

August 12, 2005

Tehama County Air Pollution Control District Hearing Board

Rick Gurrola

Air Pollution Control Officer

P.O. Box 38

Red Bluff, CA 96080

**Request for Hearing and Appeal of InEnTec Medical Services LLC Permit # 550
And InEnTec Medical Services LLC Permit #553.**

Citizens for Review of Medical and Infectious Waste Imports into Tehama County and Greenaction for Health and Environmental Justice hereby file this appeal of the permits issued to InEnTec Medical Services LLC by the Tehama County Air Pollution Control District and request that you hold a public hearing on this appeal.

The basis for the appeal and request for a hearing is that the Tehama County Air Pollution Control District erred in issuing the permits to Inentec Medical Services LLC without proper public or environmental review, without public hearings, without an Environmental Impact Report and due to procedural errors.

We request a full hearing before the Hearing Board, and we request that the hearing be held in the evening to allow the fullest possible participation of residents.

I. Petitioners:

The petitioners are Citizens for Review of Medical and Infectious Waste Imports into Tehama County and Greenaction for Health and Environmental Justice.

Citizens for Review of Medical and Infectious Waste Imports into Tehama County is a local community organization formed by concerned residents of Red Bluff and Tehama County, and is based in Red Bluff.

Greenaction is a non-profit organization that assists communities whose health is impacted or threatened by pollution. Greenaction is based at One Hallidie Plaza, Suite 760, San Francisco, California, and also works in dozens of rural, urban, desert and Indigenous communities across the country.

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II. Description of the project whose permit we appeal:

We appeal the permits #550 and #553 issued to InEnTec Medical Services, LLC by the Tehama County Air Pollution Control District. Their permit applications describe the “general nature of business or agency” as follows: “Electric Power Production using Natural Gas and Syngas from InEnTec Medical Service...” Their applications give two different addresses, one is 11425 Reading Road and the other application says 11500 Reading Road, and unless both addresses will be used, one of the permits would be invalid. The location of this proposed project is in Red Bluff, Tehama County, California. The permit applications state that the reason for the application submittal is “Build/install new emissions unit/process.”

III. Basis of the Appeal:

We appeal these permits and request the Hearing Board rescind the permits due to numerous serious and significant defects in the permit process including an inadequate review of the projects potential impacts.

A. InEnTec Medical Services LLC was not the applicant for permit #553 and cannot receive a permit that it did not apply for:

On July 13, 2005 the Tehama County Air Pollution Control District issued InEnTec Medical Services LLC permit #553 for emissions from a proposed internal combustion engine. However, InEnTec Medical Services LLC was not the company that submitted that application. That permit application was submitted by InEnTec Energy Services LLC (incorporated as Exhibit A),

a different entity with a different name. The Air District thus erred in issuing permit #553 to a company that never applied for the permit and permit #553 must be rescinded due to this error.

B. The Air District improperly reviewed and approved permits for this project as an Electric Power Production facility:

InEnTec Medical Services, LLC received permits from the Air District for projects described in the permit applications as “Electric Power Production facility.” (InEnTec Medical Services LLC permit application is incorporated as Exhibit B. Also see Exhibit A. See page 2, section D of both permit applications - Exhibits A and B - for description of nature of business as Electric Power Production). Although the permit applications specifically describe the general nature of the business as electric power production, in fact virtually all the information submitted by the applicant refers to treatment of medical waste, not power generation.

Supporting our analysis that this project would not truly and primarily be an Electric Power Production facility, Gary Bovee, Assistant Air Pollution Control Officer for the Tehama County Air Pollution Control District, confirmed in a telephone conversation with Greenaction’s Executive Director Bradley Angel on August 11, 2005 that the facility if built would generate only very small amounts of electricity and said “this is not a power plant.”

We have reviewed the documents submitted by the applicants to the Air District and there is no documentation that we have found in the Air District files from the applicants demonstrating the ability of this system to qualify as an electric power production facility. Virtually all of the information submitted by the permit applicants discusses the treatment of medical waste in a

plasma arc system manufactured by the parent company Integrated Environmental Technologies for waste treatment. Applicant did submit standard information about the Jenbacher engine, but we can find no data whatsoever documenting how much energy, if any at all, would be produced.

InEnTec clearly sees their technology as a waste treatment technology. The studies they have presented to the Air District and the Planning Commission address the supposed ability of the plasma arc technology and the company to treat a variety of wastes and the resulting air emissions. The company applied to the State Department of Health Services to request approval as a medical waste treatment technology, and that is how they primarily refer to their project and technology in other documents as well.

In the Project Description submitted by InEnTec Medical Services in support of their permit applications, the company describes the project in the first paragraph of the first page (incorporated as Exhibit C) as follows:

“The InEnTec Medical Services Tehama Project will receive and process medical waste materials and other non-hazardous controlled materials using the Plasma Enhanced Melter tm (PEMtm) gasification process.....”

In the second paragraph of their project description they do mention “electrical power generation” but there is no data or further discussion of this in this Project Description. In fact, in Appendix A of the same document, entitled Preliminary Facility Arrangement (incorporated as Exhibit D) the facility is called the “Red Bluff Medical Waste Treatment” – not “Red Bluff

Electric Power” project or any similar name. It is clearly designed as a medical waste treatment facility, not a power generation facility.

It was misleading and improper for the Air District to issue permits for an Electric Power Production facility when it is obvious and clear from the record that this instead would be a commercial medical waste treatment facility importing medical waste from far and wide.

Incorrectly characterizing this project as an electric power production facility also may have resulted in residents not paying attention to the issue or commenting on the permit application, as there is less concern for an electric power production facility than there would be for a commercial medical waste treatment plant.

As no data demonstrating the ability of this project to really be an “Electric Power Production facility” was submitted, as virtually all the data submitted related to medical waste treatment in a plasma arc unit, and due to the negative impact on the public’s right to know the nature of the project and comment on it, the Hearing Board should invalidate the two permits.

C. The Air District violated California law by approving these permits without an Environmental Impact Report:

Plasma Arc is an incineration technology and is thus subject to the State requirement of an EIR:

California Public Resources Code Section 21151.1 requires that permit applications for incinerators be subject to a full Environmental Impact Report under the California Environmental Quality Act (incorporated as Exhibit E).

The project is not exempt from the EIR requirements of Public Resources Code Section 21151.1 as the company has stated in writing they would initially be treating about six tons of medical waste per day (12,000 pounds), far above the exempt amount of 1,200 pounds per day. They admit they may treat far greater amounts in the future.

Plasma arc is an incineration technology, despite the claims of the company to the contrary. The United States Environmental Protection Agency defines plasma arc technology as follows (<http://www.epa.gov/OCEPAt/terms/pterm.html>):

“Plasma-Arc Reactor: An incinerator that operates at extremely high temperatures; treats highly toxic wastes that do not burn easily.” (incorporated as Exhibit F)

The incineration process occurs in the combustion of the waste gases created by the heating of the medical waste, and this fact is recognized both by the USEPA (see above citation) and other agencies. The combustion is not just of natural gas, but the medical waste being treated at this medical waste facility would be heated and the gases would then be incinerated.

The Tehama County Air Pollution Control District has seriously misinterpreted the requirements of Public Resources Code section 21151.1. In a letter to Greenaction for Health and

Environmental Justice dated July 13 2005 from Gary C. Bovee, Assistant Air Pollution Control Officer (incorporated as Exhibit G) the Air District claimed

“That section requires an EIR for certain projects involving “(t)he burning of...hazardous waste.” During our review of InEnTec’s proposed plasma enhanced melter (PEM), we have determined that the PEM does not “burn” hazardous waste within the meaning of section 21151.1.”

The Air District’s analysis to justify an exemption from this section of the Public Resources Code is incorrect. Public Resources Code section 21151.1 clearly does not just apply to hazardous waste, but includes other waste streams including medical waste.

The Air District cannot choose to exempt from CEQA and this code section’s requirements a project that clearly falls within CEQA and Public Resources Code section 21151.1. There is no doubt this would be a medical waste treatment facility using combustion (i.e. incineration) as an integral component of the waste treatment process, and thus the law’s requirements for an EIR apply.

The Air District erred in not requiring an EIR and the permits must be rescinded as a result.

D. The Air District did not accurately or thoroughly evaluate all potential emissions from this proposed project, and therefore the permits are invalid:

1. Problems with InEnTec’s own technology at commercial facilities were not properly evaluated:

In the United States, there have been to our knowledge only three commercial waste facilities using plasma arc technology, the Hawaii Vitrification Facility run by Asia Pacific Environmental Technologies, the Allied Technology Group facility in Richland, Washington and the Nuvotec/Pecos facility in Richland, Washington. We have been unable to acquire information about the Nuvotec/Pecos facility emissions, but further research is underway. However, there is a large amount of relevant and vitally important information about the other two facilities that has never been evaluated by the Air District despite the fact that this information was submitted to them by Greenaction prior to their permit decision. The problems at the Hawaii facility were not all paperwork issues as was claimed by an Air District official. According to the State of Hawaii Department of Health, the plasma arc suffered refractory damage that caused the plant to close for eight months recently – this was not just a paperwork problem. The Air District failed to investigate this refractory damage problem, thus failing to investigate how InEnTec’s equipment has operated in real life commercial operations similar to what is proposed for Red Bluff.

As both the Hawaii Vitrification Facility and the Allied Technology Group (ATG) facility have had major significant problems with the plasma arc technology, and as both of these facilities used IET/Inentec’s equipment, the experiences at these facilities are completely relevant and prove the potential for a significant effect on the environment from the proposed Red Bluff facility. This information has never been evaluated by the Tehama County regulatory agencies,

despite it being extremely relevant to an informed and proper decision. This information is discussed in depth below.

2. Emissions of Dioxin, a persistent and bioaccumulative toxic dangerous in minute doses of exposure, were not properly evaluated:

The fact that dioxin would certainly be emitted into the air from the plasma arc process should be enough to illustrate there is a potential significant effect on the environment and trigger an EIR requirement. Dioxin is the accidental and unavoidable by-product of combustion processes involving chlorine. As medical waste contains large quantities of pvc (polyvinyl chloride) plastics, and as the waste gases which will contain chlorinated compounds will be combusted, dioxin will surely be emitted into the air.

Studies from the United States Environmental Protection Agency and prestigious scientific bodies in the U.S. and around the world document that dioxin is one of the most toxic substances known to science, is super-toxic in minute doses of exposure, bioaccumulates in our bodies and food chain, and is linked to profound illnesses in humans including cancer, reproductive, developmental, immunological and other problems.

The Air District should have more thoroughly evaluated the potential impact of dioxin emissions from regular operations and from possible upset conditions at the plant on people living and working near the proposed project, and on agriculture and the dairy in immediate proximity to the site. Dioxin has a tremendous impact on our food chain, including crops and dairy, and the Air District erred in not fully evaluating such impacts.

3. The Air District failed to due a Cumulative Impact Analysis to determine the real, actual potential impact on health and the environment:

To assess the potential impacts on health and the environment, a proper cumulative analysis should have been done to evaluate the possible maximum emissions of dioxin and other pollutants from this proposed facility combined with other pollution sources in the area and the high levels of dioxin residents already have in their bodies. For example, other dioxin sources in the area include the thousands of diesel trucks that travel past Red Bluff every day on the interstate highway, and possibly also includes the Westates Carbon facility (we know their facility in Parker, Arizona emits dioxin).

4. Air District failed to properly evaluate potential upsets and catastrophic failures:

A proper study in an EIR would also look much more thoroughly at the possibility of upsets and catastrophic failures at a plasma arc facility, certainly a concern due to the high temperatures used. The information provided by InEnTec in their Air Permit Application – Supplemental Information raises serious concerns about how thoroughly the issues and potential impacts are being discussed and evaluated. On page 13 of the Supplemental Information submitted by Inentec, in Section 2.2.8 (incorporated as Exhibit H) they discuss “Off-normal Flare.” Their document states:

“In the event that the electrical generation system experiences an unplanned shutdown during the processing, the syngas is vented through an off-normal vent to an off-normal flare that combusts the syngas to water and carbon dioxide before

discharging to the atmosphere.”

We believe that the combustion of the syngas, which will contain toxic chemicals and metals in it, will not just emit water and carbon dioxide but will result in the emissions of some quantity of toxic pollutants into the air, including dioxin. This omission, or error, in the analysis taints the permit application and invalidates some of the assumptions made by the Air District about emissions from this project. There is a huge difference between emissions of dioxin and emissions of water and carbon dioxide, and this difference can truly impact the overall emissions of a project in real time operations.

The inadequate analysis for this permit continues in the same Supplemental Information document on page 20 (incorporated as Exhibit I) in section 3.2 “Off-Normal Operations.” This section states in relevant part the following:

“Two events can occur where the syngas production is at a steady condition and the normal oxidation by the genset is disrupted. Under these off-normal conditions, the syngas must be combusted to prevent the release of carbon monoxide. These conditions are:

- Failure or shutdown of the genset, and
- Plugging of the offgas system.

.....However, there would be a period of minutes where materials fed to the PEM tm prior to the upset condition was not fully consumed and would continue to produce

syngas. Under these conditions, the syngas will be diverted to the flare for combustion...”

Section 3.2.1 (Flare Emissions Under Off-Normal Conditions) of the same document (Exhibit I) then goes on to states that “Under these off-normal conditions syngas would continue to be generated for up to 30 minutes and some additional criteria pollutant emissions (CO, NOx, etc.) would be released.”

However, we believe that additional toxic pollutants in addition to criteria pollutants would be released during such an upset condition, and that needs to be evaluated. Importantly, having 30 minutes of such emissions is a serious incident and we are unaware if such emissions were accurately evaluated by the Air District. Clearly this has the potential to have a major, significant impact on health and the environment.

Section 3.2.3 (Idling Vent during Off-Normal Operations) raises similar and additional concerns. This section states that “The idling vent will release uncombusted syngas when two simultaneous system failures occur....The time duration for this event is indeterminant but is expected to be less than 30 minutes.”

We are unaware that these facts were fully evaluated by the Air District. Inentec, in the language cited above, admits that there could be release of uncombusted syngas for an indeterminant amount of time. This could be quite serious, if not catastrophic, and we do not believe these issues were fully or properly evaluated in the permit process.

5. Other waste streams that would be treated are not described or evaluated:

InEnTec's project description (See Exhibit C) submitted by the company as part of the supplemental information for their permit application says that the project "...will receive and process medical waste materials and other non-hazardous controlled materials..." A review of the permit application and supporting documents does not reveal, to our knowledge, what these "other non-hazardous controlled materials" are. Nor do we see any evaluation in the permit record of an evaluation of potential emissions from the treatment of these unnamed materials in the plasma arc. What are these materials? The Air District cannot properly evaluate the emissions from a waste stream that has not been clearly identified, and as such the evaluation is defective. We believe such materials could include guns, drugs and counterfeit money, and if so there are potential hazardous emissions associated with the disposal of such materials in a plasma arc facility.

6. Air District violated CEQA by not performing an EIR for this project that may have significant effect on the environment:

In addition, California law is clear that an EIR should have been conducted for this type of project: "All local agencies shall prepare, or cause to be prepared by contract, and certify the completion of, an environmental impact report on any project that they intend to carry out or approve which may have a significant effect on the environment." (California Public Resources Code section 21151 (a). (See Exhibit E).

It is clear from the facts, including scientific realities and the actual operations of IET/Inentec's equipment and other facts, that this project has at least the potential to have a significant effect on the environment and that the Air District did not accurately or thoroughly evaluate all potential emissions. As a result, the permits should be rescinded.

E. Inentec makes certain claims that require serious, thorough scrutiny:

1. The technology is not “pollution-free” as Inentec claims in writing:

Inentec claims in their printed material (<http://www.inentec.com/pemprocess.html>) the following which we incorporate as Exhibit J:

“The environmental attractiveness of the PEM system results from very clean, pollution-free operations....”

In another company (Integrated Environmental Technologies) document, “General Description of the Plasma Enhanced Melter” they claim in section 1.2.7 of that document (incorporated as Exhibit K) the following incorrect statement about emissions in footnote 6: “The PEM tm system does not form dioxins and furans for several reasons....”

The fact is, as the company knows very well, their technology is not pollution-free and does emit some quantity of dioxins. The company itself has provided emissions data to the Tehama County Air Pollution Control District from test burns at other facilities that clearly show some pollution

including dioxin. It is troubling that they would claim their technology is pollution-free and does not produce dioxins when they know that is not correct.

The Air District erred in not acknowledging and evaluating this serious contradiction contained in the company's own information. The above facts raise serious questions about the accuracy of claims made by the company, and require extensive scrutiny of all data submitted by the company in a thorough and comprehensive environmental impact report process.

2. Inentec's claim that their technology is being successfully used in commercial systems must be closely scrutinized due to equipment and other problems at facilities they mention.

Inentec's website at <http://www.inentec.com/commercial.html> (incorporated as Exhibit L) states the following:

“IET has sold several commercial PEM units throughout the world to process a wide range of waste materials. A few of these systems that are already successfully operating at customer sites, processing waste are shown below.”

Five facilities are then discussed by Inentec. The following information about these five facilities has been compiled from information provided by William Quapp of IET/Inentec, regulatory agencies, newspapers and other research. This information contradicts the claims that these are five commercial systems successfully operating using the IET technology.

Allied Technology Group, Inc. (ATG):

On December 21, 2004 Mr. Quapp of IET/Inentec informed Bradley Angel, Executive Director of Greenaction during a telephone conversation that the Allied Technology Group facility was closed due to “financial and operational problems.” Our own research has confirmed this analysis. It is extremely troubling that this information was never provided by IET/Inentec to the Tehama County Planning Department, the Air District or the public.

The IET plasma arc equipment at the ATG facility had many problems. The Tri-City Herald newspaper (incorporated as Exhibit M) reported the following on September 23, 2001 (“Radioactive red ink glitches stall progress at Allied Technology Group melter, but officials still optimistic”):

“The problem is the sophisticated equipment keeps shutting itself off. That means Allied Technology Group cannot conduct a demonstration for state and federal regulators, whose approval is needed before the so-called GASVIT system can operate at full speed. Its official test run is now 10 months behind schedule. And because of the delays, ATG has piled up at least \$12 million in overdue debts and is flirting with bankruptcy.”

The Tri-City Herald reported on September 27, 2001 (incorporated as Exhibit N) that “...the “system routinely shuts down because of problems with the emissions equipment.” The article also said “...ATG has been unable to work out of the bugs in the systems, so it cannot get the

permits to operate at full capacity.” (Stang, John. 9/27/01. Tri-City Herald. “ATG lays off 55 workers, delays testing of glassification system”).

Asian Pacific Environmental Technologies/Hawaii Vitrification Facility:

This facility has drawn the ire of residents and regulators in Hawaii due to numerous problems and violations, and has had serious problems with the plasma arc equipment. In addition, according to State of Hawaii Department of Health officials, the facility was never tested or monitored for air emissions, so residents are being exposed to some amount of pollution without their knowledge or consent.

The State of Hawaii Department of Health confirmed in an email sent by Nolan Hirai on May 17, 2005 (incorporated as Exhibit O) that “The unit was out of service from August 2004 till about a month ago (about 8 months or so)”. Hirai’s second email of May 18th stated: “According to the facility, they were down due to refractory problems with the unit.” I have attached both emails as part of these comments. This problem with the plasma arc equipment, supplied by IET, comes in the wake of other earlier problems with the equipment at the same facility.

In May 2004 the Hawaii Department of Health filed a complaint against Asia Pacific Environmental Technologies in an enforcement action citing major violations at the Hawaii Vitrification Facility. The company apparently blamed equipment problems with the plasma arc for the illegal stockpiling of wastes, although any problem with IET’s equipment would not justify APET’s violations which were serious and unacceptable. However, the possible

equipment problems that were potentially associated with these incidents certainly are relevant to knowing how IET/Inentec's plasma arc equipment operates.

The State of Hawaii Department of Health Notice and Finding of Violation, dated May 19, 2004 (incorporated as Exhibit P) states on page 5 states the following:

“31. Information submitted by HMV on or about December 12, 2003, indicates that the PEM system was out of service from May 27, 2003, through August 8, 2003.

32. The records show that in 50 days between May 27, 2003 and August 8, 2003 ...the PEM system was out of service.

33. Information submitted by HMV ...indicates that the PEM system was out of service from November 14, 2003, through December 18, 2003.”

The above clearly shows that the IET plasma arc system has had serious, repeat problems.

IET/Inentec should have informed regulatory agencies in Tehama County about these problems with their plasma arc equipment to the extent they are aware of them. Under any circumstances, however, as this information is now known it is imperative that the problems with the IET/Inentec plasma arc equipment be reviewed and investigated as it is completely and totally relevant to the decision of whether or not to issue a permit for this technology in Tehama County. The agencies cannot just review the glowing claims of a company, but instead must

review all relevant information particularly when that information may contradict the claims of the project proponent and when it raises questions about the ability of the technology to perform as the permit applicant claims.

Fuji Kaihatsu

Inentec's website claims this facility is a commercial system "already successfully operating" although we could not find any information whatsoever about it. It does not appear to be an operating commercial facility.

Okinawa PCB Demonstration Unit

Although this is also listed as a successfully operating commercial system on the Inentec website, Mr. Quapp informed Greenaction that it never opened for commercial operations.

BioPure Systems in Malaysia:

Inentec/IET's claim that this supposed commercial system "is already successfully operating... ." does not appear to be correct and if incorrect should not have been listed as a successfully operating commercial system.

In response to an email Greenaction sent to Biopure inquiring about their facility, we received a response on March 15, 2005 from GP Lany, CEO of Biopure Systems Sdn Bhd. (Incorporated as Exhibit Q). Mr. Lany states in his email the following:

"The plant is a demonstration plant of 2 tpd and is in the process of commissioning."

A demonstration plant in the process of commissioning is not a successfully operating commercial system, and Inentec should have made this clear to Tehama County regulatory agencies and the public.

Conclusion:

It is clear that this project may have a significant impact on the environment, and it is clear that many relevant facts have not been properly or thoroughly evaluated by the Tehama County Air Pollution Control District.

The public is entitled, as citizens whose health and well-being could potentially be impacted by this project to have the Inentec project properly evaluated, and to have a say in a formal public process. It is the public's right under the law, and as human beings who value the health of their families, friends and neighbors.

We respectfully request the Hearing Board of the Tehama County Air Pollution Control District hold a public hearing on this appeal, cancel the permits issued to InEnTec Medical Services, LLC and conduct a proper, lawful and thorough review of the permit applications.

We request that a public hearing on this appeal be held in the evening so working people in the community can attend, and that the hearing be extensively publicized by the Tehama County Air Pollution Control District.

Respectfully submitted,

Daniel E. Irving

Citizens for Review of Medical and Infectious Waste Imports into Tehama County

and

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