National Institute for Occupational Safety and Health (NIOSH)
Worker Outreach Meeting for Huntington Pilot Plant

Meeting Date: Tuesday, March 23, 2010, 11:00 a.m.

Meeting with: Members of United Steelworkers of America (USW) Local 40 and Steelworkers Organization of Active Retirees (SOAR)

Location: USW Local 40 union hall, Huntington, West Virginia

NIOSH Team:
Tom Tomes, National Institute for Occupational Safety and Health (NIOSH) Office of Compensation Analysis and Support, Health Physicist

Mark Lewis, Advanced Technologies and Laboratories International, Inc. (ATL), Senior Outreach Specialist

Mary Elliott, ATL, Technical Writer/Editor

Proceedings

Mark Lewis opened the meeting at approximately 11:00 a.m. He stated that he has worked for the past six years for ATL as an outreach specialist helping the National Institute for Occupational Safety and Health (NIOSH) for the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). The purpose is to supplement the information that NIOSH receives in the "official" documents that are being used to develop site profile documents with the actual work experiences of employees in the U. S. Department of Energy (DOE) nuclear weapons complex.

Mr. Lewis described his background as a long-time employee from the Portsmouth Gaseous Diffusion Plant in Ohio. He was a safety and health representative for many years in the union representing workers at that site, which is now a local union of the United Steelworkers of America (USW).

Mr. Lewis introduced Mary Elliott, also of ATL. Ms. Elliott explained that the NIOSH sign-in sheet is voluntary and the information is protected by the Privacy Act. Ms. Elliott asked the attendees for permission to record the meeting. She explained that the recording is used only as a tool for writing minutes of the meeting. All personally identifiable information will be removed from the minutes, and the draft minutes will be submitted to the union for review before the final minutes are posted on the NIOSH Web site.

Mr. Lewis introduced Tom Tomes of NIOSH. Mr. Tomes stated that EEOICPA is a federal program to provide compensation and medical benefits to workers from the DOE nuclear weapons complex that may have become ill with cancer or other diseases due to their occupational exposures to radiation or toxic chemicals. The program is administered by the U. S. Department of Labor (DOL) under two parts: Part B compensates for radiation-induced cancers and Part E compensates for diseases resulting from toxic chemical exposures in the workplace. NIOSH and its contractors perform dose reconstructions, develop and maintain the documents

that are used in dose reconstruction, and evaluate petitions for the Special Exposure Cohort (SEC). Mr. Tomes has been involved with the site profile for the Huntington Pilot Plant (also known as the Reduction Pilot Plant, or RPP) from the time the document was first developed. The document development process can take a long time because NIOSH must request documents from DOE that must sometimes be declassified. Workers from the facilities may also be interviewed for information about the site as part of the document development process.

Mr. Tomes stated that NIOSH receives Part B cancer claims from DOL after the workers' medical and work information is verified. NIOSH performs radiation dose reconstructions for only the Part B claims. It is possible that many more claims have been filed with DOL that did not meet the eligibility requirements for EEOICPA compensation.

Mr. Tomes explained that after receiving a Part B claim, NIOSH requests the worker's records from DOE. A NIOSH contractor interviews the claimant via telephone to get work history information, which is used along with the DOE records, the site profile, and other site-specific documents to reconstruct the worker's radiation dose. NIOSH uses claimant-favorable methods to give the worker the highest possible feasible dose. The dose reconstruction is used to determine the likelihood that the worker's radiation dose may have contributed to the cancer. This is called the probability of causation, or POC. If the POC is at least 50%, the claim may be compensated by DOL.

Mr. Tomes briefly explained the Special Exposure Cohort (SEC), which was written into EEOICPA as a way to compensate certain classes of workers when there is not enough information available to perform their dose reconstructions. To be eligible for automatic Part B compensation under the SEC, a worker must have one of 22 specific cancers and must have worked for at least 250 days during a covered period of an approved SEC petition. SEC claims do not come to NIOSH for dose reconstruction. Four SEC classes were included when the law was passed: The three gaseous diffusion plants in Kentucky, Ohio, and Tennessee, as well as Amchitka Island, a nuclear test site in Alaska.

Mr. Tomes stated that the EEOICPA statute provides a way for additional classes to be added to the SEC for other sites:

- Workers or their survivors, their authorized representatives, or labor unions representing workers at the DOE weapons sites may file a petition with NIOSH. The petition must meet certain criteria to qualify for evaluation.
- If the petition qualifies for evaluation, NIOSH determines whether dose reconstruction is feasible for the petitioned class.
- If NIOSH finds that dose reconstruction is not feasible, NIOSH recommends to the Advisory Board on Radiation and Worker Health that the class of workers described in the petition be added to the SEC.
- If the Board agrees with NIOSH, it recommends to the Secretary of the U. S. Department of Health and Human Services (HHS) that the petition be included in the SEC.
- If the Secretary of HHS agrees, she recommends to Congress that the petition be added to the Cohort.

- If Congress does not act on the Secretary's recommendation within 30 days, the petition is added to the SEC.

Mr. Tomes stated that NIOSH met with USW Local 40 in January 2006 to discuss the site profile for the Huntington Pilot Plant. This document contains site-specific information that is used in dose reconstructions. During that meeting, NIOSH also provided information about the compensation process and gave workers the opportunity to talk about their work experiences. Since that meeting, NIOSH has received additional information from DOE about the site. NIOSH evaluated that information and revised the site profile. Mr. Tomes explained that when site profiles are revised and the information has an impact on dose reconstructions, DOL returns any previously denied claims that may be affected by the additional information. NIOSH performs a second dose reconstruction on these claims to determine whether they may be compensated.

Mr. Tomes stated that the site profile contains information about the Huntington Pilot Plant's operational period under the contract with the Atomic Energy Commission (AEC) from 1951 through 1963, as well as the residual contamination period. He explained that the AEC built the Huntington Pilot Plant in 1951 to supply nickel powder for use in the Paducah and Portsmouth gaseous diffusion plants. One source of the nickel was scrap nickel which was contaminated with uranium. The plant was shut down in 1963 and maintained in standby condition until it was demolished in 1978 and 1979.

Mr. Tomes stated that copies of the revised site profile and other printed materials about dose reconstruction and the SEC were available on a table at the back of the room. He added that claimants having questions about their claims or people needing to file claims should contact DOL, but questions about individual dose reconstructions could be directed to NIOSH. Mr. Tomes stated that people who had worked at the site could submit information to him during the meeting, or could submit it in writing to NIOSH later. He opened the floor for questions and comments.

Unidentified Attendee:
Has anyone from the Pilot Plant been compensated? How many claims have been filed?

Mr. Tomes:
NIOSH has received 83 claims from DOL for dose reconstruction, most of which have been completed. Approximately 12 to 15 claims have been compensated.

Unidentified Attendee:
Are other diseases covered in the radiation part (Part B)?

Mr. Tomes:
Chronic beryllium disease (CBD) and silicosis are also covered under Part B, but DOL reviews those claims. NIOSH only gets the cancer claims for dose reconstruction. Part E claims for diseases caused by toxic chemicals are handled solely by DOL.

Unidentified attendee:
Are you familiar with Kevin Clausing? He was the Director of the Energy Employees Compensation Resource Center in Portsmouth, Ohio. He was here last time.

Mr. Lewis:
He went back to his former job at the Portsmouth Gaseous Diffusion Plant.

Former Houdaille Industries employee:
My name is [name redacted]. I am the [redacted] of the Houdaille Retirees' Association. We all filed EEOICPA claims and received letters from DOL stating that we weren't eligible for the program because Houdaille Industries did not have a contract with the AEC as a nuclear weapons facility. Our appeal to be added to the list of eligible facilities was turned down. International Nickel Company (INCO), the contractor for the Huntington Pilot Plant, had supplied Houdaille Industries with radioactive nickel powder that was reclaimed from scrap from DOE nuclear weapons facilities. The company had once been the largest producer of nickel-plated automobile bumpers in the world.

[Name redacted] described the difficulty that the company had using the contaminated nickel, which had been used at least until 1970. The facility remained contaminated until it closed in 1980. [Name redacted] stated that he had submitted a petition to his Congressman to add Houdaille Industries as a covered facility because INCO had not disclosed that the nickel that it sold to Houdaille had come from radioactive scrap from the DOE facilities.

[Name redacted] described various illnesses that had afflicted his fellow workers, which he attributed to radiation exposure from performing various duties on the line where the contaminated nickel was used. He stated that 488 Houdaille employees had died since the plant closed in December 1980. He concluded by stating that the Houdaille employees were exposed to uranium due to negligence, but DOL had denied their appeal to be added because Houdaille Industries had not had a contract with DOE.

Mr. Tomes thanked [name redacted] for his statement. He confirmed that Houdaille Industries is not covered under EEOICPA.

Unidentified attendee:
Let me shed a little light. I'm not pointing a finger. I don't have any definitive proof, but we have some pretty good documentation that the stuff that came out of that RPP was smelted in the main plant. Everybody who was in there was exposed because you could smelt it one hundred times and it would still be just as "hot" and it will be for 10,000 years. Just because INCO says that other people who didn't work in the RPP plant were not exposed, it doesn't mean they weren't. The members of USW Local 40 will tell you that INCO's word lacks integrity. There is a log written by one of the foremen from the RPP plant about how they brought it down after hours on the evening shift and smelted it. I don't know how you could prove that, but my personal opinion is that there were a whole lot more people exposed than the people who worked at the RPP. I don't expect you to have to be the one to find out who is lying and who is not.

Mr. Tomes:
I cannot agree or disagree with what you are saying. I want to hear anything you have to say if it might affect what NIOSH does. I can only tell you what is in the DOE records that I have seen and what is written in the site profile. The plant was opened in 1952, but operations were delayed due to problems. When the problems were worked out, INCO began processing nickel oxide according to AEC specifications and shipped it to plants that were operated by the AEC. In the mid-1950s, INCO began an experimental process using nickel scrap from AEC facilities, some

of which was contaminated with uranium. There are multiple records documenting that. The plant was modified to process massive quantities of nickel. In the late 1950s, INCO produced millions of pounds of nickel for the AEC facilities, some from clean scrap that was furnished by the AEC and some from contaminated scrap. Before they shipped it to INCO, the AEC decontaminated the scrap containing uranium as much as was possible; but it could not be completely decontaminated. NIOSH has records documenting the amount of uranium that was in the material shipped to INCO. For example, one of the records documents the amount of uranium that came out of the last three million pounds of scrap. The scrap was processed in batches of 4,000 pounds and the residue was collected in 20-gallon drums and shipped back to the AEC. When the AEC sent the nickel to INCO, they knew it was contaminated. It was a planned project.

Same unidentified attendee:
They knew it was contaminated and they planned to put that out in public?

Mr. Tomes:
I did not say that they planned to put that out in public. I was not in the plant, so I can only tell you about the contract requirements. The process was not 100% efficient, so it was obvious that there was going to be contamination to the plant. The process to purify the nickel created waste, which was shipped back to the AEC along with the product. INCO was required to ship both. That is what is in the records, but that doesn't necessarily mean that is the way things happened in the plant. If we receive more information, it will be considered.

Same former Houdaille employee:
There is no way to decontaminate radioactive nickel. They haven't found a way to charge it down or do anything else. The things that they said they did were wrong and you're using the same story because you don't know any different. That black powder that they took off that stuff was nickel carballoy [sic] and they sanded it off by hand or with a grinder or whatever else they could from the rods and tubes when they got tarnished like silverware and that stuff was "red hot radioactive." They took all that powder off and they didn't send it off to make atomic bombs with it. They put it in barrels and shipped it off and buried it in Tennessee, but they didn't tell anybody about that either. So the stories that you are putting out here – as far as you know it, are the truth. But the story they put out back then was not quite true.

Mr. Tomes:
That was classified information at that time, so people in the main plant would not have known what was going on.

Same former Houdaille employee:
They weren't allowed to tell, or they would read you your rights and put you in jail and you would never be heard from again. It was all top secret in 1950 during the Cold War, but it's in my petition along with the testimonies of doctors and scientists. I've got records right here about how many truckloads from that building [RPP] that they took to Portsmouth to be buried. It was so "red hot radioactive" that they buried the trucks with it. That building was about 30% hotter all that time it stood up there before they tore it down. The men that worked in the plant often went in there to get electric motors and other parts they stored in the building. They would sit down and eat their lunches in that place. One of my friends was a pipefitter who worked at the plant. He has Parkinson's disease and can barely get one foot in front of the other. He went into

the building to do pipe work and everything else. [Redacted] worked in acid reclamation at the nickel plant. They didn't have acid reclamation over there, so they pumped it over to the nickel plant. When he died, he had warts all over the back of his head and brown spots all through his brain. He got that all cleared up with radiation [treatment] and then went to the hospital and died when something ruptured in his stomach. These stories have got to be brought out some way. If DOE wants to keep going out and squashing it like a fly, then they're going to get sued over it because what they did was negligence. It was wrong to make all these people do that without any protection or knowledge of it. The doctor said he died of heart failure. Well, everybody dies of heart failure unless they get hit by a car. Back then, doctors didn't know how to diagnose radiation poisoning.

That hillside out there – for 12 years they couldn't get anything to grow out there. They said that was from the smoke from all these stacks, but that's really beside the point.

They are not being honest with us. The Labor Department turned all our people down [Houdaille employees] and they sent the same letters to our senators and representatives.

Those men who handled that stuff didn't know what they were handling. They took that stuff and chopped it up and put it in cardboard boxes and put it on a skid. Then they would take it over there [RPP] at night time and put it in the electric furnace to heat it up and melt it down. They didn't know that it was still radioactive after they got it out of there. You can't kill [the radiation] by heating it up.

I couldn't begin to tell you some of the stories that are coming out of the Energy Department.

Former INCO worker #1:
How is this going to affect the ones who got asbestosis? INCO hasn't paid a dime to the guys who have asbestosis.

Mr. Tomes:
Asbestos claims are handled by DOL. I'm not trying to dismiss your question. NIOSH doesn't deal with that part of the program. Mesothelioma would be handled the same way. I'm not familiar with how they handle those claims.

Former INCO worker #2: We have a lawyer in Charleston who is handling the mesothelioma claims. You can get up to $250,000 if your claim is accepted, but it is handled under a different part than the radiation. I've gotten paid some for that, but a relative of mine got the $250,000.

Former INCO worker #3:
I went to work at the plant in early 1957. Anyone who knows anything about the RPP knows that nothing would grow on the north side of hill. Not even a wild onion would grow on the hill – no trees or even grass. After the RPP closed – after they discontinued the uranium work, it was at least 15 years before anything would grow there.

We brought over material from RPP to the refinery and would melt it down in the #1 electric [furnace]. There would be times when it would blow out and the laborers would have to go sweep up the dust, put it back in the furnace, and then smelt it again and pour it. This is stuff that INCO didn't write down. I have seen times when they would bring records up there on wrapped pallets under guard. They would put the pallets down in the furnace and burn the records up so

nobody would know what was going on. I saw that so many times that it wasn't funny. It had to be evidence on something or they wouldn't have been burning it. If one sheet of that paper would fly out of the furnace, they would make the guard go down in the pit to retrieve it and put it back into the furnace. There was a lot of stuff that took place at INCO that people will never, ever know. They burned a lot of records, maybe even medical records. I worked for INCO for 35 years, [redacted] and 34 years of that was in the refinery. If they wanted to destroy something, they didn't shred it. They brought it out to the refinery and burned it right in the furnace with the metal.

We all breathed the fallout from the RPP. Everyone got a little dose.

I had a quadruple bypass in 1982. I retired in [redacted]. I had the same bypass surgery for the same four arteries again in 2000. I don't know whether the fallout from the RPP had anything to do with that, but I know that it happened to me.

Things happened at that plant that people will never know because the records were burned up. It happened under guarded security.

INCO sent people into RPP after the plant was dismantled because they kept all the motors. [Name redacted] and I went into the building one time looking for a motor and had to brush the dust off the tags to make sure we were getting the right motor before we took it out to someplace else in the plant.

Former INCO Worker #4:
What diseases can radiation actually cause? I have been told that kidney disease, prostate cancer, bladder cancer, brain disease, and all kinds of things can be caused by radiation.

Mr. Tomes:
A number of cancers are linked to radiation. There is pretty solid proof for some of those cancers from the study of the Japanese atomic bomb survivors. That study is the biggest single source of data on the effects of radiation. Only chronic lymphocytic leukemia (CLL) is not covered under EEOICPA, but work is in progress to get that added. Other types of leukemia are covered under the program.

NIOSH only evaluates radiation induced cancers, not any other diseases. Those are covered under Part E and handled by DOL.

Former INCO Worker #5:
How many claims have been paid from the RPP? Did I hear correctly that there are roughly 283 claims? Where is that reflected? Are those Part B claims?

Mr. Tomes:
NIOSH has received 83 Part B claims for the RPP.
Former INCO Worker #6:
Why are they just now doing an evaluation? Most of the men who worked in the RPP have probably passed away.

Mr. Tomes:
During the late 1990s, workers at the Paducah Gaseous Diffusion Plant and other facilities raised

a number of issues about their occupational exposures prior to that time. This became a very public issue. Congress enacted EEOICPA in 2000 to provide benefits for workers who had become ill. This is not to say that DOE did not have a safety program in place, but the program was not necessarily effective in all cases. Radiation safety has evolved over the years to be more restrictive than it was many years ago.

EEOICPA was set up to provide benefits for workers with radiation-induced cancers under Part B, and illnesses from toxic substances under Part E. By enacting the law, the government acknowledged that these workers may have had excessive exposures. NIOSH does dose reconstructions for Part B claims for cancer.

Same former Houdaille employee:
I used to have a newspaper photo of about 30 men sitting in this room during a meeting with the government. The picture showed a man receiving a compensation check for $168,000 for medical expenses some time before 2000. If anyone has that picture, I would like to have a copy.

Former INCO worker #3:
The RPP workers who came back into the main plant after the RPP operation shut down were not allowed to talk about it.

Mr. Tomes:
I am assuming that the information was still classified at that time. That is typical of DOE classified operations.

Unidentified attendee:
Are you aware that part of the Pilot Plant is still there?

Mr. Tomes:
I am aware that the Compressor Building is still standing on the property now owned by DOE.

Unidentified attendee:
The only building that is there now is the building that had the waste water treatment plant on first floor. The compressors were removed. I helped load it all out. I was there when the pipefitter went in with the man in a white suit. We didn't go in, though.

Same former Houdaille employee:
Did you know that the federal government still owns a 200 square feet section of the INCO parking lot? The nickel plant started to build a warehouse out there and was stopped because the government owns part of the lot.

Mr. Tomes:
I am not aware that DOE still owns the property. The information that I have says that DOE began the decontamination and decommissioning of the RPP in 1978 and finished in 1979. During a 1980 survey by DOE Oak Ridge, the outlying area around the RPP building and the elevator shaft were found to be radioactive and were decontaminated again. NIOSH has those records.

Does anyone else have other questions?

[Name redacted], West Virginia AFL-CIO:
I appreciate the work that NIOSH does to help these workers get compensation. Who operated the RPP?

Mr. Tomes:
INCO was the contractor that operated the plant.

[Name redacted]:
Was the project supervised by an employee of AEC?

Mr. Tomes:
The AEC provide oversight of the project.

[Name redacted]:
Were AEC personnel on the premises?

Mr. Tomes:
Typically, the AEC would have been providing contract management, but not necessarily on site all the time.

[Name redacted]:
Were the facility records sent to Oak Ridge or to another facility?

Mr. Tomes:
Some of the records were sent to Oak Ridge and some may have gone to other facilities. Two weeks ago, we found some RPP records in a classified storage area. NIOSH personnel who had a security clearance examined the records and provided me with an unclassified summary. NIOSH does not believe that the information would affect anything, but we have asked for declassified versions of the documents.

[Name redacted]:
I had the opportunity to review the 2004 report (referring to the HPP Site Profile), but I have not reviewed the 2008 report. Did that supersede the 2004 report? Are there classified documents that you personally have not reviewed?

Mr. Tomes:
Records retrieval is an ongoing process. Our contractor continues to search for documents for the many sites affected by EEOICPA.

[Name redacted]:
Is there a probability that there may be a lot more records for the RPP that may affect the workers' radiation doses?

Mr. Tomes:
The preliminary review of the records by DOL indicates that these are not exposure records. I have yet to see for myself if the information will be useful to NIOSH.

[Name redacted]:
Did I understand you to say there are only three plants that have specifically qualified for the SEC?

Mr. Tomes:
No. Congress designated the three gaseous diffusion plants as SECs in the EEOICPA statute, along with Amchitka Island, Alaska. The statute includes a petitioning process to add classes to the SEC.

[Name redacted]:
Is the RPP part of the SEC?
I understand that NIOSH continues to revise the RPP site profile. These gentlemen may be able to give more specific information about the site that could help [with dose reconstruction]. Last week, I received the diary of [name redacted], a supervisor at the plant. His family found his personal diary after his demise. In that diary, he wrote about mishaps at the plant such as equipment malfunctions and releases of material into the environment. Has NIOSH had an opportunity to review that diary?

Mr. Tomes:
I have not seen the document. Can I get a copy of it?

[Name redacted]:
I can give you a copy. I think that it may be extremely important to help NIOSH understand where there may have been increased exposures. Could that information change the exposure data?

Mr. Tomes:
It may or may not affect the dose. If NIOSH evaluates the information and sees that it may give higher dose estimates, DOL will reopen any affected claims that were previously not compensated and NIOSH will re-evaluate those claims.

[Name redacted]:
Have you been able to determine whether the men working in the RPP wore special protective clothing? Would that be important in evaluating the exposure?

Mr. Tomes:
To be claimant favorable, the NIOSH model assumes that there was no protection when there is no information about that. We assume that no respirators were worn to address inhalation concerns.

[Name redacted], USW International Representative:
Assuming that they wore respirators – with that assumption alone, would opportunities for secondary exposure still be considered, such as dust on the workers' clothing or other contamination?

Mr. Tomes:
Yes, dust could be a consideration. There are two classes of radiation exposure: internal exposure (inhalation) and external exposure. Both are considered as potential exposures in the dose reconstruction.

[Name redacted]:
I understand that only Part B claims go to NIOSH, and that DOL administers Part E claims. How can these workers go about getting benefits under Part E?

Mr. Lewis:
I suggest that they contact the DOL Resource Center in Portsmouth, Ohio. We brought their contact information, too.

[Name redacted] to Mr. Lewis:
Does Part E include INCO workers who were not specifically assigned to the RPP?

Mr. Lewis:
The Portsmouth Resource Center should be able to answer that.

Mr. Tomes:
DOL determines employee eligibility for EEOICPA.

[Name redacted]:
The workers who are not eligible for EEOICPA may be able to file claims for their occupational illnesses under the West Virginia Workers' Compensation Program. If a worker qualifies for both programs, the awards may offset the compensation amounts. My office sends a representative here to your local on the first Wednesday of every month. I appreciate what NIOSH has done. I am very familiar with their good works. Would the causation and conclusions that NIOSH makes for a worker's case be available to our office if we would need it for a Worker's Comp case?

Mr. Tomes:
I do not know the answer to that. The worker's information is protected under the Privacy Act. I would suggest that you call NIOSH to see if there is a procedure for giving information to other compensation agencies.

[Name redacted]:
One of the problems that we have in a case like this is proving the causation factor. We have to have a doctor render an opinion on whether a worker's cancer was caused by radiation. If the information from NIOSH was available, it would certainly help with the cost factor of administering the claims. Some of these gentlemen may not be able to pay for a doctor's expert opinion.

Mr. Tomes:
I have not heard of any of our records being provided to any other agency like that.

Same former Houdaille employee:
The problem with Worker's Comp claims for Houdaille workers is that they are dropped from the list if it has been more than two years since their illness was diagnosed.

[Name redacted]:
That's three years by law. If you have never been told by a doctor, or have good reason to believe that your disease was caused by your occupational exposure, then the three years doesn't start until that doctor gives you a diagnosis.

Former INCO worker #4:
I worked in the primary [INCO] mill. We had hazardous waste books in every department for all

the hazardous materials that they used in the plant. When people started having problems related to asbestos, all those books disappeared.

Mr. Tomes:
That would not affect any of the work that NIOSH does. Does anyone have any other questions about the Reduction Pilot Plant or our program? (No response.) Thank you for your time. It has been an interesting meeting.

Mr. Tomes concluded the meeting at 12:20 p.m.

Materials Distributed During the Meeting:

- Technical Basis Document for the Huntington Pilot Plant, Huntington, West Virginia (OCAS-TKBS-0004)
- NIOSH Fact Sheet: Dose Reconstruction
- NIOSH Fact Sheet: Probability of Causation
- NIOSH Fact Sheet: Technical Documents Used During Dose Reconstruction
- Contact Information for DOL Resource Center, Portsmouth, Ohio (printout from DEEOIC Web site)