level of multiple myeloma in people below the age of 45.

Environmental factors that cause multiple myeloma include phenoxyacetic acids, which are compounds that are structurally similar to 1,3-DPP. Another causal factor is DDT, a highly chlorinated diphenylethane. [14] Diphenylethane is structurally very similar to diphenylpropane (DPP). This suggests that the observed presence of 1,3-DPP could be a causal factor of the multiple myeloma seen in WTC first responders, in that derivatives of 1,3-DPP might be responsible for the illnesses. External Link: <http://www.pulmonaryfibrosis.org/node/518>

So here we have Kevin Ryan suggesting that Myeloma may be, might be, caused by very rare phenoxyacetic acids. We also have the CDC stating that, "Causes of this cancer are not known." So who do we believe? The facts are clear on this issue. While specific causes of Myeloma are still as yet unknown, we do know that radiation is a contributing factor based on the CDC study which produced results indicating those people with internal radiation exposure are 4% more likely to die from Myeloma as a result of that exposure. First Responders. Myeloma.

Multiple Myeloma In The General Population

Multiple Myeloma In First Responders

In the general population Myeloma occurs at the rate of 3-9 per 100,000 people. That rate also occurs 99% of the time in people over 65. Just 1% are ever under the age of 65 in the general population.

In the population of 40,000 First Responders the rate is 1 in 534 people. This means 75 First Responders have died from Myeloma. What's more, they have all been between 37 and 60 years of age with most under 55. These are extraordinary figures, unprecedented, and this report confirms why this is happening. Worse, there are approximately 8,000 sick First Responders today and many that have already died have succumbed to not one, not two, but sometimes 3 different rare cancers. One doesn't need the chemistry and physics to understand the truth.



Multiple Myeloma (MM) and Exposure to Ionizing Radiation

Summary: Studies conducted at the Los Alamos National Laboratory and other nuclear facilities, as well as those exposed to radiation from the atomic bomb suggest an increased likelihood of developing multiple myeloma for those who have been exposed to ionizing radiation. These findings are consistent with the determination of the National Research Council's BEIR V committee that multiple myeloma has been associated with exposure to ionizing radiation. Multiple myeloma is a "specified" cancer under the EEOICPA. Historically, multiple myeloma incidence and mortality in Los Alamos County fall in the middle of New Mexico counties while Rio Arriba County is among counties with the highest rates in the state. Incidence means new cases of cancer, while mortality means deaths due to cancer.

What is Multiple Myeloma?

Multiple myeloma is a type of cancer that affects certain white blood cells called plasma cells. Plasma cells and other white blood cells are part of the immune system, which helps protect the body from infection and disease. When cancer involves plasma cells, the body keeps producing more and more of these cells. The unneeded plasma cells -- all abnormal and all exactly alike -- are called myeloma cells. Myeloma cancer cells tend to collect in the bone marrow and in the hard, outer part of bones. Sometimes they collect in only one bone and form a single mass, or tumor. In most cases, however, the myeloma cells collect in many bones, often forming many tumors. When this happens, the disease is called multiple myeloma. Although multiple myeloma affects the bones, they begin in cells of the immune system. These cancers are different from bone cancer, which actually begins in cells that form the hard, outer part of the bone.

Findings of Human Health Research Studies

Human health research studies compare the patterns of disease among groups of people with different amounts of exposure to a suspected risk factor. Below are results reported from such studies of multiple myeloma among people exposed to ionizing radiation.

All of these studies found increases and possible increases in multiple myeloma (MM) among certain groups of exposed workers. Statistically significant is a term used to mean that the connection between the health outcome and the exposure was strong enough that it was unlikely to be due to chance. The research included incidence studies, which look at new cases of cancer. These can track health more quickly and accurately than mortality studies of deaths due to cancer. Adding to the strength of the findings is that increasing rates of MM were observed with higher doses in some studies.

http://www.clarku.edu/mtafund/prodlib/jsi/Multiple%20Myeloma_and_Exposure_to_Ionizing_Radiation.pdf

Multiple Myeloma And Ionizing Radiation

Based on follow-up of survivors of World War II atomic bombs as well as occupationally and therapeutically exposed groups, myeloma is shown to be causally related to exposure to ionising radiation. (viii) (ix) (x). In relation to the UK atmospheric nuclear test detonations and clear up operations between 1952 and 1958, the UK carried out 21 atmospheric nuclear tests (12 in Australia, 9 at Christmas Island), in the South Pacific. The radiological safety standards at the trials were based on the then consensus of international scientific opinion as formulated by the International Commission on Radiological Protection. A fundamental principle was to keep any exposure as low as possible. Many of the detonations involved high air bursts falling freely. The risk of significant contamination of land occupied by service or civilian participants from these air bursts was avoided by careful selection of weather conditions and environmental monitoring following the tests. The natural background radiation at

Christmas Island is very much less than that of average UK locations. Overall it is considered that almost all the British servicemen involved in the UK nuclear tests received little or no additional radiation exposure as a result of participation.

http://www.patscotland.org.uk/medical_appendices/M/MYELOMA%20AND%20PARAPROTEINAEMIA.pdf

Multiple myeloma is a debilitating malignancy that is part of a spectrum of diseases ranging from monoclonal gammopathy of unknown significance (MGUS) to plasma cell leukemia. First described in 1848, multiple myeloma is a disease characterized by a proliferation of malignant plasma cells and a subsequent overabundance of monoclonal paraprotein. An intriguing feature of multiple myeloma is that the antibody-forming cells (ie, plasma cells) are malignant and, therefore, may cause unusual manifestations.

Frequency And Statistics In The United States

The age-adjusted annual incidence of multiple myeloma is 4.3 cases per 100,000 white men, 3 cases per 100,000 white women, 9.6 cases per 100,000 black men, and 6.7 cases per 100,000 black women.

Multiple myeloma affects the kidneys in several ways. The most common mechanisms of renal injury are direct tubular injury, amyloidosis, or involvement by plasmacytoma. Physicians manage the acute clinical condition with plasmapheresis to rapidly lower circulating abnormal proteins. Data about this approach are limited, but a small randomized study showed a survival advantage with the use of apheresis. Conventional therapy may take weeks to months to show a benefit. Renal impairment resulting from multiple myeloma is associated with a very poor prognosis. A recent case series demonstrated that patients with renal failure from myeloma may benefit from autologous stem cell transplants, and as many as one third may demonstrate improvement in their renal function with this approach. Spinal cord compression is one of the most severe adverse effects of multiple myeloma. Reports indicate that as many as 20% of patients develop spinal cord compression at some point during the course of their disease. Symptoms typically include back pain, weakness or paralysis in the legs, numbness, or dysesthesias in the lower extremities. However, depending on the level of involvement, patients may present with upper extremity symptoms.

The mechanism of these symptoms may be the development of an epidural mass with compression, a compression fracture of a vertebral body destroyed by multiple myeloma, or, rarely, an extradural mass. The dysfunction may be reversible, depending on the duration of the cord compression; however, once established, the dysfunction is only rarely fully reversed. A frequent complication of multiple myeloma is pathologic fractures. Bony involvement is typically lytic in nature. Physicians should orthopedically stabilize (ie, typically pin) and irradiate these lesions. Careful attention to a patient's bony symptoms, intermittent radiographic surveys, and the use of bisphosphonates may be useful to prevent fractures. Patients with multiple myeloma commonly develop hypercalcemia. The mechanisms include bony involvement and, possibly, humoral mechanisms. Treatment for myeloma-induced hypercalcemia is the same as that for other malignancy-associated hypercalcemia; however, the dismal outcome observed with hypercalcemia in solid tumors is not observed in multiple myeloma.

Multiple myeloma accounts for 1.1% of the malignancies in white US residents and 2.1% of the malignancies in black residents. The male-to-female ratio of multiple myeloma is 3:2. The median age of patients with multiple myeloma is 68 years for men and 70 years for women.

History Of Myeloma

Presenting symptoms of multiple myeloma include bone pain, pathologic fractures, weakness, anemia, infection (often pneumococcal), hypercalcemia, spinal cord compression, or renal failure. Increasingly, physicians are identifying asymptomatic patients through routine blood screening. Typically, a large gap between the total protein

and the albumin levels observed on an automated chemistry panel suggests a problem (ie, protein minus albumin equals globulin). This is the most common presenting symptom in multiple myeloma. Most case series report that 70% of patients have bone pain at presentation. The lumbar spine is one of the most common sites of pain.

Pathologic fractures are very common in multiple myeloma; 93% of patients have more than one site of bony involvement. A severe bony event is a common presenting issue. This complication occurs in approximately 10-20% of patients with multiple myeloma at some time during the course of disease. The symptoms that should alert physicians to consider spinal cord compression are back pain, weakness, numbness, or dysesthesias in the extremities. It is common for spinal cord compressions in multiple myeloma to occur at multiple levels, so comprehensive evaluation of the spine is warranted. Patients who are ambulatory at the start of therapy have the best likelihood of preserving function and avoiding paralysis. Occasionally, a patient may come to medical attention for bleeding resulting from thrombocytopenia. Rarely, monoclonal protein may absorb clotting factors and lead to bleeding.

Confusion, somnolence, bone pain, constipation, nausea, and thirst are the presenting symptoms of hypercalcemia. This complication may be present in as many as 30% of patients with multiple myeloma at presentation. In most solid malignancies, hypercalcemia carries an ominous prognosis, but in multiple myeloma, its occurrence does not adversely affect survival. Abnormal humoral immunity and leukopenia may lead to infection.

Pneumococcal organisms are commonly involved, but shingles (ie, herpes zoster) and Haemophilus infections are also more common among patients with multiple myeloma. Epistaxis may be a presenting symptom of multiple myeloma with a high tumor volume. Occasionally, patients may have such a high volume of monoclonal protein that their blood viscosity increases, resulting in complications such as stroke, myocardial ischemia, or infarction. Patients may report headaches and somnolence, and they may bruise easily and have hazy vision. Patients with multiple myeloma typically experience these symptoms when their serum viscosity is greater than 4 times that of normal serum.

Carpal tunnel syndrome is a common complication of myeloma. Meningitis (especially that resulting from pneumococcal or meningococcal infection) is more common in patients with multiple myeloma. Some peripheral neuropathies have been attributed to multiple myeloma. Anemia, which may be quite severe, is the most common cause of weakness in patients with multiple myeloma. Pallor from anemia may be present. Ecchymoses or purpura from thrombocytopenia may be evident. Bony tenderness is not uncommon in multiple myeloma, resulting from focal lytic destructive bone lesions or pathologic fracture. Pain without tenderness is typical. Neurologic findings may include a sensory level change (ie, loss of sensation below a dermatome corresponding to a spinal cord compression), weakness, or carpal tunnel syndrome. Extramedullary plasmacytomas, which consist of soft-tissue masses of plasma cells, are not uncommon. Plasmacytomas have been described in almost every site in the body. Although the aerodigestive tract is the most common location, reports also describe orbital, ear canal, cutaneous, gastric, rectal, prostatic, and retroperitoneal lesions. Amyloidosis may develop in some patients with multiple myeloma.

The characteristic physical examination findings that suggest amyloidosis include the following:

The shoulder pad sign is defined by bilateral swelling of the shoulder joints secondary to amyloid deposition. Physicians describe the swelling as hard and rubbery. Amyloidosis may also be associated with carpal tunnel syndrome and subcutaneous nodules. Macroglossia is a common finding in patients with amyloidosis. Skin lesions that have been described as waxy papules or nodules may occur on the torso, ears, or lips.

Postprotoscopic peripalpebral purpura strongly suggests amyloidosis. Patients may develop raccoonlike dark circles around their eyes following any procedure that parallels a prolonged Valsalva maneuver. The capillary fragility associated with amyloidosis may account for this observation. In the past, this correlation was observed

when patients underwent rectal biopsies to make the diagnosis.

The most widely accepted schema for the diagnosis of multiple myeloma uses particular combinations of laboratory, imaging, and procedure findings as diagnostic criteria.

Causes

A study by the Mayo clinic found multiple myeloma in 8 siblings from a group of 440 patients; these 8 siblings had different heavy chains but the same light chains. Ongoing research is investigating whether human leukocyte antigen (HLA)-Cw5 or HLA-Cw2 may play a role in the pathogenesis of multiple myeloma. Case-controlled studies have suggested a significant risk of developing multiple myeloma in individuals with significant exposures in the agriculture, food, and petrochemical industries. Long-term (>20 y) exposure to hair dyes has been tied to an excessive risk of developing multiple myeloma.

Radiation

Radiation has been linked to the development of multiple myeloma. In 109,000 survivors of the atomic bombing of Nagasaki during World War II, 29 died from multiple myeloma between 1950 and 1976.

Web MD Link: <http://emedicine.medscape.com/article/204369-overview>



Amyloidosis infiltrating the tongue in multiple myeloma.

How Strong Is The Evidence For Controlled Demolition?

“What is especially striking in the collapse of both towers is the enormous volume of material being ejected early in the collapse, and the quantity of shattered steel thrown out ahead of the dust clouds. Much of this broken steel consists of neatly chopped one-story long pieces of the perimeter columns, 14” square steel box columns that are assembled in three-story sections. These columns are also welded to 52” deep plates along each floor, but have somehow been broken free of these at the same time they are chopped up and ejected at high speed.”

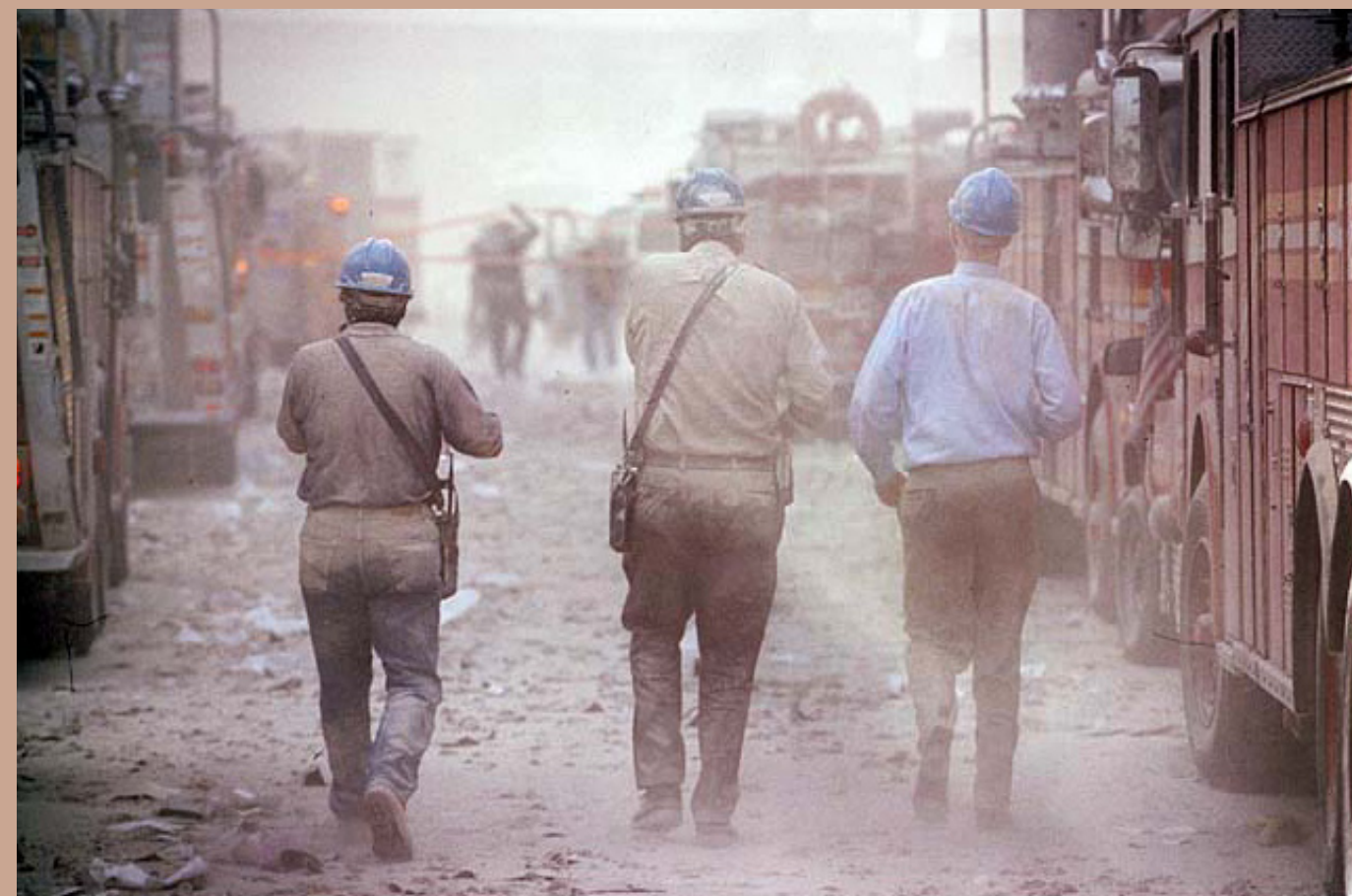
The evidence for controlled demolition is actually overwhelming. From the unexplained heat to the re-generation of particulates spoken of by Dr. Cahill, and another 100 anomalies, the entire world recognizes this event as controlled demolition. The only people refusing to acknowledge controlled demolition are the Disinformation Media, Government Talking Heads and individual civilians that either never bothered to investigate beyond what they actually saw that day or have difficulty reading. Oh, and Americans. If you go to Egypt or Germany, France or other foreign countries, they know. There’s been more written on the subject of 911 debunking the debunkers than there has been on Fluoride or Aspartame, subjects with very similar mythical shrouds.

The world knows. My friends that visit Egypt, that live in Pakistan, that spend time in India, France, Spain and other countries come back and tell me, “*it’s common knowledge that 911 was a controlled demolition by elements in the US government and others,*” but here in the US the truth is still obfuscated well.

911 has a mammoth supply of solid science, chemistry, mathematics and physics supporting a variety of obviously accurate assertions, however horrifying those assertions may be.



Bill Biggart died on 9/11 but his camera lived to tell the story of dust. Not everyone has seen Bill's pictures so here are just a few that describe the horror accurately, from Dust.



"MILITARY EC-3 RECON" PHOTO OF WORLD TRADE CENTER SITE
You'll be looking straight down, the Hudson River at top, scroll down
for Ground Zero

The Blast Signature

Now we'll explore the blast signature; we compare photographs and the physical characteristics of the collapse of the World Trade Center with photographs and the known characteristics of underground nuclear detonations and explosions on the next few pages. This part is not rocket science. It's common sense.

Examine the photographs carefully in this section. Take your time and look at each photograph as an investigator would. Look closely. Pay attention to details.

We will see that underground nuclear demolition and the World Trade Center demolition are very similar and that the pulverization of the towers into fine dust and gravel is consistent with the effects of an underground nuclear explosion in the basement of the buildings.

The photographs on the following page show the very violent nature of the World Trade Center demolition. The building does not simply topple and collapse – it is torn to smithereens in a fountain of debris. Clearly, a very large source of energy is at work here.

The Sedan Test

The Sedan Test (following pages) shows the *main cloud* rising into the air while the *base surge* starts to roll across the ground. Material is ejected at high velocity in all directions. We see the same pattern of high velocity ejecta jets firing vertically upwards, with the main cloud starting to rise above, as well as the base surge, in the World Trade Center demolition.



Horizontal Layers



This image, by Bill Biggart, shows the entire building (on right) engulfed in a cloud of dust from top to bottom. The building is milliseconds into collapse, about to fall at almost free-fall speed and the camera catches a split second we normally wouldn't see.

From the book titled, "The Effects of Nuclear Weapons," written by the US Department of Defense and the Energy Research and Development Administration in 1977:

"If the tension exceeds the tensile strength of the surface material, the upper layers of the ground will spall, i.e., split off into more-or-less **horizontal layers**. Do you see the **horizontal layers** created by an underground nuclear detonation in the smoke at top right, above?"

The buildings, anchored to the ground by core columns, were essentially a part of the ground, like a finger of rock extending up from the surface of the earth. They were destroyed, demolished, just like the ground right above any underground nuclear demolition.



Here, we can clearly see the expansion of a pyroclastic cloud across the city impeded by buildings and following the trajectory of the city streets. This is the ground surge of an underground nuclear demolition.



The advancing ground-level cloud of super-heated dust and debris carried by the force of the wind engulfs Lower Manhattan. There is a wealth of testimony from people fleeing for their very lives who spoke of looking back and seeing people “vaporized” where they were standing. Cars were reported to have spontaneously burst into flames. Sections of the buildings, weighing tons each, were ejected 100s and 100s of feet often landing in previously undamaged structures several blocks away. Look closely, these clouds are boiling hot.



As this terrified woman was running pell-mell away from the first collapsing tower – her hair, coat and feet on fire – Ms Ondrovic witnessed vehicles parked along the street spontaneously erupt into flames.

Then there's this other chap Connie knows ("a famous author") who'd interviewed another woman who had witnessed "*people engulfed in some sort of fireball and disintegrating.*" Connie just dug up the following note from this person to her, and is checking to see if I may get in touch with him directly.

"I interviewed a Red Cross worker in Dallas whose name escapes me at the moment but I have her report in my files. She told me she was sent to NYC by the Red Cross to help survivors of the WTC. She said the thing that most stuck out in her mind after interviewing dozens of people was the number that told her of looking back and seeing people engulfed in some sort of fireball and disintegrating.

This is the signature of a nuclear event.

The cloud advanced across the city with rapid speed. This longer view shows just how big the 'base' of the demolition explosion actually was. It covered the entire southern portion of the island of Manhattan.



The Sedan Test

The Sedan Test shows the *main cloud* rising into the air while the *base surge* starts to roll across the ground. Material is ejected at high velocity in all directions. An underground explosion will eject material in the desert whereas under a building it will cause portions of the building to eject, as we see in the World Trade Center demolition. We see the same pattern of high velocity ejecta jets firing vertically upwards, with the main cloud starting to rise above, in the World Trade Center demolition.





This enlarged image from video shows even more clearly the enormous explosion of energy directed vertically upwards into the air directly above the tower. The tower certainly does not just collapse from the bottom up, as the melted columns theory pretends. It doesn't simply blow down from top to bottom from demolition charges either. It does far more than that. It erupts vertically upwards like a volcano. There is only one explanation for what can be clearly seen here. The immense pressure of an enormous explosive force that pulverized the tower and propelled it upwards like a volcano blowing its top, is nuclear.

This upward volcanic ejection combined with the downward pulverization is consistent with an underground blast pressure wave traveling up the steel structured tower, hurling the top of the tower vertically upwards a bit when it reaches the top and then pulverizing the tower to dust as it is reflected back down the steel structure, which acts almost like an antennae allowing the wave to ride the tower up and back down again.

The Sedan Underground Nuclear Demolition

There aren't that many images of the Sedan Underground Nuclear detonation. Here are three, I think. I can't be certain these are all Sedan but they came up on a search for Sedan. They are underground nuclear detonations nevertheless and they look exactly like what we saw in NYC on September 11th, 2001. The reason this looks exactly like the demolition of the Twin Towers is because the Twin Towers was a nuclear demolition.



The Nuclear Blast Sequence

The following sequence of pictures is revealing. It shows both the characteristic effect of the initial underground nuclear blast and then the hot plume rising upwards after the blast, again typical of an underground nuclear blast.

In the first photograph we see the Initial Burst of the nuclear explosion and then in the second image (top right) the Main Cloud starts to rise from the World Trade Center nuclear demolition. In the third image (bottom left) we see the Main Cloud or Plume continuing to rise up into the atmosphere where it is caught by the horizontal wind. In the final photograph we see the pyroclastic cloud Base Surge spreading in all directions across the ground.





Compare the World Trade Center plume to the plume from a shallow US government underground nuclear demolition. A powerful source of heat can be seen at work in the World Trade Center event, continuing to force dust up into the air in a pillar of rising smoke. It is plain to see from the most cursory inspection of the photographs of the World Trade Center that the collapse started with an extremely violent and high energy eruption of material from the building.

The ejection of material is comparable to a volcanic eruption. The pyroclastic flow of dust after the collapse is also typical of certain volcanic eruptions. The building did not simply collapse and implode as occurs during a controlled demolition. It certainly didn't collapse as one would expect if the central supporting columns had simply buckled or given way. The building in fact exploded violently and ejected pulverized concrete, steel and rubble in all directions, followed by pyroclastic flow of hot dust following the same pattern as the base of an underground nuclear explosion.

Clearly, the energy source responsible for this was enormous and far greater than that required to carry out a conventional controlled demolition by implosion. This was a nuclear demolition. An underground nuclear demolition. The following pages describe the effects of an underground nuclear blast and are reproduced from an on-line book titled, "The Effects of Nuclear Weapons," written by the US Department of Defense and the Energy Research and Development Administration in 1977. It is perhaps one of the best sources of information available on nuclear weapons. The particularly important points are found on the next page.

The Effects of Nuclear Weapons

by the US Department of Defense and the Energy Research and Development Administration - 1977

2.90 For the present purpose, a shallow underground explosion may be regarded as one which produces a substantial crater resulting from the throwout of earth and rock. There is an optimum depth of burst, dependent on the energy yield of the detonation and the nature of the rock medium, which gives a crater of maximum size. The mechanism of the formation of such throwout (or excavation) craters will be considered here. For shallower depths of burst, the behavior approaches that of a surface burst (2.18, 6.03 et seq.), whereas for explosions at greater depths the phenomena tend toward those of a deep underground detonation (2.101 et seq.).

2.91 When a nuclear weapon is exploded under the ground, a sphere of extremely hot, high-pressure gases, including vaporized weapon residues and rock, is formed. This is the equivalent of the fireball in an air or surface burst. The rapid expansion of the gas bubble initiates a ground shock wave which travels in all directions away from the burst point. When the upwardly directed shock (compression) wave reaches the earth's surface, it is reflected back as a rarefaction (or tension) wave. If the tension exceeds the tensile strength of the surface material, the upper layers of the ground will spall, i.e., split off into more-or-less horizontal layers. Then, as a result of the momentum imparted by the incident shock wave, these layers move upward at a speed which may be about 150 (or more) feet per second.

2.92 When it is reflected back from the surface, the rarefaction wave travels into the ground toward the expanding gas sphere (or cavity) produced by the explosion. If the detonation is not at too great a depth, this wave may reach the top of the cavity while it is still growing. The resistance of the ground to the upward growth of the cavity is thus decreased and the cavity expands rapidly in the upward direction. The expanding gases and vapors can thus supply additional energy to the spalled layers, so that their upward motion is sustained for a time or even increased. This effect is referred to as "gas acceleration."

2.96 *When the fallback from a shallow underground detonation descends to the ground, it entrains air and fine dust particles which are carried downward. The dust-laden air upon reaching the ground moves outward as a result of its momentum and density, thereby producing a base surge, similar to that observed in shallow underwater explosions. The base surge of dirt particles moves outward from the center of the explosion and is subsequently carried downwind. Eventually the particles settle out and produce **radioactive contamination over a large area**, the extent of which depends upon the depth of burst, the nature of the soil, and the atmospheric conditions, as well as upon the energy yield of the explosion. A dry sandy terrain would be particularly conducive to base surge formation in an underground burst.*

2.97 Throwout crater formation is apparently always accompanied by a base surge. If gas acceleration occurs, however, a cloud consisting of particles of various sizes and the hot gases escaping from the explosion cavity generally also forms and rises to a height of thousands of feet. This is usually referred to as the "main cloud," to distinguish it from the base surge cloud. The latter surrounds the base of the main cloud and spreads out initially to a greater distance. The main cloud and base surge formed in the SEDAN test (100 kilotons yield, depth of burial 635 feet in alluvium containing 7 percent of water) are shown in the photograph in Fig. 2.97, taken six minutes after the explosion.

There are some very important points to note here taken from the selections at the left side of this page.

First, when the compressive shock wave reaches the surface, it is reflected back. In this case "the surface" includes the Twin Towers. If the tensile forces exceed the tensile strength of the ground, it will spall – i.e. peel off in horizontal layers and in fact be pulverized, literally torn apart.

The Twin Towers can be considered to be essentially a finger of rock extending up into the air, integrally bound into the earth at the base by the concrete foundations and structural supports anchored to the bedrock. The core columns were anchored directly to the bedrock. The shock waves generated by the nuclear blast would travel up the steel and concrete structure in much the same way as through the earth itself, with the effects of the blast seen at the top of the rock pillar or skyscraper instead of on a wide expanse of ground as in a normal nuclear test – for the simple reason that this bomb was exploded below ground, below the base of the skyscraper.

We would therefore expect to see the reflected shock wave spall layers from the building or "artificial rock pillar" from the top as it travels back down to the bottom.

This is indeed exactly what was witnessed. The building vaporized from the top down at high speed. At 150 feet per second for the shock wave, this would take about 9 seconds to travel from top to bottom of the 1360 feet high towers. The towers fell in 8 seconds and 10 seconds, approximate, respectively. Therefore, the speed of the collapse is in the right order of magnitude that would be expected if it was generated by an intense subterranean shock wave.

Secondly, a cavity is formed by the underground nuclear blast. We know that the World Trade Center rubble fell into an enormous cavity. The original space excavated for the foundations was of course filled in to a degree with concrete foundations, heating and cooling equipment, maintenance equipment and constructions of various types, so where did this cavity or pit come from? The existence of this underground cavity is also indicative of a large underground nuclear explosion.

Thirdly, the descriptions and Sedan photographs of the Base Surge and Main Cloud from an underground nuclear blast correspond precisely with what was seen at the World Trade Center.

I would encourage those interested in further research on this fascinating subject to carefully examine the wealth of data from the Trinity Atomic Web Site at the link below. We will be dealing with cancers related to radiation in NYC for many years to come.

<http://www.cddc.vt.edu/host/atomic/nukeffct/index.html>

Pulverization Of The World Trade Center

Eyewitness Accounts by Rescue Workers

A very important piece of evidence is the eyewitness accounts of rescue workers that very little solid concrete rubble remained. An estimated 90-100,000 tons of steel per tower and an estimated 200,000 tons of concrete per tower was literally pulverized into dust, sand, and micron sized particles – an absolutely unprecedented event.

This indicates that the forces on the concrete were so high that they exceeded its tensile strength and literally tore it apart. The tensile strength of a material is simply the amount of force per unit area required to stretch it apart and break it. While concrete is quite strong in compression – in other words, one can “squash” it into itself with a very heavy load – it is very weak in tension, it one tries to pull it apart.

In the description of underground nuclear blasts on previous pages, it is described how if the forces produced by the shock wave generated by a nuclear blast exceed the tensile strength of the ground, the ground will literally be torn apart in horizontal layers as the wave travels through it.

Whatever could pulverize the concrete of the World Trade Center into dust must have been a tensile force of enormous proportions – and a force that was applied throughout the whole building equally and almost instantaneously, so that it could free fall without support from below to slow the fall.

Certainly, a nuclear blast detonated within the concrete foundations of the World Trade Center would send a massive shock wave up the structure of the building and back down again at over 150 feet per second, pulverizing it in its entirety almost immediately. As we saw previously, the time-scale matches with that observed for the collapse of the towers. The figure of 150 feet per second will vary depending on the type of ground strata, but in many ways concrete can be considered to be artificial stone and rock.

On July 30th, 1995, Brigadier General (ret.) USAF Benton K. Partin published an analysis of the bomb damage to the Alfred P. Murrah Federal Building in Oklahoma, in which he proved that the building had been destroyed by a controlled demolition, not by a relatively weak ammonium nitrate truck bomb.

In his analysis, he makes the following observations:

“By contrast, heavily reinforced concrete structures can be destroyed effectively through detonation of explosives in contact with the reinforcing concrete beams and columns. For example, the entire building remains in Oklahoma City were collapsed with 100-plus relatively small charges inserted into drilled holes in the columns. The total weight of all charges was on the order of 200 pounds. The detonation wave pressure (1,000,000 to 1,500,000 pounds per square inch) from a high detonation velocity contact explosive sweeps into the column as a wave of compressive deformation. Since the pressure in the wave of deformation far exceeds the yield strength of the concrete (about 3,500 pounds per square inch) by a factor of approximately 300, the concrete is turned into granular sand and dust until the wave dissipates to below the yield strength of the concrete. This leaves a relatively smooth but granular surface, with protruding, bare reinforcement rods, a distinctive signature of damage by contact explosives. (not seen at WTC) The effects of the contact explosives on the reinforcement rods themselves can only be seen under microscopic metallurgical examination. (The rods are inertially confined during the explosion and survive basically intact because of their much higher yield strength and plasticity.”

Partin tells us therefore that a very small amount of high explosive is required to demolish a building if it is in contact with the concrete structure but that even conventional explosives don't have the thermal energy required to cause the complete pulverization of the Twin Towers.

It is the compressive shock wave travelling through the concrete that destroys it, turning the concrete into granular sand and dust. In the case of the World Trade Center, shaped cutting charges were also applied to the steel structure to cut it. Even though pre-stressed steel reinforcement rods are inserted into concrete to improve its tensile strength, these are useless when faced with a tensile or compressive shock wave of this magnitude.

Therefore, we can see how devastating the effects of a small nuclear device of even a few tons TNT equivalence would be. No matter how imposing and invulnerable the structure of the World Trade Center may look, the concrete would simply turn to dust under the impact of a shock wave that exceeds its yield strength by a factor of 300 or even much more.

We also know there was a shock wave of Richter 2.3 from the impulsive spike recorded at the Palisades Earth Observatory, which was the equivalent of at least 2 to 5 tons (5,000 - 10,000 pounds) of TNT.

Pyroclastic Flow

The USGS Report, eyewitness accounts and hundreds of photographs and video show that as the Twin Towers collapsed, an enormous dust cloud rolled out over the ground in a pyroclastic flow. Eyewitness accounts told of hot dust racing down the streets, sizzling as it went, setting combustible material on fire. This is exactly what one observes in the Base Surge from a shallow underground nuclear blast – a high speed surge of material, pulverized and vaporized by the atomic blast, spreading out at high speed in all directions across the ground as a plume rises thousands of feet into the air. This was the nuclear demolition of New York's Twin Towers and Building Seven, in the heart of the largest and most populated metropolitan financial center in the world and still, few people know the real truth.



The physical appearance of the World Trade Center collapse (photos this page) is similar to and consistent with what one would expect from an underground nuclear demolition. The same key physical markers are seen: a violent and explosive initial burst, followed by a strong upwardly rising plume or main cloud and a pyroclastic rapidly moving and heated base surge across the ground.

The photographs of the initial burst are incontrovertible proof in themselves that an extremely violent explosion took place, far greater even than in a conventional implosion demolition using fast-burning fuel efficient energetic compounds or explosives. The energy analysis presented earlier shows that the energy required to turn the concrete into dust exceeded the gravitational potential energy of the buildings and the thermal energy of the fuel in the alleged planes by many orders of magnitude. A nuclear detonation is the only explanation for the total differences in thermal capacity shown in this report.



Explosions In The Basement First-Hand Accounts Of Underground Explosions In The North Tower

This article from Chief Engineer magazine presents an eyewitness account, a staggering account, of the moments after the first plane crash, and describes evidence of large explosions in the lobby, parking garage and subbasement levels of World Trade Center One at the time of the crash, before, during and after.

It contains some fascinating first-hand accounts of the events of September 11th as recounted by operating engineers on the scene. One of the most remarkable is the story of Mike Pecoraro, who was working in the 6th subbasement of the North Tower when the first plane hit. Here are some excerpts:

Stationary Engineer Mike Pecoraro

At about 6:45am he went to the mechanical shop in the second subbasement, ate his breakfast and chatted with his co-worker who were also arriving at the normal 8:00am beginning of their shift. Mike's assignment that day would be to continue constructing a gantry that would be used to pull the heads from the 2,500 ton chillers, located in the 6th subbasement level of the tower. 49,000 tons of refrigeration equipment were located in the lower level of the tower. The 2,500 ton units were the smallest in use.

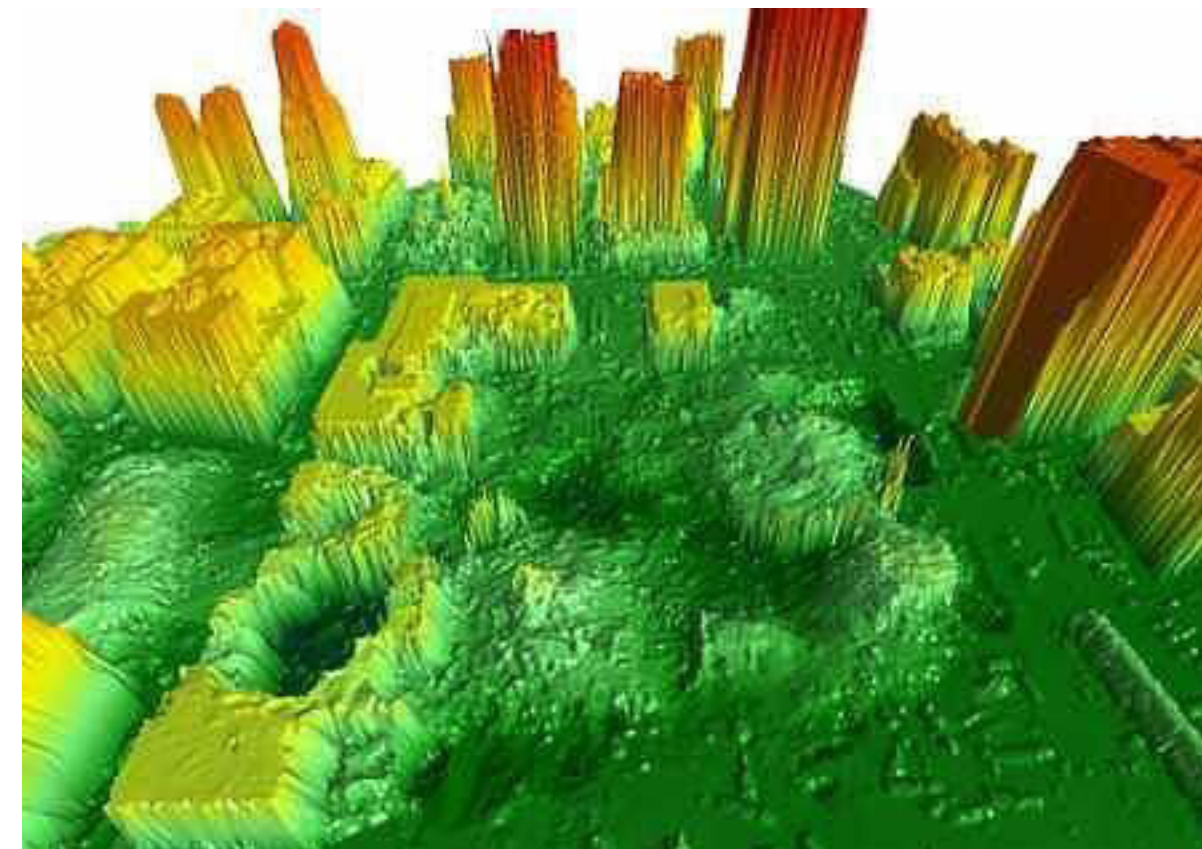


Deep below the tower, Mike Pecoraro was suddenly interrupted in his grinding task by a shake on his shoulder from a co-worker. *"Did you see that?"* he was asked. Mike told him that he had seen nothing. *"You didn't see the lights flicker?"* his co-worker asked again. *"No,"* Mike responded, but he knew immediately that if the lights had flickered it could spell trouble. A power surge or interruption could play havoc with the buildings equipment. If all the pumps trip out or pulse meters trip, it could make for a very long day bringing the entire World Trade Centers equipment back online.

Mike told his co-worker to call upstairs to their Assistant Chief Engineer and find out if everything was all right. His co-worker made the call and reported back to Mike that he was told that the Assistant Chief did not know what happened but that the whole building seemed to shake and there was a loud explosion. They had been told to stay where they were and "sit tight" until the Assistant Chief got back to them. By this time, however, the room they were in began to fill with a white smoke. *"We smelled kerosene,"* Mike recalled, *"I was thinking maybe a car fire was upstairs,"* referring to the parking garage located below grade in the tower but above the deep space where they were working.

The two decided to ascend the stairs to the C level, to a small machine shop where Vito Deleo and David Williams were supposed to be working. When the two arrived at the C level, they found the machine shop gone.

"There was nothing there but rubble," Mike said. *"We're talking about a 50-ton hydraulic press – gone!"* The two began yelling for their co-workers but there was no answer. They saw a perfect line of smoke streaming through the air. *"You could stand here,"* he said, *"and two inches over you couldn't breathe. We couldn't see through the smoke so we started screaming."* But there was still no answer. The two made their way to the parking garage, but found that it, too, was gone. *"There were no walls, there was rubble on the floor, and you can't see anything,"* he said.



They decided to ascend two more levels to the building's lobby. As they ascended to the B level, one floor above, they were astonished to see a steel and concrete fire door that weighed about 300 pounds, "wrinkled up like a piece of aluminum foil" and lying on the floor. "They got us again," Mike told his co-worker, referring to the terrorist attack at the center in 1993. Having been through that bombing, Mike recalled seeing similar things happen to the buildings structure. He was convinced a bomb had gone off in the building.

Consider the implications of what Mr. Pecoraro describes: at this point the only overt damage to the building was the alleged plane crash some 95 floors above, which could not have caused violent explosions underground. There is an extremely technical forensic evaluation and investigation of the elevators in the towers and without providing that report here the results were conclusive that fuel from the alleged planes could not have reached the lower basement levels. The configuration of the elevator shafts simply prevented this from happening.

Since the towers were anchored at the base to the bedrock the shaking caused by the crash would have been closest to the crash site, getting progressively weaker as it approached the rigid attachments at the bottom.

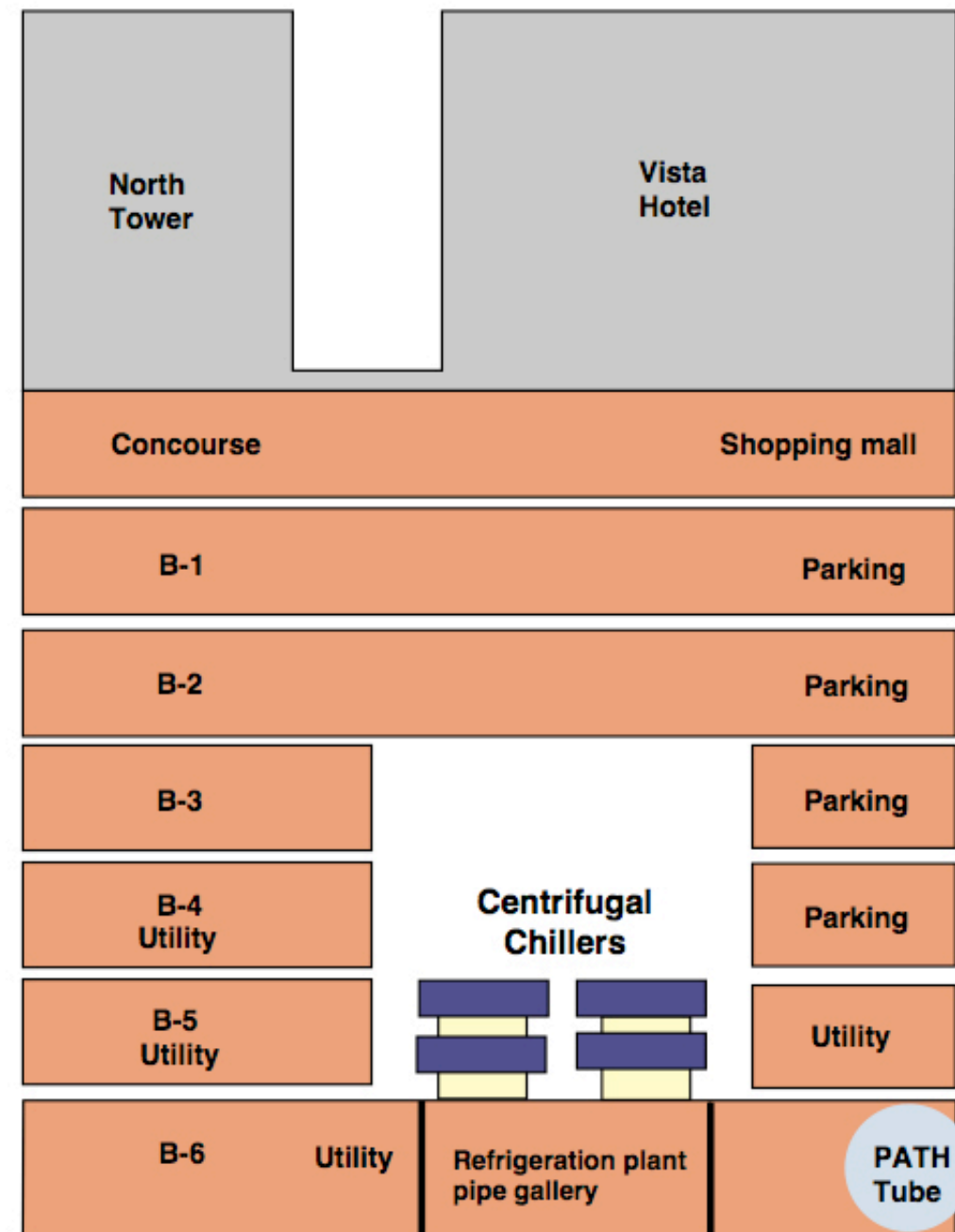
Yet the underground damage he describes can not have been the result of a mere shaking – nothing short of an actual explosion could reduce the contents of a machine shop to rubble. The Palisades Earth Observatory recorded ML 0.9 and 0.7 spikes at 8:46 and 9:03 which are far too high to be accounted for by the alleged aircraft crashes – given we know that a 0.5 ton urea nitrate bomb in the World Trade Center basement in 1993 produced no seismic signal at all at the Palisades Earth Observatory. Given that, how could alleged aircraft impacts 95 floors above register such high Richter magnitudes? These reports of underground explosions are corroborated by the seismic record. In fact, it's the other way around; the seismic record shows there was a very powerful explosion under each tower at the same time as each alleged aircraft impact. Mike Pecoraro gives us an eyewitness account of what the seismic record has already proven.

The refrigeration plant actually consisted of seven 7-thousand ton centrifugal chillers to provide air conditioning to 10 million square feet of office space in the World Trade Center complex, with an additional two 2,500 ton "piggy back" units. The chillers produced chilled water (from the Hudson River) to run the air conditioning. The 7 main units were located mid way between the two towers in sublevel B5, a level 3 stories high.

Apparently, the peak cooling load of the World Trade Center complex was 29,000 tons leaving 25,000 tons for "standby." This seems rather high, particularly since air conditioning is only required in the summer. A separate auxiliary condenser water cooling system with a capacity of 3,600 tons was used to supply year round air conditioning for the permanent loads such as mainframe computers and other needs.

Therefore, for half the year 54,000 tons of water chilling capacity was standing idle and during the summer, the peak load – not the continuous load – only used 54% of the systems capacity.

So, there exists a possibility that this refrigeration plant had at least some spare over-capacity and would be ideally suited to provide chilled coolant water for a thermal Light Water reactor possibly located beneath the towers. This report suggests this only as an alternative to a pre-planned underground demolition plan based on original construction design and this report, while proving fission in New York City on September 11th, 2001, makes no assertions of precisely what caused the nuclear demolition although this second theory holds less validity since the towers collapsed separately, apart and individually and nuclear bombs seem more likely. This question will remain unanswered.



A Fascinating Interview With Mark Loizeaux, Owner & President of Controlled Demolition, Incorporated

Comments By Mark Loizeaux

What Sort Of Explosives Do You Use Now?

In the 24th of July 2004 edition of New Scientist an interview appeared with Mark Loizeaux, President of Controlled Demolition, Inc. Mr. Loizeaux is one of the worlds leading experts in the art of demolishing buildings. This is a very illuminating interview with extracts quoted below.

Baltimore Blasters
New Scientist volume 183, issue 2457
24 July 2004, page 48

<http://www.newscientist.com/article/mg18324575.700-baltimore-blasters.html>

How do you make a building dance down the street? Or walk sideways? It's the kind of control that only a master of blasting and demolition like Mark Loizeaux could pull off. He's head of Controlled Demolition Incorporated, the company known to everyone with something difficult to demolish. Since his father Jack set up the company, the family has brought down or blown up 7,000 structures ranging from bridges to weapons, everywhere from the US to Argentina via Iraq. Liz Else talked to him within earshot of the rest of the family at CDIs headquarters deep in the peaceful countryside north of Baltimore. Mark Loizeaux took a degree in business administration at the University of Tennessee, where he also studied architectural engineering. Apart from "never having done anything constructive in our entire history," the Loizeaux family set many world records, including imploding the largest single building (the J.L Hudson department store in Detroit, 134 meters tall and 200,000 square meters). Other major blasts starred in movies such as Mars Attacks!, Lethal Weapon 3 and Enemy Of The State.

Planned To The Last Millisecond?

Completely planned. It has to be the right job in the first place, the right explosive, the right pattern of laying the charges, and sometimes, which sounds odd, **the right repairs to bring it down as we want**, so no one or no other structure is harmed. And by differentially controlling the velocity of failure in different parts of the structure, you can make it walk, you can make it spin, you can make it dance. We've taken it and moved it, then dropped it or moved it, twisted it and moved it down further – and then stopped it and moved it again. We've dropped structures 15 stories, stopped them and then laid them sideways. We'll have structures start facing North and end up going to the Northwest to avoid hitting something.



Doug (left) and Mark Loizeaux carefully place the explosive and stemming in each hole for the test blast at Three Rivers Stadium on the banks of the Ohio River on a cold January morning.

In a little less than a month, it would make way for a new Steeler's stadium.

There are two types of explosives – low order and high order. Low makes a slow heaving explosion, which pushes more than it shatters. We tend to look for a shattering explosive because we want to instantaneously remove the structural integrity of whatever we're working on. So we would opt for nitroglycerin or NG-based dynamite. With

a steel structure we use something called a linear shaped charge that concentrates the force of a high explosive called RDX. For example, it took 80 pounds of shaped charge to bring down two New York gas tanks built with 5 million pounds of steel. Few people would be able to do that kind of reckoning, they'd rely on computers.

This is where I really struggle and it may have something to do with bad synapses or something, I don't know what it is, but I really have a problem with it. I like computers. I think CAD (computer-aided design) has revolutionized construction and safety of structures worldwide for people in differing environments and circumstances. But CAD is used for putting things together where you specify the steel, the concrete, you assume construction methods within parameters of building codes. You assume it was put in using health and safety approved methods and inspections. It does not allow for weathering, structural fatigue, modification, all the things that don't show up on blueprints.

Is Demolition Too Different A World?

Yes. You move into a different category of structures that is distressed – failed yet standing structures that have failed as functioning structures because they break building codes or have been burnt, struck by lightning or tragically these days bombed or hit by planes. And it frightens me that would-be advancers of the demolition arts think that they can take a program – which is entirely contingent on the data put into it – to analyze what is going to happen in a structural system which is beyond definition. It can be bracketed, it can not be defined. When you design a building you can specify each and every variable, but that is not the case in structures that have endured a life.

You Sound Like You Develop A Sort Of Sixth Sense For The Job?

I think that's possibly true. Obviously a lot of it is technical and based on evidence – like picking the job by looking at photographs, talking to people, going there and so on. But even then, there is a feeling and some of them are not right for a number of reasons you can't always articulate – **including customers who don't seem right.**

Were You Involved With The 911 Clean-Up?

Our crews worked with one of the main contractors after 911, to pull the shards of skin of the building from the south tower of the World Trade Center, out of this 15 storey gash in the side of the Deutsche Bank building.

When You Watched 911 Did You Imagine That The Towers Would Come Down Like That?

I did a report on the World Trade Center when I was at college and I knew exactly how it was built. I understood the concept. When I saw the first plane hit, my mind first went to: *“Oh my god, what’s happened? Is it a plane, a private plane?”* But I was watching along with most of the western world when the second plane hit. And everything changed. When I saw what hit, that it was an airliner, that it was loaded with jet fuel, I remembered the long clear span configuration from the central core to the outer skin of the World Trade Center from the report I did. And we had just taken down two 40-story structures in New York...

I still had some cell phone numbers so when the second plane hit I said: *“Start calling all the cell phones, tell them that building is going to come down.”* It was frenetic, nobody could get through even with speed dialing. And I just sat there, just sat there. Of course Building number 7, which is where the emergency management headquarters was, was on fire. I’d been in that office two months before. And I sat there watching, I picked up the phone and I called a couple of people on the National Research Council Committee involved in assessing the impact of explosives. They said, *“What do you think this is, that they’re going to fall, they’re both going to fall?”* The expression going around was that they’re going to pancake down, almost vertically. And they did. It was the only way they could fall. It was inevitable. And it was horrific.

Could They Have Been Built In Such A Way That They Would Have Withstood The Impact?

Bad question – they did withstand the impact. The correct question is could they have been built to withstand the consequences, the fire? Asked about whether the buildings could withstand fires Loizeaux replied, *“I’ll defer to the reports coming out, but I will say – is society willing to pay for it? It’s far cheaper to take the battle to terrorists than let them bring it to us.”* When asked about success Loizeaux replied, *“We have an enviable record. No one has been killed as a result of our explosives demolition operations – though we have had to stop people hiding in dangerous places to get good pictures – **one even disguised himself as a bush.**”*

Yet You’ve Worked In Many Environments?

Oh, yes. Right now we are working at a nuclear plant in Maine, and one in Massachusetts, and getting ready to start one in Connecticut. We’re working on nuclear facilities in Colorado Springs, and at Hanford in Washington State.

Let’s Ask Some Pointed Questions And Examine This Interview With Mr. Loizeaux

1. Someone disguised himself “as a bush”? Not in a bush or behind a bush but as a bush! Think about that carefully for a few minutes, please. Someone disguised himself “as a bush”!



The column pictured shows the effects of the test blast. The blast caused the rebar within the column to vibrate and bend outwards allowing the concrete to pulverize.

2. What are the coincidental chances of Mr. Loizeaux of Controlled Demolition Incorporated being one of the very few people in the world who saw the first alleged plane hit, Live? And he thought it was a private plane – a small aircraft? Who asked Mr. Loizeaux to be in that very place on that very day?

3. He had been in the Emergency Management Center Building 7 two months earlier. Doing what? Planning for what emergency? At whose instigation and request?

4. Why did he start calling people on the NRC who assess the impact of explosives after the second alleged plane hit? Surely he would want to talk to people who deal with kerosene fires (JetA fuel is similar to kerosene), aircraft crashes, etc?

5. What does he mean by *“customers who don’t seem right”*? How could you get such a customer in his business – insurance fraudsters? People who might want to pick his brains on how to demolish the first ever steel structured 100+ story Twin skyscrapers? Clearly, it is such a black art, demolishing a building, that it absolutely requires someone with experience – it cannot be planned analytically or with computer modeling alone. One must account for age, fatigue, new constructions and remodeling and objects and structural elements that aren’t on final blueprints, right?

6. *“The right repairs to bring it down as we want”*. There have been credible reports from more than one source that work was being carried out on the Twin Towers in the weeks just prior to and even in the months before the collapse, including

ostensible “repair work”. Some of the central elevators were apparently always out of commission during the preceding weeks. Was this actually preparation to demolish the towers? Mr. Loizeaux says he was intimately familiar with the building. Were his brains tapped to find out how to do it, pretending it was to protect against a terrorist attack? Was Mr. Loizeaux somehow more intimately involved? How did he get contracts to work at 5 nuclear plants?

7. Mr. Loizeaux uncharacteristically dodges the question about whether the World Trade Center should have withstood the fire – while answering every other question in broad detail defining his expertise in building demolition. And in mid-2004, 3 years later, what “reports coming out” is he referring to? There have in fact been no thorough and candid engineering analyses carried out into how the buildings collapsed (besides this one) – only a Fairy Tale about jet fuel melting 46 central steel core columns and turning the buildings to dust.

8. Mr. Loizeaux comments that, “*We want to instantaneously remove the structural integrity of whatever we’re working on.*” This **IS** what occurred with the World Trade Center.

Therefore, Mr. Loizeaux makes a number of interesting comments about the World Trade Center and the controlled demolition of buildings in general. Is he whistleblowing? Giving people in what has become the “911 Research Community” some useful hints and pointers? From what he says, it is clear that anyone intent on carrying out an illegal or clandestine (also illegal) controlled demolition of a building would require the advice of an expert on how to do it. The best way to obtain that advice would be under a pretext of some sort, such as security planning. The World Trade Center had already been bombed twice, unsuccessfully, something few people address, ever. Therefore, to ask CDI for their advice on the consequences of another bomb attack and how a “terrorist” would have to do it to be successful, so that security could be put in place against it, would seem like a sensible precaution. They might ask CDI where charges would need to be placed, so that security cameras could be installed to cover those locations. This was already a bomb-damaged building, so again it would be necessary to approach an expert and it would seem sensible to CDI to ask for their expert advice.

Indeed, one feature that has been remarked upon is just how small many of the pieces of the steel beams were. They had been cut into 18-foot long sections by cutting charges. This seems like overkill. It lends support to the idea that the demolition was not in fact carried out by experts but in order to make absolutely sure of a successful operation excess use was made of cutting charges by less experienced people. We know the demolition was a nuclear event and we also know some type of cutting charges were used. What does Mark Loizeaux know?



Above, the sand for Three Rivers Stadium was prepared at CDI's Offices in Baltimore, Maryland and transported to Pittsburgh. Each 1 inch tube shown here was placed over the explosive (below) to concentrate the energy in the column. Each $\frac{3}{4}$ pound stick of Austin Powder's EX Gel was placed in the drilled column and then stemmed with sand. At left, from the test blast, the blasters learned the proper amount of explosive to use for the specific type of column. All columns can then be loaded and wired for the implosion. These columns are ready to be hooked together.





At left, Three Rivers Stadium on the banks of the Ohio River on a cold January morning. In a little less than a month, it would make way for a new Steeler's stadium. This view (at right) taken from nearly the same spot as the first picture, at left in this sequence, shows the success of the implosion with the new stadium still standing to the far left. No debris from Three Rivers came closer than 40 feet to the new stadium which was only 65 feet from the new stadium. The closest sections of the new stadium, constructed mostly of glass, required that the demolition be controlled so that flying debris (flyrock) would not reach it. Work to weaken the structure involved removing all non-load bearing walls. All of the 800 columns on the 5 levels of the stadium were entirely exposed so that they could be wrapped with 2 layers of chain link fence and a spun geo-textile material. The enormous piles of debris inside and outside of the stadium had to be removed before any work with the explosives could begin. Horizontal drilling (right, bottom) of the columns was begun immediately. The condensed time schedule required by the upcoming baseball and football seasons, required that the demolition contractor sometimes operate these drills around the clock. The implosion of Three Rivers occurred on Feb. 11, 2001 and produced minimal damage to the new stadium. One broken window, covered with a spun Geotextile material and a small chip of one of the concrete blocks on the new stadium floor was all that could be found. This is the work that goes into controlled demolition with energetic compounds and/or conventional explosives. 911 was a nuclear event and energetic compounds and conventional explosives are simply thermally inefficient to do what we saw, alone. One might say, since the Twin Towers were attacked twice previously, that this time they threw everything at it, energetic compounds, conventional explosives and nuclear to be absolutely certain and the third time *was* the charm.



Tom Sullivan worked for CDI about 10 years ago before and during 9/11, and he worked for CDI for almost 3 years. His roll with CDI was Site Photographer/Explosives Technician. He is also licensed by the FDNY to handle explosives. His explosives tech. duties included placing explosives in buildings to prepare them for demolition.

Sullivan worked on projects such as Seattle King Dome, Three Rivers Stadium, Philadelphia Naval Hospital, Key Span Gas Holders, among others. He also went to high-school with Doug Loizeaux of CDI as well. Sullivan has also published work in the book "Implosion" published by Black Dog Publishing.

In his talking points, Sullivan talks about some of the myths surrounding 9/11 on how certain things would have been discovered in the debris pile of the collapses if explosives were used at the WTC:

1.) One of the myths is that if explosives were used, there would be pieces of the casings or other physical evidence left behind from the use of explosives. Sullivan has stated that there is nothing left of the casings.

2.) Another myth is that miles of detcord would be found in the debris pile. On this point, Sullivan mentioned the remote-controlled detonators that have been in use for many years.

CDI has on their own website a section that talks about their own remote-controlled demolition capabilities called DREXS (Directional Remote Explosive Severance).

"In my opinion, even if detcord was used, there were thousands of miles of wiring, cabling, etc. in that debris pile. Detcord looks like any other cable to the untrained eye. And even with the detcord covered in and discolored by all the gray dust, it would be virtually indistinguishable from any other wiring or cabling in those buildings even to the trained eye, especially if you're not specifically looking for it. And I don't know anyone that was specifically looking for signs of explosives during cleanup," Sullivan said.

Sullivan has said there is no possible way those buildings could have collapsed the way they did from fire.

On a side note, CDI has denied any knowledge of Sullivan being employed by them. Thankfully, Sullivan has kept his credentials which were verified by AE911T. Sullivan's credentials were also verified by KPFA radio (Guns and Butter radio) for a segment that involved Sullivan.

Having had the privilege of speaking with Tom Sullivan, an actual explosive-charge placement technician, we have some new insights to pass along as to how controlled demolition works, where it started, and the effect that 9/11 had on the demolition industry. Sullivan gained his experience as an employee of the leading firm in this field, Controlled Demolition, Inc. (CDI). Sullivan stresses though "I do not in anyway represent CDI and what I have to say is based on my own experience and training,"



In full Hazmat suit, something not provided to all 911 Ground Zero workers, an unknown employee appears to be cleaning an automatic teller machine, some type of train or bus ticketing window or subway station window.

Sullivan notes that many weeks are required to "prep," or weaken the buildings before demolitions. Steel frame buildings don't just fall into their footprints at free-fall without major work throughout the building – even some before the placement of explosives. Sullivan emphasized as an aside, "Fire cannot bring down steel-framed high rises – period."

Sullivan stated that he knew from the first day that the destruction of World Trade Center Building 7 on 9/11 was a classic controlled implosion. Asked how he thought it might have been done he posited, "looking at the building it wouldn't be a problem – once you gain access to the elevator shafts... then a team of expert loaders would have hidden access to the core columns and beams. The rest can be accomplished with just the right kind of explosives for the job. Thermite can be used as well."

"Remote wireless detonators have been available for years. Look at any action movie – and of course the military has them. The reason most contractors don't use them is that they are too expensive – but in a project with a huge budget it would be no problem. As for the casings – everyone in the industry, including Blanchard, would know that RDX explosive cutter charges are completely consumed when they go off – nothing is left. And in the case of Thermite cutter charges, that may also be the case. Thermite self-consuming cutter charge casings have been around since first patented back in 1984."

We asked Sullivan if all the floors in WTC 7 would have to be loaded with explosives in order for a successful controlled demolition. He responded, "No, with steel framed buildings you really need only to load the bottom third to bring the building down. While at CDI we had a job in Hartford Connecticut, the CNG building, where we did just that. And it worked out beautifully."

And as Sullivan watched the towers collapse that day, like so many did, he pondered at how fast it all took place, and how suddenly and symmetrically they were brought down. "I knew it was an explosive event as soon as I saw it, there was no question in my mind," said Sullivan. Most of us agree – it's not by chance that the first tower just happened to collapse – then the second in the same manner. What convinced him completely is when he watched Tower 7 fall that day, "I mean, come on, it was complete destruction. I've seen buildings fall like that for years – that was the end game for me." Keep in mind that Sullivan did this for a living for several years – it is like second nature for him to see this type of demolition. If anybody would know, it should be him. But we went ahead and asked him, "Is there any chance that normal office fires (the official cause of the 'collapse') could have been responsible for the smooth, symmetrical, free-fall acceleration of building 7?" "Not a chance," he retorted. We just wanted to be sure.

When we asked him if he followed any of the 9/11 Commission hearings or that of the NIST reporting, he had the same answer for both "I have no tolerance for people who lie to me about what I know to be true. I threw my hands up in disgust and never watched another hearing after the first. As for NIST, I didn't even watch because I

knew what to expect.” He did however follow the final report on the collapse of Tower 7 and said it angered him that they could actually convince so many of their fraudulent claims.

A Closer Look At Controlled Demolition, INC (CDI)

CDI’s website states the following about their company “A two thousand ton skyscraper collapses like a house of cards, crumbling in on itself – a waterfall of well-fractured steel and concrete debris. It lasts only seconds, and buildings within a few meters stand untouched. The very essence of Controlled Demolition, Inc. is in our name: CONTROL.” Does that description provided in their website remind you of anything?

Their website also admits that sensitive foreign and domestic operations have been conducted with U.S. Governmental Agencies. Here is an excerpt from the “Government” section of CDI’s website. “Department of Defense (DOD) - Controlled Demolition Incorporated (CDI) has the appropriate experience and expertise to assist Department of Defense (DOD) agencies and contractors in demolition operations on sensitive projects, domestically and internationally. Through the support of our international network of offices and agent relationships, Controlled Demolition Incorporated can respond promptly for defense-related consulting and performance requests on short notice.”

They go on to say “Department of Energy (DOE)- Changes in the DOE’s mandate have called for the removal of thousands of structures at DOE sites spread across the United States. When fiscal constraints put pressure on site managers to increase decommissioning and dismantling without sacrificing safety of workers or the public, DOE officials looked for new technologies to make the transition. Controlled Demolition Incorporated’s (CDI’s) DREXS (Directional Remote Explosives Severance) and explosives concrete scarification and segmentation services can enhance production without sacrificing safety of operations.”

Tim Sullivan an Ex-CDI worker stated “*There is no possible way those buildings could have collapsed the way they did from fire.*”

It turns out CDI was subcontracted by Tully Construction for a \$35 billion dollar contract, for debris removal on the WTC site.

This was quoted from an email: The only sizably large pieces of debris left in the wreckage of the Twin Towers were steel beams that were around 30 feet or less – just the right size for easy removal by a flatbed trailer. Controlled Demolition, Inc.[CDI] – the company that received a reported \$35 billion for the cleanup of the WTC site – boasts on their website about their DREXS demolition technology, which conveniently segments buildings and other structures into sizes that match their clientele’s removal equipment. They also mention that their demolitions “facilitate the fast-track debris removal required by ODDC to meet the site clearance schedule”.



This picture is characteristic of a nuclear event.

The tipoff to this article and video evidence of CDI’s involvement on the WTC complex has been provided to us from an undisclosed source via tips@theintelhub.com. We are requesting any prudent information to be mailed to us so we can update this report. A big thank-you goes out to those brave individuals willing to come forward with Intel.

In the below video (at the web site) around 9:04 into it, a CDI employee stated on camera during a National Geographic shoot “That’s the biggest steel beam I’ve ever seen other than the World Trade Center”. Can you say oops?

Debris Mountain Starts to Shrink

These paragraphs provides important information for WTC demolition researchers, in particular because of the information about Controlled Demolition Inc., which (a) was apparently keen to have the debris removed and disposed of as soon as possible and (b) was able to come up with a detailed plan for doing so within eleven days of the collapse of the Twin Towers, suggesting that Controlled Demolition Inc. had detailed knowledge of the Twin Towers and the entire WTC complex prior to September 11th. The role of the U.S. Army in efforts to speed up the removal of the debris is also worth noting.

As hope of finding survivors dims more than two weeks after the Sept. 11 attack on New York’s World Trade Center, officials and contractors are concentrating new efforts on debris removal. But many don’t expect a quick pickup in the cleanup pace. There is concern about the proximity of underground debris to the Twin Towers’ foundation and continuing sensitivity to recovering human remains and critical evidence. Even so, participants are developing a site-wide debris management plan that includes removal of an estimated 300,000 tons of structural steel.

The core of what may become the cleanup master plan for the wrecked site in lower Manhattan was delivered to the city’s Dept. of Design and Construction Sept. 22 by implosion consultant Controlled Demolition Inc., of Phoenix, Md. The 25-page “preliminary” document of-

fers a host of debris-related concerns and removal ideas related to the site’s key collapsed buildings and outlines other project management issues, from site security and safety to contractor relations and off-site debris disposal.

CDI was initially retained by Tully Construction Co. Inc., one of the site’s four main cleanup management contractors, to assess debris removal in its sector that includes the former Two WTC and several smaller buildings. The site’s other contractors have also agreed to CDI’s involvement, with the goal of creating a site-wide master plan, says one contractor executive. “*This will await the official end of search and rescue,*” he adds. At ENR press-time on Sept. 25, neither Mayor Rudolph Giuliani nor city officials had made that pronouncement.

CDI contends that the progress of debris removal “must be subservient” to retaining the structural integrity of the slurry wall foundation. [This prevents flooding from the Hudson River.] “*The highest priority and the great challenge in this emergency is to support the slurry wall,*” says Mark Loizeaux, president.

The 1,000 x 500-ft foundation walls are intact, reports George J. Tamaro, lead engineer on the Mueser Rutledge team. Water inside seems to be related to rainfall and other sources, but is not river water, he says. Tamaro adds that there is “absolutely” a need for a slurry wall tieback system, but not necessarily all around the “bathtub,” which covers 7.5 acres.

Because the structures in the eastern half of the site are largely intact, CDI recommends them as the debris removal starting point. Above grade, the firm’s report recommends conventional wrecking methods to remove 4 WTC down to the slab. Conventional demolition of 5 WTC is not possible currently because it would get in the way of debris removal operations for the collapsed 7 WTC, which itself is a stand-alone operation. The report says some torch work will be necessary to isolate or downsize major structural steel debris. CDI recommends liquid oxygen-propane torches to avoid the “weld-back” of steel, which slows down operations.

Freestanding sections of the towers can “probably” be pulled over using cables and heavy equipment, says CDI. After the fall area is cleared, an excavator would progressively rock the freestanding element to build “accelerating harmonic response” until failure is achieved.

To accelerate progress, CDI also recommends attention to restoring transit service in the area and development of “a detailed sequence” for utility installation. The report also urges improvements in how project officials interact and communicate.

While site concrete was largely pulverized into fine dust, huge quantities of damaged structural steel lay in tangled heaps throughout the former 16-acre WTC site. “*I saw I-beams stacked six stories high,*” says Allen Morse, chief debris expert for the Army Corps of Engineers, a technical advisor to the Federal Emergency Management Agency. He says steel could make up to as much as half of the site’s estimated 1.2 million tons of wreckage. “*You can’t move machinery around unless you plan for it,*” adds Morse.

To accelerate steel removal, Weeks Marine Inc. has created two steel off-loading areas that ramped up operations last week to transport debris by barge for recycling. The sites are located at Pier 25 on the Hudson River and at Pier 6 at the tip of lower Manhattan. The city’s usual garbage removal facilities, which is handling smaller site debris, could not accommodate steel pieces.

Weeks was still dredging the Pier 25 site even as trucks began delivering steel to the site for off-loading by crane to barges that can hold up to 3,000 tons. “*That’s equivalent to 150 truckloads,*” says Weeks Senior Vice President George Wittich. Business was slow at first as truck-drivers maneuvered through the site and city streets and had to pass muster with FBI officials checking for evidence. One site source says security was beefed up after some drivers sold steel privately to scrap dealers. Does CDI know more?

Damage To The Slurry Wall

The World Trade Center “bathtub,” which keeps out the Hudson River, suffered so much damage on Sept. 11 that a new wall will have to be added before permanent rebuilding can occur, the engineer who designed the wall and leads the repair project said yesterday. Workers have currently reached about seven stories deep. As the debris removal project reaches lower and lower, workers are finding an increasing amount of water due to increased water pressure. Engineers have recorded leaks of 100 to 200 gallons per minute in places on the slurry wall. “*It’s an ongoing problem that every day we’re finding more leaks,*” said Pablo Lopez, an engineer with Mueser-Rutledge.

